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Interior and Finishing Work, 1835-1836

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Chapter 5

Interior and Finishing Work, 1835–1836

With the completion of the roof, interior woodworking began in earnest. During the fall and winter of 1834–35, workers had been busy felling timbers for seasoning while craftsmen drew detailed plans for implementing the rough outline of pews and pulpits indicated by Joseph Smith and his associates. Skilled workers in wood relied on previous building experience and carpenter's manuals to work out spatial and ornamental details and create a functional interior of distinctive beauty.

One of the first impressions one receives of the temple's interior is the expansive volume of the lower court. Coupled with the white reflective surfaces, the relatively large number of windows on all sides of the room introduces a great deal of soft, even light into the space. The elliptical vault in the ceiling immediately draws attention to the western pulpits and window, and the intricate carving on both the pulpits and the arch framing the west windows provides a visual focal point for the room (figs. 5-1, 5-2). Only after entering the center of the room is one fully aware of the tiers of pulpits on the east wall that step down into the space symmetrically. Along with the raised seating for the choir to each side, the pulpits create a sense of enclosure for those seated in the pews. This arrangement heightens the worshipful quality of the space by creating a feeling of removal from the world outside.

Jacob Bump and the Lower Court

Much of the preliminary work on the interior of the temple and the design of the decorative motifs in the lower court should be credited to Jacob Bump. He, like Millett, was singled out for a special blessing in the March 1835 service for workers. Christopher Crary, an old Ohio settler who watched the Church come and go in Kirtland, credits Bump with the design and construction of the entire structure.¹ Though documents make it clear that Crary exaggerated the role of his longtime friend, Bump was indeed one of the most important craftsmen involved with the construction.



5-1. West interior of the lower court as it looks when naturally lit.

Photo by author.

Bump's primary skills must have been limited to joinery and plastering, since the foundation and the girders supporting the lower court floor, which he and Reynolds Cahoon supervised, were inadequate for the size of the temple structure. Not surprisingly, Bump's work previous to his arrival in Kirtland was limited to smaller residential-scale construction.² As Bump stayed in Kirtland during the march

Carpenter's Manuals

Carpenter's manuals, also called pattern books, were an important part of nineteenth-century American artisans' equipment. Popular first in England, such manuals gave rules of thumb for structural design, explained principles of geometry, and showed how to build out of simple plank lumber ornate classical elements (columns, capitals, entablatures) originally intended for stone construction. Some American carpenters recognized the potential market for such manuals, and in 1797, Asher Benjamin published the first of seven pattern books that would make him one of the most popular American carpenter-authors.

The popularity of different pattern books tended to follow geographic lines. For example, as a New Englander, Benjamin was popular with other Yankees, and New England emigrants

coming to the Connecticut Western Reserve brought his carpenter's manuals with them. On the other hand, Minard Lefever, another American writer of carpenter's manuals, was popular in central New York. Lefever's influence was rather small in the Western Reserve, but following general settlement patterns, variants on his designs are commonly found in southern Ohio. A number of pattern books were available for sale in the Kirtland vicinity, with Benjamin and Englishman Peter Nicholson being popular authors.¹

"NEW GOODS, JUST received at the Painesville Book Store, and for sale very low. . . . House Carpenters Guide. . . . Nicholsons Mechanic's companion, do operative Mechanic. . . . House Painters Guide." *Painesville Telegraph*, July 5, 1832, 3.



Courtesy Library of Congress.

5-2. West window and pulpits, lower court, Kirtland Temple, photographed April 1934 by Carl F. Waite. Flanking the pulpits are an organ and sacrament (communion) table, which have since been removed.

of Zion's Camp, he and Millett probably spent a good deal of time going over detailed plans and coordinating efforts between the masonry exterior and the wooden interior. Bump's later comments recorded in Millett's son's journal indicate the two men became good friends and respected each other's abilities.³

Bump and other skilled workers on the Kirtland Temple followed the general practice of American builders in freely using carpenter's manuals to develop designs and architectural ornament. Builders commonly combined elements from several different pattern books or changed elements intended for a particular usage or scale to fit the situation at hand. Kirtland Temple craftsmen followed these practices as they took a verbal description and plan outline for the interior and gave them three-dimensional form.

By the fall of 1834, Bump must have been busily engaged in seasoning timbers and obtaining molding planes for the woodwork in the temple. The multiple tiers of pulpits allowed for considerable standardization since the basic curved "stand," or pulpit, is replicated eighteen times in the lower floor and thirty-two of the windows share an identical design. Bump must have made a number of sketches to work out joinery details and compute quantities of lumber and molding profiles before the roof was completed. In fact, some interior ornament could have been produced earlier in the nearby mechanic's hall and set aside for later installation. However, a great deal of the work was done in the lower court, as a visitor to the temple in 1835 recorded: "The



Courtesy Library of Congress.

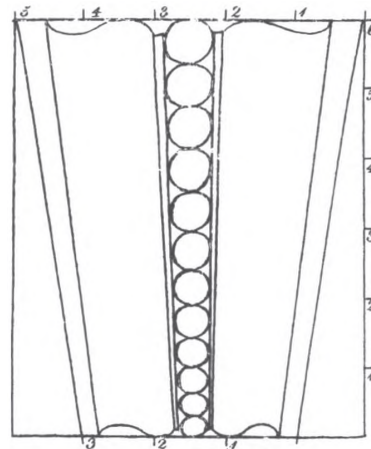
5-3. Pulpits and west window, lower court. Fringed covers on the pulpits covered the graffiti-scarred tops until their sanding and refinishing in the 1960s. The upper arch is composed of egg-and-dart, bead-and-lozenge, and running-guilloche moldings. The lower arch has opposed Vitruvian scrolls and a series of transversely oriented half-round moldings. Photographed by Carl F. Waite, April 1934.

center pews only were finished, outside of these were the workmens benches the only seats we found. The floor was covered with shavings."⁴

The focal point of the lower-court interior is the great window behind the west pulpits (fig. 5-3). The upper arch of this window is formed from decoratively carved molding derived from classical precedents, with ornaments including a running guilloche, plain band, bead and lozenge, and egg and dart. The deeply carved molding and plastic curves of these ornaments are typical of Bump's style. The wide range of stylistic sources is also typical of Bump, a mature craftsman with years of experience. Each of these motifs is found in many pattern books, and identifying an individual source for the design would be virtually impossible were it not for the unusual beaded keystone placed in the center of the arch. These beads seem to be adapted from a design in Benjamin's *American Builder's Companion*, which was published in several editions between 1806 and 1827 (fig. 5-4).⁵ Another ornament, the oval medallion with a stylized acanthus leaf divided by a starlike cruciform element on the interior columns in the courts, is also found only in Benjamin's *American Builder's Companion* (figs. 5-5, 5-6). Originally intended to be placed on a doorway, this oval is elongated slightly to fit the proportions of the pillars in the temple. Apparently, temple builders possessed at least one copy of this carpenter's manual.

Other decorative elements of the lower court reveal the particular edition of *The American Builder's Companion* that workers used. The lower arch framing the west window has a band of widely spaced reeds topped by opposing scrolls that appear to have been derived from the more common Vitruvian scroll. One of the few American sources for a Vitruvian scroll is *The American Builder's Companion*, plate 40 of the first (1806) edition (fig. 5-7);⁶ this scroll was not included in later editions. The use of this early pattern book in the design of the interior of the lower court is consistent with Bump's age, as the 1806 *American Builder's Companion* would have been new when he apprenticed, a time he might have been purchasing reference materials for use in his career.

The pulpits share the same general articulation as the windows and pillars in that they are ornamented with fluted pilasters; a simple, Doric-like capital; a frieze with a running guilloche; and a dentiled cornice (fig. 5-3). A standard entablature, the horizontal element placed on a column or pilaster, would have looked too heavy on the relatively small-scale pulpits, and so Bump eliminated the architrave, or lowest section, that is normally prescribed by classical canon. In addition, Bump reduced the capital to a simple



5-4. Possible pattern from which the beaded keystone of the west window, lower court, was adapted. Detail from plate 31, Benjamin, *American Builder's Companion*, 1806.

