



Type: Book Chapter

Finishing the Walls and Roof, 1834-1835

Author(s): Elwin C. Robison

Source: *The First Mormon Temple: Design, Construction, and Historic Context of the Kirtland Temple*

Publisher: Provo, UT; Brigham Young University Press, 1997

Page(s): 45-58



BYU Studies is collaborating with Book of Mormon Central to preserve and extend access to BYU Studies and to scholarly research on The Book of Mormon. Archived by permission of the author and BYU Studies.

<http://byustudies.byu.edu/>

Chapter 4

Finishing the Walls and Roof, 1834–1835

In April 1834, Artemus Millett returned to Kirtland on what was probably one of that spring's first schooners to pass through the thawing waters of Lake Erie. During the winter months he spent in Canada, he probably had some time on his hands to sketch out plans for the structure of the Kirtland Temple. He probably also made some rough estimates of quantities of stone and lumber if estimates had not already been made during his brief stay in Kirtland a few months before.

Zion's Camp and the Summer of 1834

Upon his return to Kirtland, Millett would have found the town in commotion over the impending departure of Zion's Camp. Hostilities toward Mormons in Missouri had peaked in 1833. Not only were plans for the Independence Temple abandoned, but mob violence in October and November had forced the Saints to leave Jackson County. In order to protect the rights and lives of the Saints once they were reinstated in Jackson County, Joseph Smith began signing up volunteers and raising money in February 1834 for an armed relief group. He then spent most of the month of March traveling through upstate New York visiting small congregations.¹ Much of the group that made up Zion's Camp left Kirtland on May 1, 1834, and Joseph Smith left on May 6.

Millett must have been a little bewildered upon his arrival in Kirtland since preparations for Zion's Camp were claiming most of the residents' energies and since Joseph Smith and Sidney Rigdon were out of town for conferences much of the time. Adding to the confusion was the recently concluded trial of Philastus Hurlbut for threatening Joseph Smith's life. In fact, Joseph's diary records only one meeting where the temple was discussed during the month of April.² Of course, Millett himself may not have had a great deal of

time to discuss the building with Joseph Smith because Millett would have had to find lodging for his family and get them settled in.

Approximately 130 men—a significant portion of the population of Kirtland—left with Zion’s Camp. As the *History of the Church* records, “We left but few men in Kirtland, viz.: Elders Sidney Rigdon, Oliver Cowdery, a few working on the Temple, and the aged.”³ Heber C. Kimball later described the impact this departure had on temple construction:

Brother Cahoon and Br. Cutler can tell you how many hands worked upon that Temple at one time; I think there were not more than five or six. Father Cutler, and Elder Cahoon, can tell you that there was not left in Kirtland more than ten or fifteen men, when we left with the camp to go to Zion, to Jackson county.⁴

Millett did not record his emotions as he took over supervising the temple construction, but the sight of the small work crew laboring on the large structure in a town inhabited primarily by women and children must have evoked poignant feelings.

Millett must also have felt deep concern for the welfare of the families driven out of their homes in Missouri and for his own family. Ira Ames, who came to Kirtland in October 1833, recorded that the Saints there suffered their share of persecution: “Ever since my arrival in Kirtland I had stood guard at night in consequence of the Mob and persecutions we endured.”⁵ Opposition was less intense during the summer of 1834 because everyone expected the Mormon community to leave for Independence in the near future.⁶ Nevertheless, Joseph Smith’s life had been threatened, and Ames indicates the Saints still felt compelled to keep a guard posted at night.

But fortunately for Millett, Jacob Bump, who worked on the foundations and later did much of the woodwork in the temple, remained in Kirtland. Other workers were not as highly trained, but most men in the Western Reserve possessed at least rudimentary building skills. For example, Ira Ames, the only other worker of the summer of 1834 who left a journal, worked as a shoemaker but built a home for his family as well.⁷

Although at the time of Millett’s arrival the temple’s foundations and at least some of the girders were in place, the work crew made little progress during the summer. The small work crew was able to raise the walls only about four feet above the ground.⁸ But even this small step would have eliminated any possibility of design revision. Any work above the foundation would locate window and door openings with finality and determine the width of the walls. Millett himself was probably occupied with carving the stone quoins, the lintels, and the architraves that encased the windows and doors. The remainder of the crew probably mixed the mortar, roughly shaped and placed the stone, and prepared scaffolding. The modest accomplishments of the summer crew suggest that relatively small amounts of stone

had been stockpiled on the site during the previous winter. Given sufficient quantities of materials, a small crew could make significant progress laying stone, but if they first had to quarry and haul the stone, construction would be considerably hindered.