5-5. Possible pattern for an ornament on interior columns (compare to fig. 5-6). Detail from plate 30, Benjamin, *American Builder's Companion*, 1806.

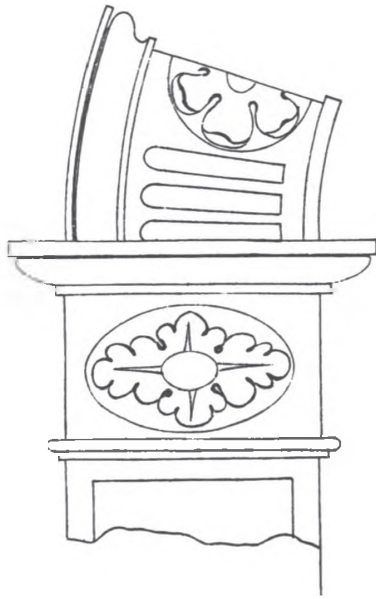


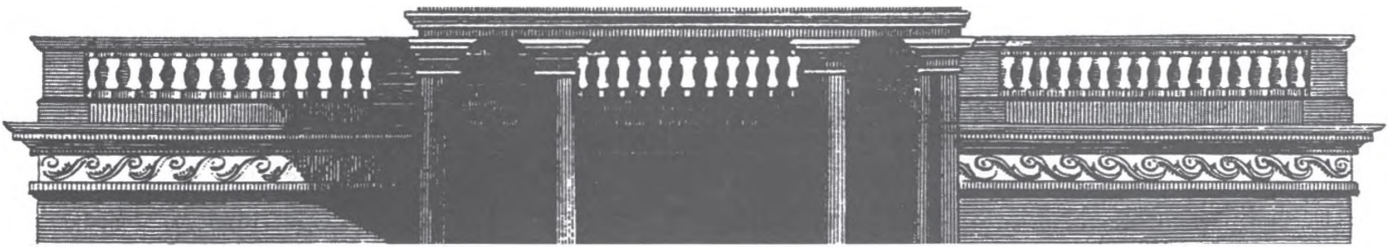
Photo by author.

5-6. Detail of column capital, lower court.

Altering Classical Column Forms

The classical orders were the stylistic basis for the architecture of the Georgian, Federal, and Greek Revival periods, the stylistic periods on which the Kirtland Temple was based. Carpenter's manuals taught American builders how to proportion, frame, and assemble in wood the five classical orders: Tuscan, Doric, Ionic, Corinthian, and Composite. However, in practice the latter two orders were too ornate and complicated for most American builders and were rarely used. And since the Tuscan order is largely an unfluted version of the Doric order, the distinction vanished when these forms were abstracted and simplified by American builders. Hence, the primary orders used in American practice were the Doric and Ionic.

As used by the Greeks, Doric and Ionic columns consist of a column shaft and a capital (the widened portion on top of the column shaft). On top of the column shaft and capital sits the entablature, a horizontal lintel composed of three parts: the architrave, frieze, and cornice. The Romans adopted the Greek system of the orders, but often times used the columns not as free-standing elements, but rather as rounded attachments to wall surfaces. These half-columns placed on wall surfaces are called engaged columns. Another variation was the pilaster, a flattened version of the engaged column. Pilasters were most popular with American craftsmen, as they were easily formed from sawed planks of lumber.



5-7. Detail showing Vitruvian scrolls, from plate 40, Benjamin, *American Builder's Companion*, 1806, one of the few American sources for this ornament.

series of moldings supported by double reeds and rosettes. The three tiers of triple pulpits are well executed, and the manner in which the doors to the pulpits are cut to accommodate the radius of the swing testifies to the skill of Bump and his workers (fig. 5-8).

Bump also modified standard elements in the piers that support the lower-court ceiling. These eight fluted piers have simple Doric capitals. Each capital is capped by discontinuous sections of an Ionic architrave and frieze, with an Ionic cornice running the length of the room defining the edge of the plaster vaulted ceiling.

The practice of mixing Doric and Ionic elements is common in early American building practice, as is the practice of including only small sections of the architraves and friezes. The academically correct classical column is topped with an entablature composed of an architrave, frieze, and cornice. This arrangement works well for the proportion and scale of Greek temples, but when classical orders are used in other situations, such as in interior columns or other woodwork, the standard arrangement often has to be altered either to fit within available space or to remain simple enough to complement other elements of the design.⁷

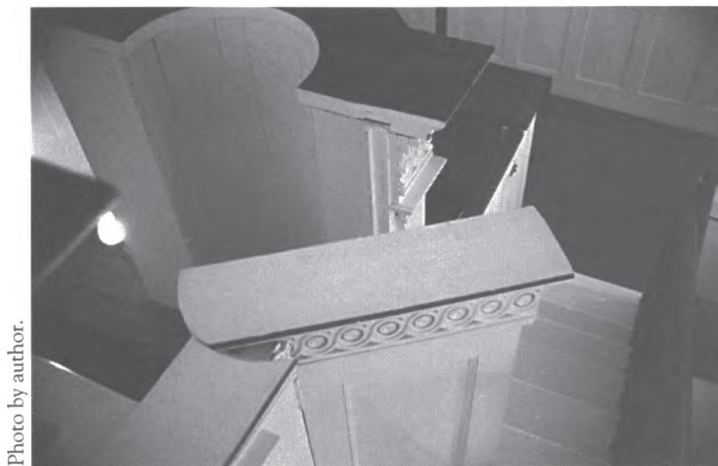


Photo by author.

5-8. The skill of the workers is shown in the way this pulpit door is cut to provide clearance for the door to swing. Lower court, Kirtland Temple.

In this instance, Bump had several reasons for changing the standard classical arrangement. One reason was to keep the capitals on the supporting piers at the same height as those on the pilasters supporting the decorative arch above the big west window. Another reason was to make as simple a transition as possible from the flat ceiling over the side aisles to the elliptical ceiling. Inserting full architraves and friezes above the interior columns would raise the level of the elliptical ceiling's springing, raising the height of the temple another four feet. Finally, the height of a classical column is proportionate to its base diameter; in other words, the width of the column must change with its height. However, architects can "adjust" this system by either placing a column on a pedestal or, as in the Kirtland Temple, by inserting pieces of an architrave and frieze on top of the capital. Using these devices, Bump designed an interior that followed (more or less) accepted rules of design while still fitting within the predetermined structure and walls.

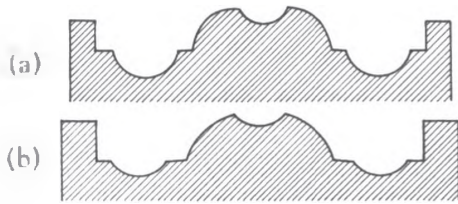
Truman Angell and the Upper Court

The east window in the lower court (fig. 5-9) presents a sharp contrast to Jacob Bump's deeply carved, plastically molded ornament on the lower court's west window. Bump's west-window moldings are formed from simple, but bold, half-round projections and recessions that are formed from a set of

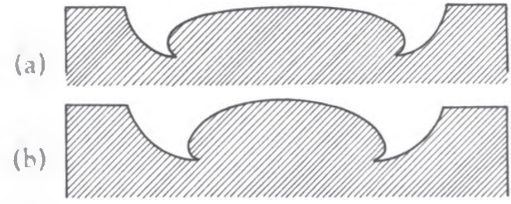


5-9. East window, lower court. Light from the exterior window, visible through the fanlight, was a source of illumination for the lower court.

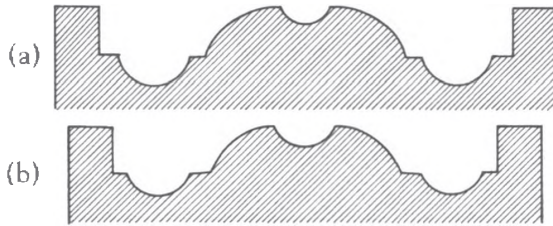
inner moldings



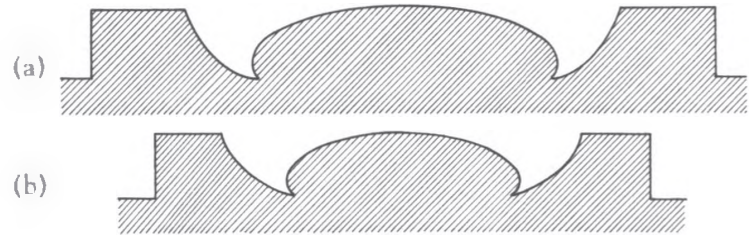
inner moldings



outer moldings

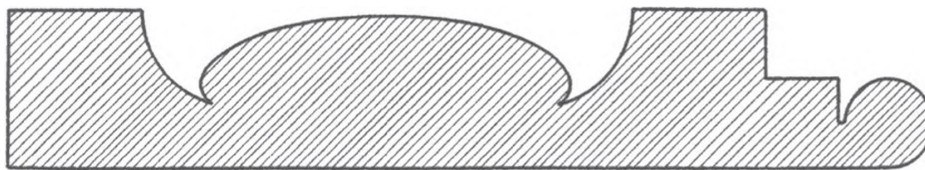


outer moldings



5-10. Cross-section profiles, shown at 25 percent, west windows, upper court (a) and lower court (b).

5-11. Cross-section profiles, shown at 25 percent, east windows, upper court (a) and lower court (b).



5-12. Molding profile. Plate 47, from Benjamin, *Practical House Carpenter*, 1830. Compare to fig. 5-11.

two molding planes that cut simple circular grooves into the wood (fig. 5-10), while the east-window moldings are wide, flattened, elliptical shapes whose curvature is far more complex (fig. 5-11). These latter moldings are taken directly from another of Asher Benjamin's books, *The Practical House Carpenter*, published in 1830 (fig. 5-12). Instead of classical ornaments (guilloche, egg-and-dart, Vitruvian scroll, etc.), the east window has simple, diamond-shaped insets of reeds flanked by fillet moldings set into the flattened curve of the elliptical molding. The east window's keystone is a perforated box, diametrically opposed to the plastically carved, beaded keystone to the west (fig. 5-13). This east window, which differs stylistically from the rest of the lower room and which shares a similar architrave molding as the window in the upper room, is the work of Truman Angell, who later worked on the Nauvoo and Salt Lake Temples. Though the upper and lower courts follow a similar layout, many ornamental details in the upper court are abstractions or simplifications of more-ornate elements found in the lower court.

The abrupt change in style in the lower-court interior occurred because of Bump's "open rebellion" against Joseph Smith in August 1835.⁸ It

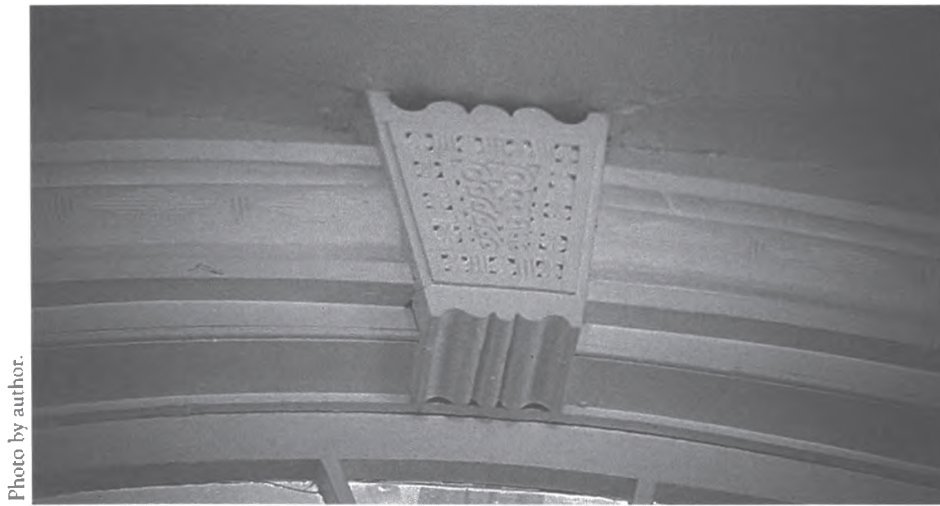


Photo by author.

5-13. Keystone with perforated-box ornament, east window, lower court. Compare to the west window keystone, fig. 5-3.

must have been yet another serious setback for Joseph Smith and the building committee to have one of their chief carpenters leave the group, especially since Bump's absence coincided with the period of greatest building activity on the temple. Since skilled workers were few in the Mormon community, the fall 1835 arrival of Angell, who had been a carpenter's apprentice and joiner in Providence, Rhode Island, was likely viewed as providential.

In his journal, Angell states that he finished "the second, or middle Hall of the Temple; including the stands &c."⁹ One of the distinguishing characteristics of Angell's work in the upper court was his reliance on *The Practical House Carpenter*. Since the book was available locally, several craftsmen may have owned copies. Another factor encouraging the use of *The Practical House Carpenter* was the commercial availability of its moldings. "Benjamin's Mouldings of 1833" were advertised for sale in nearby Portage County in 1835,¹⁰ and with the Ohio Canal operating nearby, such products would have been available in neighboring Geauga County (now Lake County) as well.

Rush to Complete the Temple

Other defining characteristics of Angell's work on the temple were determined by the rush to complete the temple. During the fall and winter of 1835–36, the Kirtland community rallied together to complete the temple as soon as possible. Temple construction became a work project for those converts arriving in Kirtland without financial resources, and as W. W. Phelps recorded, the number of laborers increased markedly: "Very great exertions

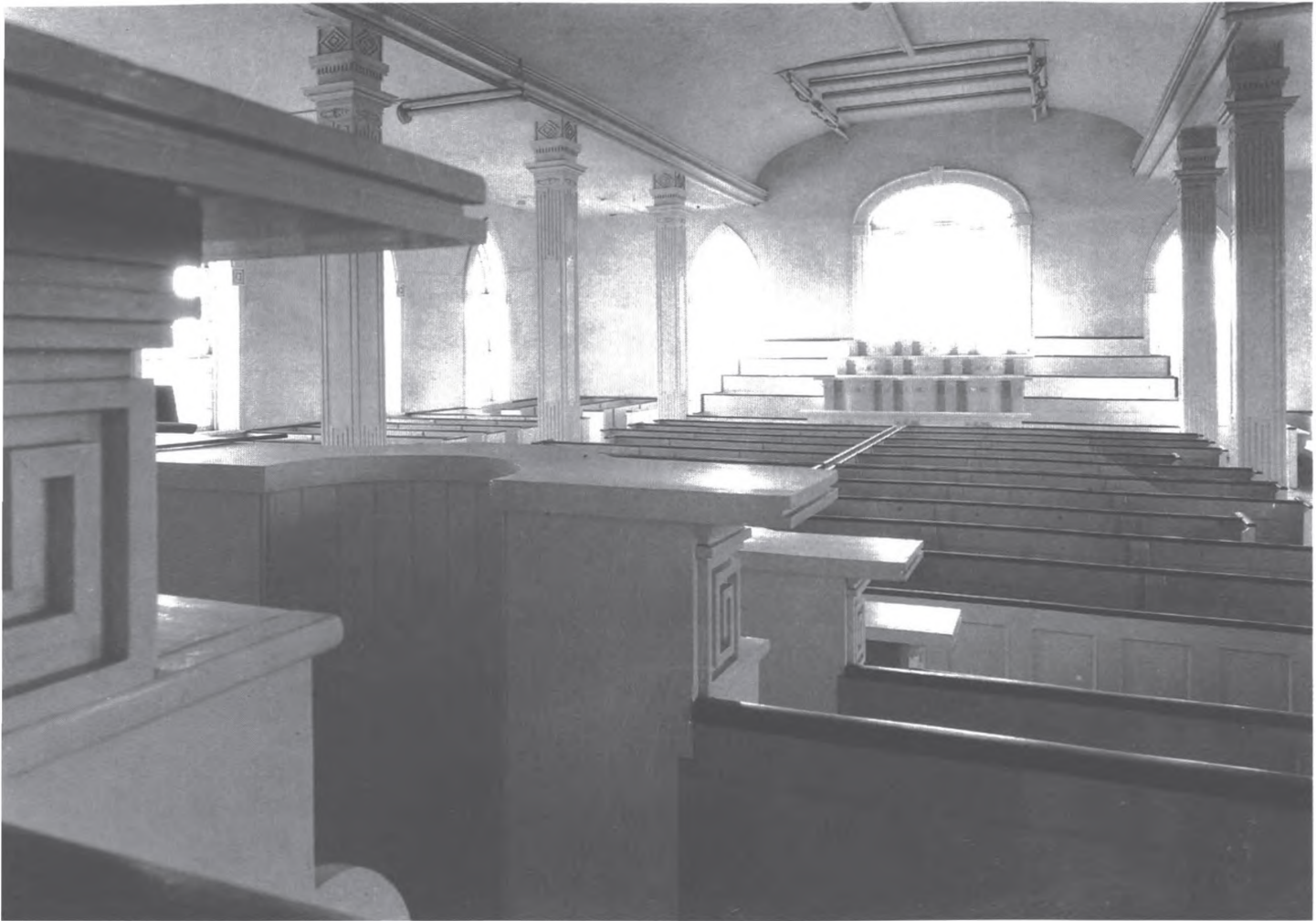
have been made to finish the House of the Lord this winter. I suppose for the last fortnight, that nearly fifty men, as carpenters and joiners, masons, mortar makers, etc., have been laboring on the house.”¹¹ As more men were put to work on the temple, more unskilled workers were necessarily included in their ranks. Caroline Crosby candidly wrote in her autobiography, “My husband worked 3 months on the temple before it was dedicated, which was nearly the first he had ever done at the business.”¹²