Perhaps this lack of materials and manpower is what prompted some women to participate in building activities that dress conventions alone would have made difficult. Aroet Hale, who lived in Kirtland as a young child, reported:

The Prophet required all the Church to Work on the Temple. all that was not on mishons did work all most Constant from the time it was Commenced till it was Completed Some Women & Children Labord and tended mason. One Sister I have forgot the name drove two Yoak of Cattle and haled Rock.⁹

The extent of the women's involvement in the physical construction is not known, but such work complements a more stereotypical pattern of female support for temple construction. Heber C. Kimball later related:

Women were engaged in spinning and knitting in order to clothe those who were laboring at the building, and the Lord only knows the scenes of poverty, tribulation, and distress which we passed through in order to accomplish this thing. My wife . . . had a hundred pounds of wool, which, with the assistance of a girl, she spun in order to furnish clothing for those engaged in the building of the Temple. . . . almost all the sisters in Kirtland labored in knitting, sewing, spinning, &c., for the purpose of forwarding the work of the Lord, while we went up to Missouri to endeavor to reinstate our brethren on their lands, from which they had been driven.¹⁰

These activities were probably only part of the support given by women. One strongly suspects that tending gardens, milking cows, and doing other farm chores also fell largely to them, not only during the absence of Zion's Camp, but also after its homecoming, when the men turned their attention to temple construction. As Heber C. Kimball reports, the women did "all kinds of work; they were just as busy as any of us, and I say that those women have borne the heat and burden of those early and trying days and God will bless them for evermore."¹¹

Another consequence of the departure of Zion's Camp was that the building site could not be closely supervised by the three to whom the plan had been revealed nor could changes be preapproved, although Sidney Rigdon was present in Kirtland during the summer of 1834. Workers did modify the basic pattern as set down for the Independence Temple. The existing doorways on the Kirtland Temple feature raised elliptical panels instead of the rectangular ones drawn by Williams for the Independence Temple (compare fig. 4-1 with fig. 2-7). Although the elliptical fanlight above the door was very common in American building practice, elliptical panels on doors are not found in northeast Ohio or in New England but are found in Canada. One such Canadian example is found on the rubblework, stucco-covered



4-1. Raised elliptical panels on entrance door, Kirtland Temple. Elliptical panels are a feature found in Canada (fig. 4-2) but not in Ohio or New England. Photo by author.



4-2. Detail of entrance door, L'Assomption, Quebec, from Frary, *Early American Doorways*, 1937. Note the raised elliptical panels.

church of L'Assomption, Quebec (fig. 4-2).¹² The use of a Canadian building motif in the Kirtland Temple can probably be attributed to Artemus Millett.

To increase the temple's aesthetic appeal, Millett made other alterations to the exterior design of the temple, changes that differ from the Independence Temple drawings. Apparently not feeling the need for additional lighting in the vestibule, he eliminated the sidelights, or narrow windows flanking the doorways. He followed traditional architectural convention and replaced the "Gothic tops" prescribed for the doors in the Independence Temple drawings with elliptical ones. This decision remedied the awkwardness of the pointed Gothic arches above the wide doors and even wider "Venetian" windows without radically altering the existing design.

Most of these decisions regarding the form of the doors, the width of the masonry openings for the doors, and the location of the windows were made during the summer when Joseph Smith and the main body of the Mormon work force were absent from Kirtland. The faithful service of the temple workers during his absence must have been especially gratifying to the Prophet. Ira Ames's journal statement succinctly sums up the situation: "And when Joseph returned from Missouri he praised us much for our diligence."¹³

Completion of the Walls and Roof

The return of Zion's Camp in the summer of 1834 made available the work force necessary to make substantial progress on the building. As he had done during the fall of 1833, Joseph Smith personally labored in the quarries, where he also acted as foreman:

When we arrived in Kirtland, Joseph said, "Come, brethren, let us go into the stone-quarry and work for the Lord." And the Prophet went himself, in his tow frock and tow breeches, and worked at quarrying stone like the rest of us.¹⁴

In his diary, Joseph Smith wrote that he was acting "as foreman in the Temple stone quarry, and when other duties would permit, labored with my own hands."¹⁵ This personal attention to construction indicates the priority placed on the temple's completion. About five hundred tons of stone had been required to build the foundation and start on the walls of the temple. To finish the walls, the Saints needed to haul about double that amount to the site. Consequently, working the quarries and hauling stone were high priorities during the fall months.

As the walls of the temple rose during the fall, large numbers of workers would have been necessary. Accounts of the construction make no mention of cranes or pulleys, and the poverty-stricken Saints probably had to get along without them. The use of cranes could be avoided by employing large numbers of workers for lifting and by using each floor as a staging area for the next higher level. For example, placement of the main girders supporting the upper court floor would have required many workers and ropes. The fifty-five-foot girders weigh just over one ton and would require about fifteen men lifting approximately 150 pounds each to maneuver the girders around the site (fig. 4-3). These girders had to be lifted twenty-two feet from floor to floor, thus the need for temporary staging for workers and levers. Manpower did not require "hard money" as did equipment, and the lumber used for staging could be reused in other areas.

Such endeavors would also require careful coordination in order to avoid injury. Additional safety could be provided by tying ropes to each end of the girder and passing them over the top of the masonry wall. Draft animals on the ground could hold the girder in place using the friction of the rope as it passed over the wall as a safety brake.

As the height of the walls increased, the scaffolding enclosing the building had to keep pace. Scaffolding was usually constructed of long vertical poles that were too thin to turn into usable planking. These poles were lashed together level by level as needed. Of all the construction site dangers, scaffolding presented the greatest to workers, as Millett himself well knew; he had previously experienced several accidents involving falling from a building or being struck by stones dropped by a co-worker from the scaffolding, accidents that were so serious "my life was despaired of."¹⁶ Millett's son Joseph

4-3. Masonry wall above the upper-court ceiling and below the attic-office floor, one of the few places in the temple where the roughly shaped sandstone blocks can be seen.



Photo by author.

recalled that “when Artemus Millett was working on the Kirtland Temple he fell from off the top of the Temple down in a pile of rocks and broke his sholder blade. but kept on working. I can remember it was bigger than the other[.] one Side was natural. a hump on the other.”¹⁷ In addition, another observer reported, “I think it was Father Fisher, who, by some accident, fell from the scaffold, and was disabled for performing manual labor.”¹⁸ Such mishaps were part of the hazards of nineteenth-century construction sites.

Contrasting Upper- and Lower-Court Girders

Construction apparently proceeded steadily, for by February 1835, the walls were “up to the square,” and the roof was being put on.¹⁹ Therefore, the walls must have reached the level of the upper court by about November 1834. Consequently, the girders supporting the upper court would have been placed at that time, and those supporting the attic office on the top of the masonry wall would have been placed in January or February. Although similar in size and hewn from the same species of wood, the upper and lower sets of girders show some unusual differences, suggesting that, consistent with the influx of new Church members and the practice of calling men on missions, personnel on the job site had shifted.

In contrast to the roughly finished girders supporting the lower-court floor (see chapter 3), the girders supporting the upper-court and attic-office levels are more skillfully worked and are oriented properly. These girders were more carefully selected for freedom from defects, an important factor that can make the timbers twice as strong as those with many knots and checks. The upper girders are more carefully adzed and have depths that average roughly between 13 1/2 and 14 inches as opposed to the 9-inch depths on the lower girders. Although the depths of the girders supporting the two courts differ by only a few inches, the strength of a rectangular beam is proportional to the cube of its depth, meaning that just a few inches (or fractions of inches) can result in significantly different strengths. Selected and hewn under Millett's supervision, the girders supporting the upper-court floor demonstrate his good intuitive feel for structure. The girders also demonstrate that his experience and resultant skill exceeded that of Reynolds Cahoon and Jacob Bump, the supervisors of the lower-floor girders.