The men working on the temple had personal reasons for desiring its speedy completion. A number of them had left their families elsewhere, likely to avoid Kirtland’s cost of living, which was extremely high due to land speculation following the completion of the Ohio Canal. Others were in Kirtland only temporarily, called there by Joseph Smith. For example, W. W. Phelps wrote to his wife, Sally, whom he had left behind in Missouri, “Don’t reckon too much on my coming home in the spring. You may not see me until a little later. Keep up your faith and pray for the endowment. As soon as that takes place, the Elders will anxiously speed toward their families.”¹³

Thus the great push to finish the structure was motivated not only by impatience, but also by the desire to receive the “endowment,” or blessing, the Lord had promised upon completion of the structure. This promise was first mentioned in 1831, when the Saints were commanded through Joseph Smith to “go to the Ohio . . . and there you shall be endowed with power from on high” (D&C 38:32).¹⁴ Three years later, while Joseph Smith was undoubtedly preoccupied with Zion’s Camp, he received the instruction that “the first elders of my church should receive their endowment from on high in my house, which I have commanded to be built unto my name in the land of Kirtland” (D&C 105:33). The Saints were naturally anxious to receive such a bestowal of God’s presence and power.

Hastening the completion of the temple involved simplifying in the upper court (fig. 5-14) many of the elements found in the lower court. Workers formed most of the upper floor’s ornament by nailing on strips of wood instead of carving into the base material as was done in the lower court. A good example of this ornamentation technique is found in the piers supporting the ceiling in the upper court. These are not fluted as in the lower story but are decorated with a fret variation of strips of wood nailed to the plank, as shown in Benjamin’s *Practical House Carpenter* (figs. 5-15, 5-16). Likewise, the pulpits on the upper story do not have fluted pilasters but rather have applied reeds. The reeding technique was widely used in New England in the first decade of the nineteenth century and was used in the Western Reserve area as well.¹⁵ Nailing strips of wood to the planks is far easier than carving the long, deep flutes used on the lower story and resulted in significant savings of time.

Of course, it could be that Bump owned the molding planes used to produce the flutes in the lower court, and interior ornament in the upper court may have been changed to avoid purchasing additional tools in the



Courtesy Library of Congress.

5-14. Pulpit-to-pulpit view, upper court, facing west. Photographed by Carl F. Waite, April 1934.

wake of Bump's departure. However, the reliance on a different pattern book and aesthetic suggests that the different design traditions of the respective craftsmen in charge of the lower and upper courts and the rush to complete the temple were the primary reasons for the change in architectural ornament.

The use of the applied reeding in the upper room also indicates that many workers were not skilled joiners. While the fluted ornamentation in the lower court and the reeds used on the upper court produce similar visual effects of light and shadow, reeding can be done by a worker with little skill. This shift in technique allowed skilled craftsmen like Angell to direct many other workers, accelerating progress on temple construction.

The pulpits built by Angell in the upper court follow the general arrangement of Bump's pulpits in the lower court but are simplified to accommodate unskilled workers and a hurried schedule. Their ornamentation is loosely derived from Benjamin's design for a pulpit in *The Practical House Carpenter* (fig. 5-17). Spiral frets top each of the vertical supports, and

5-15. Illustration of fret moldings. Plate 28, from Benjamin, *Practical House Carpenter*, 1830. Compare to fig. 5-16.

although reeded pilasters are substituted for the molding profiles in Benjamin's design, his molding profiles are used in the window architraves immediately behind the pulpit. The two upper ranges of pulpits are also simplified because the rise from stand to stand is not as great and there is very little of the pulpit body that extends above the back of the bench below (fig. 5-18). By changing the height of the pulpits and rise of the stands,

Angell eliminated a significant amount of joinery. Additional savings were realized by eliminating the doors leading into the pulpits. This practical approach to design by Angell, however, does not mean that he was incapable of more intricate work. His east window above the pulpits, for example, has a single arch with a carved running-vine motif that is gracefully handled (fig. 5-19).

The most common decorative motif used throughout the temple is the Greek fret. Frets are easily formed from pieces of sawed lumber and do not require a high level of skill to produce. Greek frets are published most extensively in eighteenth-century English pattern books by authors such as Gibbs, Langley, and Paine. Exact copies of many of these frets are found in the temple, but so many different pattern books illustrate them that identifying a single source is not possible.¹⁶ On the other hand, some of the frets in the temple seem to be unique compositions created by the builders, who at times added additional loops to the frets (fig. 5-20) and at other times expanded square forms to a rectangular format by inserting an additional horizontal run to the frets (fig. 5-21).

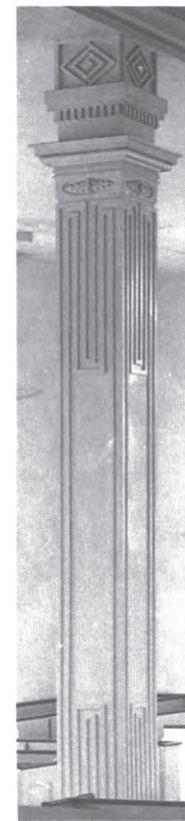
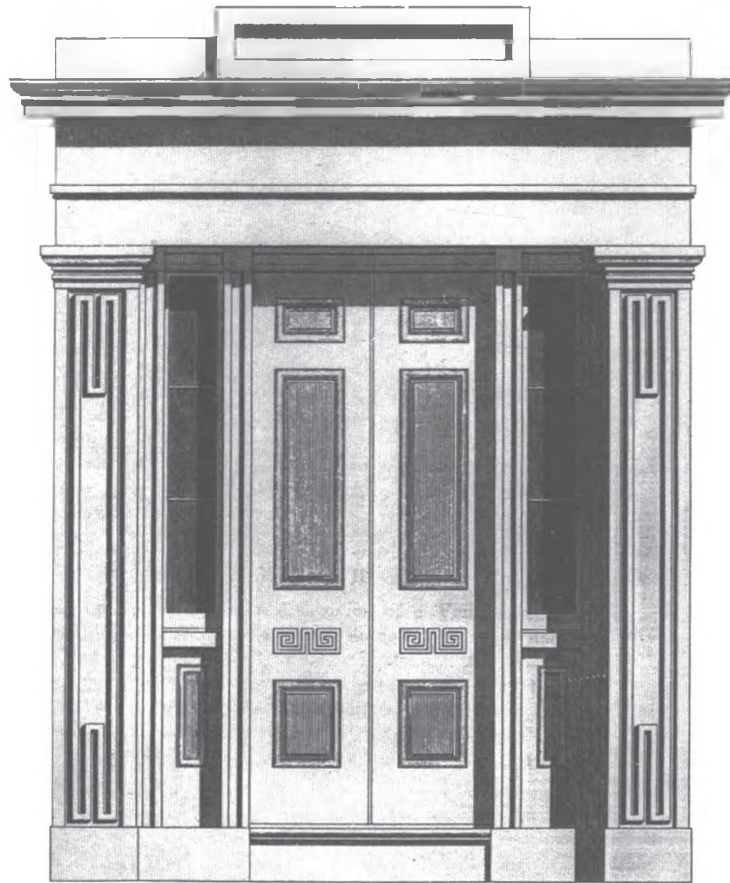
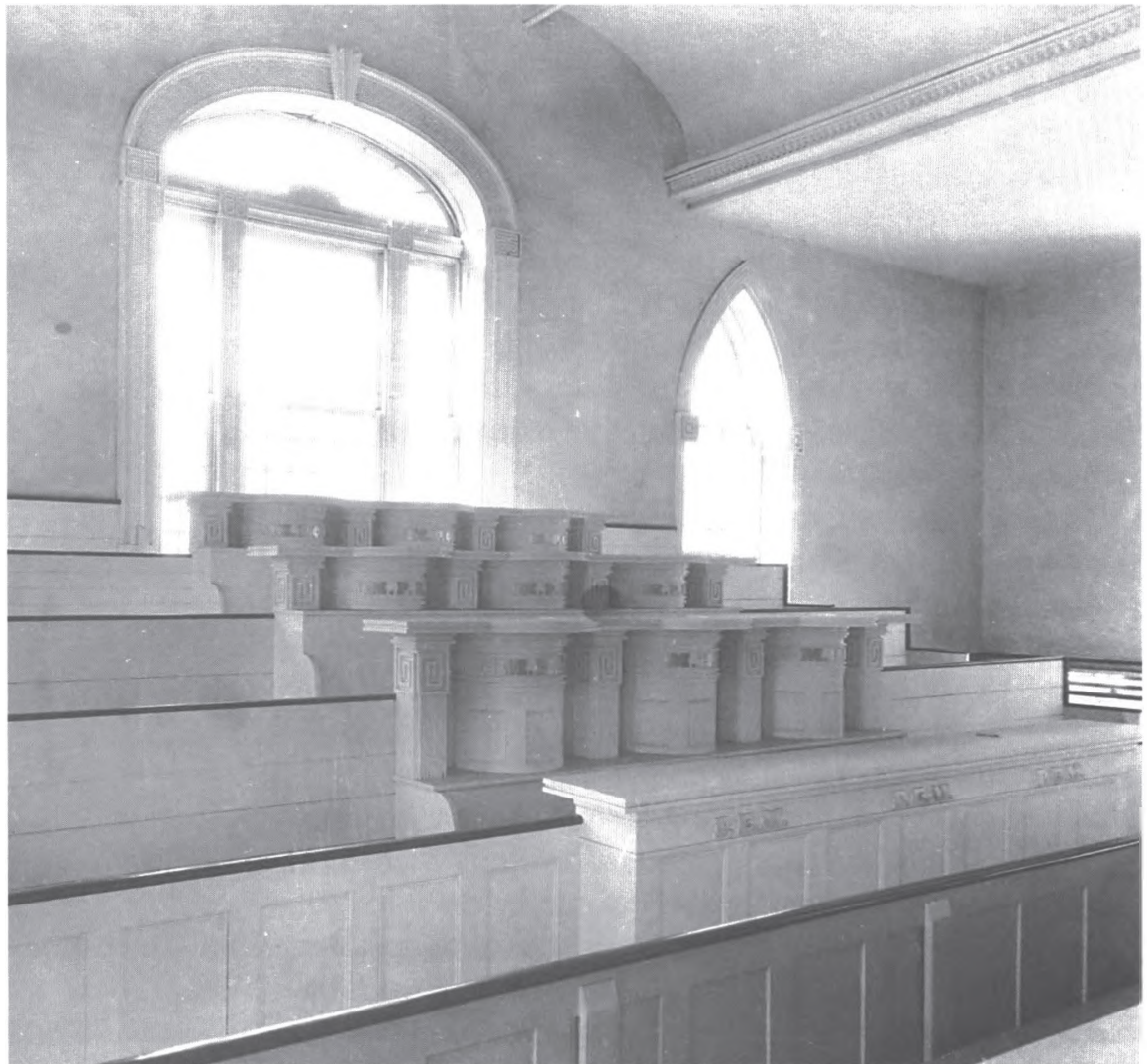
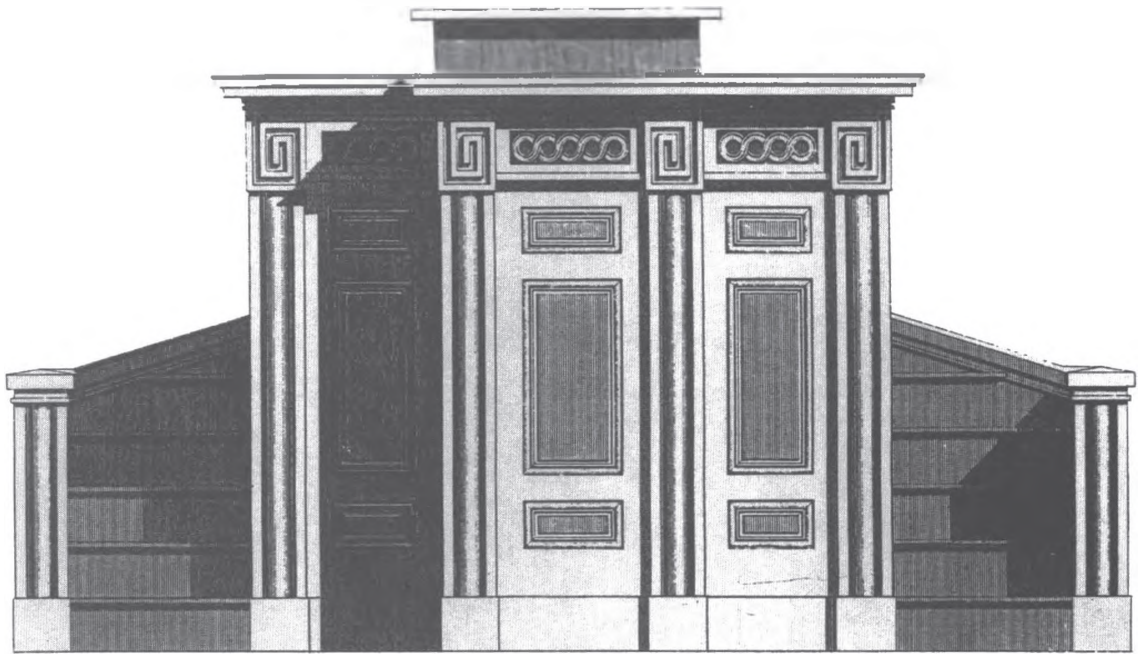


Photo by author.

5-16. Detail of pier, upper court, with fret ornamentation similar to that illustrated in *Practical House Carpenter*. Nailing strips of wood to the plank instead of carving the design saved considerable time and effort.

5-17. Design for a pulpit, plate 63, from Benjamin, *Practical House Carpenter*, 1830. The ornament for the pulpits in the upper court was adapted from this design. Compare fig. 5-18.



5-18. Detail of pulpits in the upper court, photographed April 1934 by Carl F. Waite. Simplified versions of the pulpits in the lower court, these pulpits have no entry doors and a reduced rise from stand to stand.



5-19. An arch with an intricate, carved, running-vine motif. East window, upper court. Designed by Truman Angell.

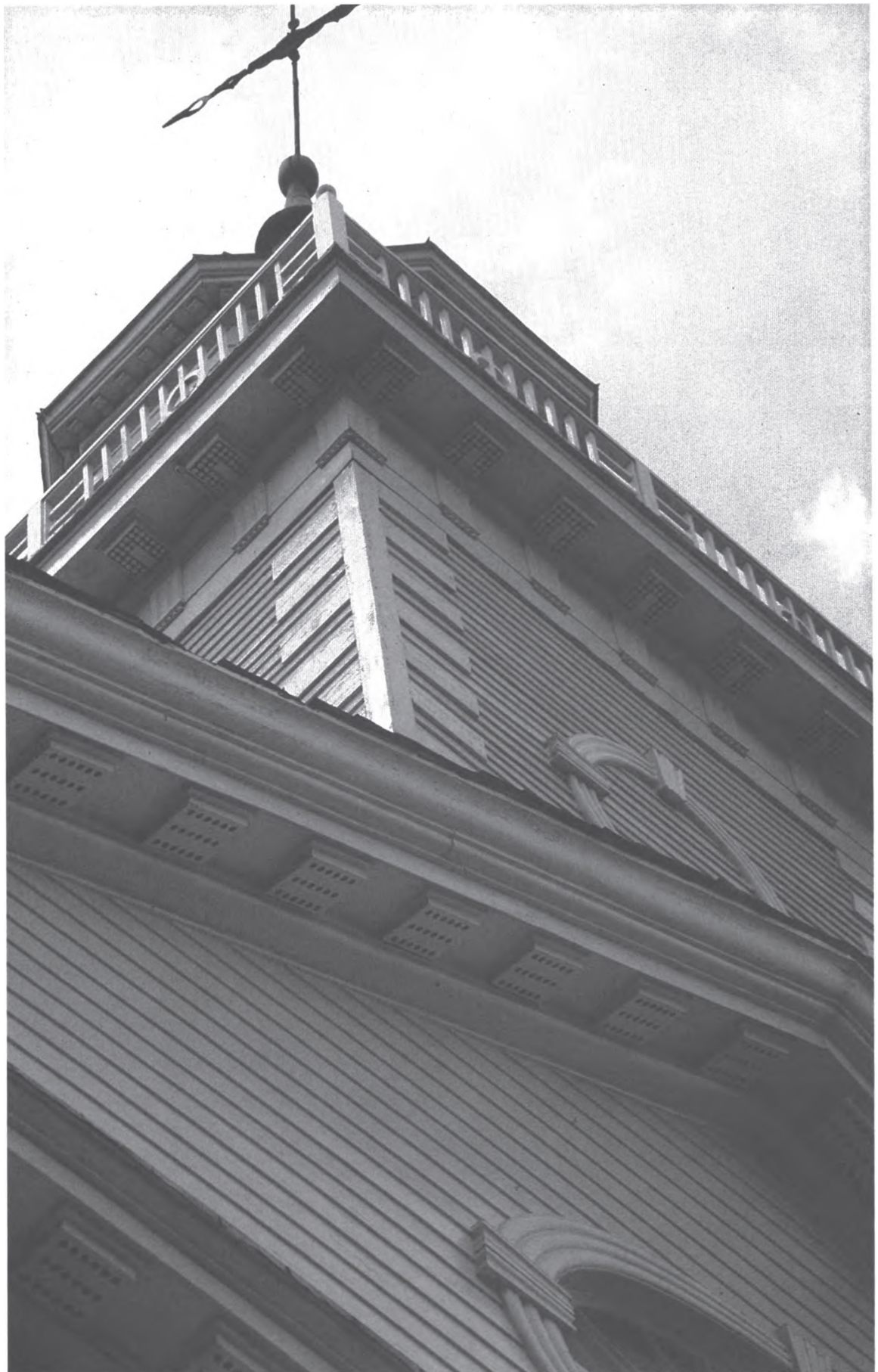


5-20. Greek fret composed of two spirals topped by an additional loop. Located at the springing of the arch over the west window, upper court. Compare the moldings to fig. 5-10.



5-21. Two Greek frets on the east window, upper court. Note how the more common fret on the left has been modified on the right by extending it to a rectangular format, creating a new diagonal axis through the design. Compare the moldings to fig. 5-11.

5-22. East gable end and tower of the Kirtland Temple showing simplified mutule beds on the raking cornice of the gable and properly formed mutule beds on the cornice of the tower. Photographed early 1993.



Exterior Ornament

As with interior details, the exterior ornament on the gable ends and tower shows the influence of different artisans who worked to complete the



5-23. Rosette motif on doorway in Bloomfield, Ohio. From Frary, *Early American Doorways*, 1937.

job as efficiently as possible. Although some of the wooden ornament on the cornice and tower is probably original, all the wooden siding on the gable ends has now been replaced. In the gable, the mutule beds (the square blocks attached to the underside of the projecting cornice) show a shortcut technique of drilling holes into a block of wood (fig. 5-22) instead of laboriously fitting pegs as was done in Greek architecture. The artisan who built the gable was familiar with common building tradition and did not rely on pattern books. He knew that since these mutule beds were about fifty feet above ground, a few hours' work with a saw and auger would look nearly the same as several days' work turning the pegs on a lathe, then fastening them into their bases, then building the enclosing box around them. The "homespun" training of this builder is further evidenced by the small windows in the west pediment, which have a small rosette in each corner, a motif found locally in the Western Reserve (figs. 5-23 and 5-24).¹⁷ The identity of the craftsman who worked on the gables is not immediately clear. Millett may have been directly involved, although his direct superintendency seems to have ended with the completion of

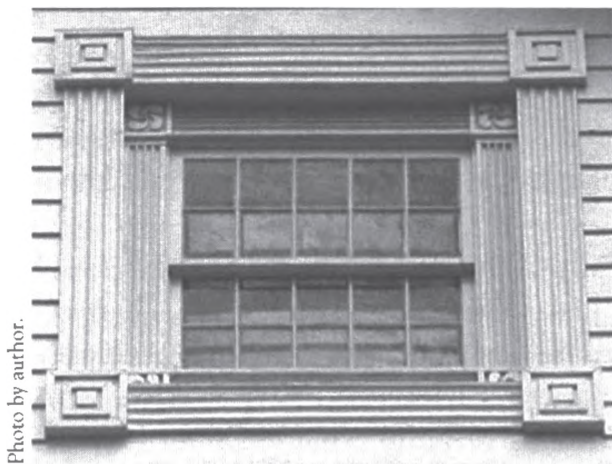


Photo by author.

5-24. Rosette motif on window in west gable, Kirtland Temple. Compare to fig. 5-23.



5-25. Tower and belfry, photographed from the west. Photographed early 1993.

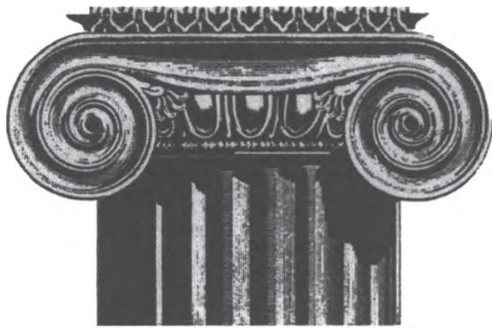
Photo by author.

the masonry walls. Another possibility is John Corrill, who directed the work in late 1835,¹⁸ although his written history suggests that his primary involvement was supervisory and not design related.¹⁹

In contrast to the simplified decorative elements found on the gables, the tower and belfry have properly formed classical elements taken from pattern books (fig. 5-25). The overall design of the square base and octagonal belfry stems from the New England tradition of forming church towers from superimposed classical temple forms.²⁰ This tower is similar to scores of other church towers, one notable example being Charles Bullfinch's Congregational Church

in Pittsfield, Massachusetts, which has an open, circular, classical tower on a square base.²¹ Instead of a crude slab of wood drilled with a grid of holes as found in the gable ends, the mutule beds on the tower have individual pegs set into a box, exactly as illustrated in pattern books. In addition the entablature below the cornice of the tower has the properly formed classic triglyphs (three slots carved into a wooden block) and metopes (the flat spaces between them) derived from Greek Doric temples as found in the pattern books. The Ionic pilasters on the upper stage are a crude adaptation of the Roman Ionic order found in many pattern books, including *The Practical House Carpenter* (figs. 5-26 and 5-27). Typical of American practice, the spiral volutes are etched in a flat plank of wood instead of carved from a solid block.

One of the more interesting details of the tower is the awkward use of a quarter-round egg-and-dart molding just below the spiral volutes. Quarter-round moldings, which in cross section are one quadrant of a circle, are normally used at overhangs to make the transition between vertical and horizontal surfaces. In locations without an overhang, such as under the spiral volutes, a half-round molding, with the circular profile facing outward and the flat surface on the back, is normally used. This unusual use of quarter-round moldings implies that the builders used leftover pieces of precut



5-26. Illustration of Roman Ionic capital, plate 9, from Benjamin, *Practical House Carpenter*, 1830.

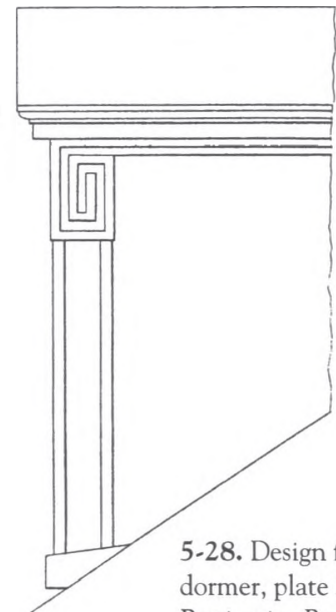
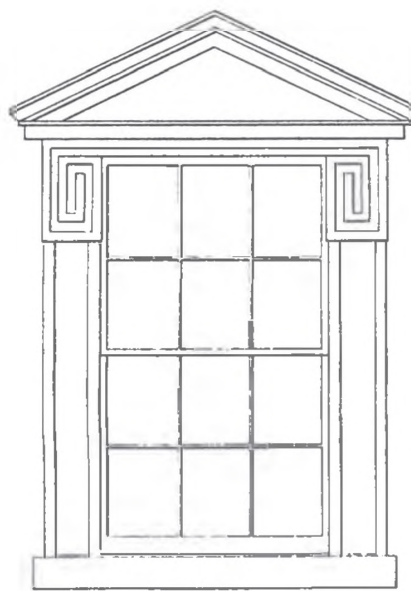


Photo by author.

5-27. Belfry capital adapted from the Roman Ionic order. Compare to fig. 5-26.

moldings in this lofty location where no one would notice the difference. As precut moldings were available for sale in the vicinity, these and other intricate moldings were presumably purchased.

The design of the dormers shares with the tower a dependence upon pattern books. However, instead of incorporating just a few details from the manuals, the entire dormer design is copied directly from Benjamin's *Practical House Carpenter* (figs. 5-28 and 5-29). Although Truman Angell depended heavily on Benjamin's pattern books for his design work, he was not necessarily responsible for designing the dormers. He would have had plenty of work to do finishing up the pulpits and, being a young man, was never part of the administrative leadership in the construction. Since the pattern books were widely available and since Angell was not the only one capable of following pattern book details, responsibility for designing the dormers could have fallen to any of a number of workers.



5-28. Design for a dormer, plate 32, from Benjamin, *Practical House Carpenter*, 1830.

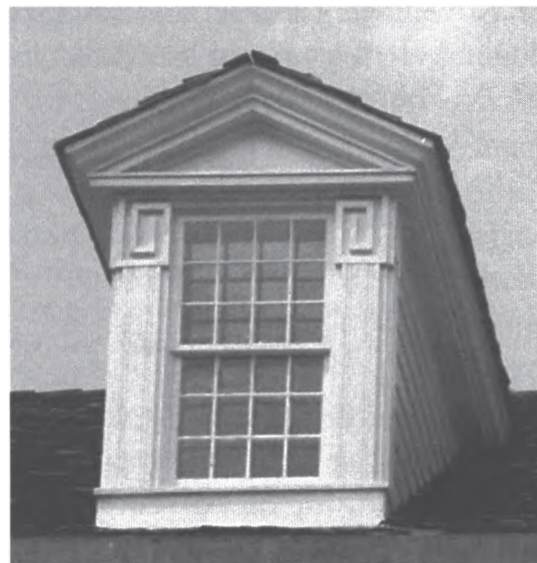


Photo by author.

5-29. Kirtland Temple dormer. The design was copied directly from *Practical House Carpenter*. Compare to fig. 5-28.

Final Finishing Work

A milestone in the construction of the temple was the installation of the windows in November 1835 by Brigham and Joseph Young. Brigham Young was a carpenter, painter, and glazier before coming to Ohio, and he did some carpentry in Kirtland as well.²² The two brothers built the frames and installed and glazed the original windows, which are currently stored in the basement of the temple (fig. 5-30).²³ These windows show typical construction techniques of the 1830s, with the mullions and sashes joined by small mortise and tenon connections. The Young brothers were highly skilled craftsmen: the curved mullions and frames of the Gothic windows and the elliptical shapes in the windows on the facades must have been difficult to produce with simple hand planes.

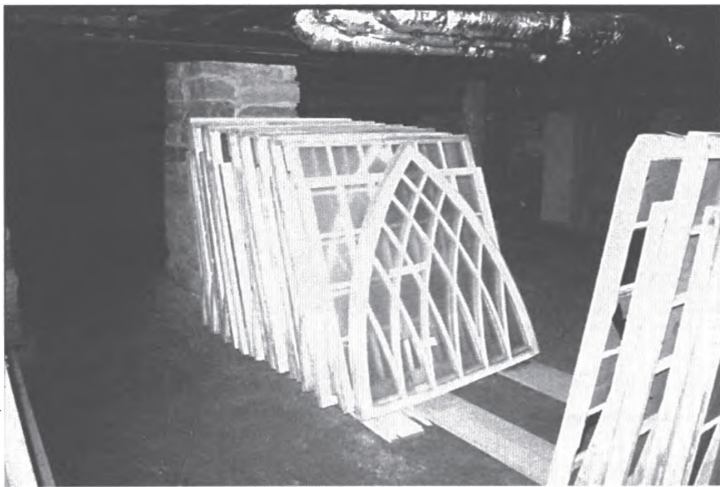


Photo by author.

5-30. The original windows, which are currently in storage. The windows were made by Brigham and Joseph Young.

Once the windows were in place, the building fabric was weathertight, and final finishing work could begin in earnest. Jacob Bump was given the contract to plaster the interior for fifteen hundred dollars. Curiously, Bump's continuing disaffection with Joseph Smith did not permanently end his work on the building.²⁴ He was given the contract probably because no one else possessed the skill he did. Bump began plastering the interior on November 9, 1835, and worked steadily despite inclement weather.²⁵ Apparently, he built fires in the earthen crawl space below the lower-court floor to hasten the drying of the plaster, which would otherwise have taken weeks in the cold temperatures

of November. Despite this advantage, such fires presented danger and no doubt were a source of much dirty soot. A solution was found, described by W. W. Phelps:

The committee has made a contract with a man to warm the house until the 1st of April. Four stoves are placed in the cellar and they heat twelve cylinders, four on the court for the sacrament, four in the court for the school for of the Apostles and four in the attic school rooms. If this plan works well, it will save wood and save trouble as to fires. Again it will be of great service to warm the house for the men ~~that~~ who work on it this winter.²⁶

Unfortunately, warming fires could not help Artemus Millett, Lorenzo Young, and their crew of young men who stuccoed the exterior of the temple beginning on November 2, 1835, and finishing on January 8, 1836.²⁷ Despite the difficulty of working outside in winter, they produced a durable

finish. Workers mixed broken glassware into the finish coat of the exterior to make it glisten in the sun. Millett stated that the mixture for the stucco covering was inspired.²⁸ Whether he was referring to the inclusion of glassware and crockery or of weather-resistant natural cements that had recently been discovered and used in building the nearby Ohio Canal is not clear. In any event, the mixture he used was new to him and lasted (with repairs) until 1955.

Later tradition states that women donated their best glassware and china to be broken up and mixed in the stucco. This belief conflicts with the recollection of the son of Artemus Millett that “Artemus sent men and boys to the different towns and places to gather old crockery and glass to put in the cement.”²⁹ On the other hand, given the importance the building had as a symbol of the Mormon faith and the degree to which the Mormon community sacrificed to build the temple, it would not be out of character for families to select a special piece of glassware or china for inclusion. However many families may have made such contributions, the lion’s share of the glassware in the stucco came from discard piles and not parlor shelves.

After Millett and his crew finished applying the “hard finish” to the outside of the temple, Joseph Young painted blue shadow lines to imitate cut-stone masonry.³⁰ The Saints wished to build a structure that presented a neat and tidy appearance. This aesthetic was also evident on the original roof. Instead of the current split shakes with their rough, irregular texture, the temple roof was originally covered with painted wooden shingles. These were either sawed pine shingles, which were commercially available in the area, or shingles produced locally using a machine patented by one of the early Saints.³¹ The paint used to preserve the shingles was probably red lead pigment dissolved in linseed oil, as it was readily available in large quantity and was not prone to fading in sunlight like some pigments.³² This painted roof, which would have had very little visible texture, would have blended nicely with the regular rhythm of the painted joint lines on the walls.

As the temple neared completion, finished portions were pressed into service. The main rooms were used for Sunday services and for special meetings (such as the one where workers on the temple were blessed) even before workers finished occupying the space.³³ Due to their lack of ornament and carved fittings, the attic offices were finished first. On December 31, 1835, Joseph Smith gave some final directions concerning these offices, designating the west office as his private study. The attic was also used, starting on January 4, 1836, by the School of the Prophets, a group of Church leaders who studied theology, languages, and other subjects (fig. 4-7).³⁴ The attic would not have been an ideal meeting place with all the hammering in the rooms below, but given the tight housing situation in Kirtland, any available meeting place must have been greatly appreciated.

The upper and lower courts were ready to be painted on February 22, 1836, with Brigham Young acting as superintendent.³⁵ During this time, Joseph Smith and various councils used the attic offices almost daily.³⁶ It must have been with no small excitement that the Saints began preparations for the dedication ceremony.

Notes

¹⁴Jacob Bump was the master mason, and the Temple will stand for unnumbered ages as a monument to his skill and genius." Crary, *Pioneer and Personal Reminiscences*, 32.

²See "Early History of Hanover," 1.

³Joseph Millet wrote, "Next morning [March 3, 1853] on foot to Kirtland. . . . to Jacob Bump (Brother Nelsons Milletts Father in law) they all seemed glad to See me, to hear about Nelson and Augusta and the Children. and to hear about Utah many questions to ask about Father. and other Old acquaintance &c. Ses he if your Father had staid here hem and me wold have owned all Kirtland now" Joseph Millet, "Millet on C B Island," 16–17.

⁴Goldsmith, "Rigdon the First Mormon Elder."

⁵Editions of Benjamin's *American Builder's Companion*, appeared in 1806, 1811, 1816, 1820, 1826, and 1827. Although there was considerable change between the editions, the plates illustrated in the text are common to all of them.

⁶Some of these English examples are Batty Langley's *City and Country Builder's and Workman's Treasury of Designs* (1750), which shows various Vitruvian scroll designs, and William Chambers's *Treatise on the Decorative Part of Civil Architecture* (1791), which shows two opposing dolphins on a mantelpiece, which the reversed scrolls resemble.

⁷Note that Greek usage of entablatures varied as well. For example, Ionic entablatures in the Ionian Islands generally did not have a frieze. However, that is largely irrelevant for American builders because they were following standards set out in their pattern books, not actual classical usage.

⁸Mary Young to Brigham Young, 2. See also William Huntington, *Reminiscences and Journal*, 3: "Jacob Bump . . . a disipated dishonest Decentor."

⁹Angell, *Autobiography*, 13.

¹⁰*Ohio Star* 6 (January 15, 1835): 4.

NEW FIRM—The Joiner's Tool Manufactory heretofore carried on by A. S. Collins will be hereafter carried on by A. S. & F. K. Collins. The subscribers will continue to carry on the above business with all its branches, at the old stand, a few rods south of the Court house. Being thankful for the support that has been extended to this establishment, the subscribers solicit a continuance, and an increase of public patronage. They are now offering to the public Benjamin's Mouldings of 1833, new and splendid articles. We invite our friends to call and examine them. . . . Ravenna, Oct. 16, 1834.

¹¹Quoted in Fields, "History of the Kirtland Temple," 22.

¹²Caroline Crosby, *Memoirs and Diary*. Note that this labor was for board; see Jonathan Crosby, "Biographical Sketch," 14: "The 12th Janu 1836 I went to work on the Temple for our board untill it was dedicated."

¹³Phelps to Phelps, December 18, 1835, 4.

¹⁴Note also that verse 38 alludes to the fact that men will be sent forth after they are "endowed with power from on high."

¹⁵New England examples of the reeding technique include the mantel from the Nathan Read House, Salem, Massachusetts (1790), and the Christopher Ryder House, Chathamport, Massachusetts (1809). Two Ohio examples are the Whedon-Farwell House, Hudson, Ohio (1826), and the John Johnson House, Hiram, Ohio (1828). Note that John Johnson worked on the temple as a laborer.

¹⁶A common fret used in the temple is the single fret doubling back on itself. This form is more commonly found in English books, while American pattern books tend to illustrate simple spiral frets. While this fact might suggest that those working on the temple had other pattern books available to them, these frets are so simple and commonplace that it more probably reflects the fact that the craftsmen had a great deal of collective experience among them.

¹⁷A house near North Bristol, Ohio, has this same spiral rosette. See Frary, *Early American Doorways*, 136.

¹⁸"Brother Corrill will drive the work as fast as he can, in order that he and his brethren may be enabled to visit their families." Phelps to Phelps, December 18, 1835, 4.

¹⁹"In the winter of 1834 and 5, all the principal elders in Upper Missouri went to Kirtland. Some of them spent the Summer there, while others travelled and preached in the eastern States, and some went to the south. I was appointed to take charge of the finishing of the Lord's house." Corrill, *Brief History of the Church*, 22.

²⁰This tradition is not unique to New England; it was largely borrowed from British practice dating to the rebuilding of London following the 1666 fire, when Christopher Wren built over fifty church towers using various combinations of classical elements.

²¹Andrew, *Early Temples of the Mormons*, 41.

²²Arrington, *Brigham Young*, 13, 17. "My father employed Elder Brigham Young, who had just moved into Kirtland, to lay his floor." George Smith, "Memoirs," 8.

²³The original frames were stored in the basement of the temple, having been replaced between 1967 and 1972 with more energy-efficient copies to hold down energy costs. See Hankins, *Reminiscences*.

²⁴Jackman to Beloved Wife and family.

²⁵Jessee, *Papers of Joseph Smith*, 2:75.

²⁶Phelps to Phelps, December 18, 1835, 5.

²⁷*History of the Church*, 2:363.

²⁸"Not that glass and crockery had any adhesive property but it had its use. Artemus Millet claimed that the secret was given him by revelation. Many have tried to solve the problem but have failed." Joseph Millet, "Millet on C B Island," 93–94. Elmeda Harmon recounted, "The Kirtland temple was finished in the Winter time and Briant and Jerry with other boys cut wood to keep the fires to dry the plaster. I, with other little children, gathered bits of glass and broken dishes which were broken up quite fine and mixed with the mortar used in plastering the temple." Maybelle Anderson, *Appleton Milo Harmon*, 168–69.

²⁹Joseph Millet, "Millet on C B Island," 93–94.

³⁰Gee to Millet, 34.

³¹*Painesville Telegraph*, November 15, 1833, 4; February 20, 1835, 3. "In the year of 1829 I invented and patented the shingle cutter machine now used for making or cutting shingles throughout the United States and Canada." Joel Johnson, *Autobiography*, 1.

³²Perkins and Osburns Bill. See also *Painesville Telegraph*, October 25, 1833, 3.

³³Goldsmith, "Rigdon the First Mormon Elder." See also Watson, *Orson Pratt Journals*, 57, "On the 26th of April [1835]. . . I found a large congregation collected in the stone meeting house."

³⁴*History of the Church*, 2:347; Jessee, *Papers of Joseph Smith*, 2:128–29.

³⁵"The lower room of the Temple is now prepared for painting. Elder Brigham Young was obliged to leave the Hebrew class and superintend the painting of the lower room until finished." *History of the Church*, 2:399. See also Jackman to Beloved Wife and family, "The lower room is in the hands of the painters and I think in about three weeks it will be redy for meetings."

³⁶*History of the Church*, 2:352–409.