Millett's first critical decision regarding these girders was to make them continuous. Like the girders supporting the lower-court floor, Millett's girders span fifty-five feet between the masonry walls and are supported by wooden columns at two intermediate locations. The locations of the supports result in spans of about fifteen, twenty-five, then fifteen feet. Although three separate girders would have been easier to find, prepare, transport, and hoist into place, discontinuous girders would never have developed sufficient strength to support the expected loads. Continuous girders resist bending not only at the center of the span, but also at the supports. This resistance spreads the bending stresses across a greater portion of the girder, thereby increasing the load it can safely carry. In addition, the upper girders are fitted at the interior supports with knee braces (fig. 4-4) that significantly



4-4. Detail of structure showing knee braces supporting the girders under the upper-court floor. The photograph was taken in the interstitial space between the ceiling of the lower court and the floor of the upper court. Note the framing for the elliptical ceiling on the left of the photograph. Modern items include stacks of upholstered pads for the wooden benches (lower right), piping for the sprinkler system, and an iron tie rod that was inserted to keep the west wall of the temple from leaning outward.

reduce the high stresses in the girders. These factors bring the girders very close to modern code requirements.

Although the main girders supporting the upper court and attic offices are of like material and are similarly tooled with adzes, the mortises cut into the girders for the joists vary. Likewise, the joist spacing of the attic-office floor differs from that of the upper-court floor, suggesting that different craftsmen under Millett's supervision worked on these different floor systems.

Mortises and Tenons

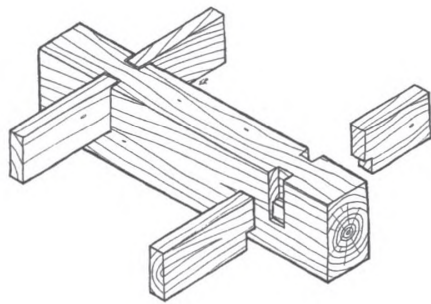
After main girders are placed, smaller timbers, or joists, are spaced between them. In the early nineteenth century, builders joined girders and joists using *mortises* (pockets cut into timbers to accept a tongue, or *tenon*). The joint is then secured by drilling a hole through the joint and tightly fastening the tenon into the mortise by driving a peg into the hole. Common practice was followed in the temple construction by using pegs with a slightly polygonal shape so the pegs would jam securely into the round hole. While such connections are effective in tying the structure together, they weaken the timbers considerably by reducing the cross section both of the mortised member, which has a substantial pocket carved out of it, and the tenoned member, which is reduced to a small tongue. Newer construction methods join timbers with spikes or nails, which do not cut through wood fibers, and place joists on top of supporting girders, thereby preserving the full strength of the members.

In the Kirtland Temple, the mortises in the girders are relatively small, minimizing their impact on the strength of the girder. However, the trade-off is that the corresponding tenons are also very small, and in fact many of the joist tenons in the Kirtland Temple are too small to meet modern safety standards.

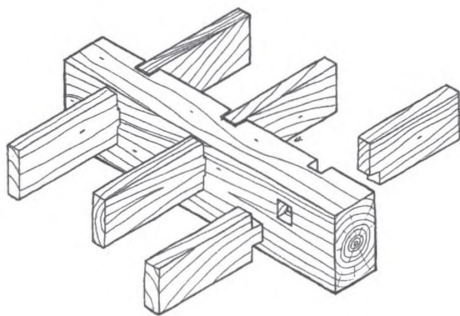
The considerable variation in mortise and tenon details throughout the temple (fig. 4-5) is a direct result of the work force changing during construction.

The girder-joist connection on the lower-court floor is a mortise cut into the upper half of the girder. This technique was common because the tops of girders are generally in compression. If a tightly fitting tenon is inserted into a mortise in compression, the girder is not weakened substantially, while the tenon is tightly bound in the mortise. However, the multiple-span, continuous girders of the temple have tension areas on the tops of girders at the intermediate supports, and mortises in these areas significantly weaken the girders. Bump and Cahoon, the craftsmen who likely placed these girders, did not make any adjustments to the mortise and tenon system near these intermediate supports, nor did the other craftsmen working on the upper girders. Such a level of structural understanding was well beyond the capabilities of common builders in the 1830s.

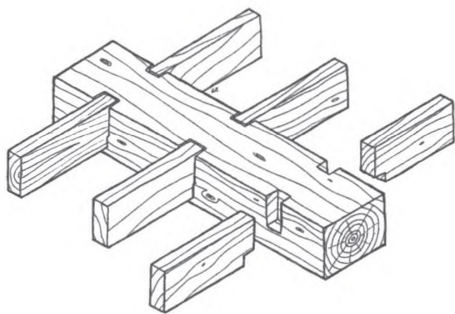
The depth of the mortises in the temple's lower girders is roughly equal to half the depth of the joist. This reduction in the cross section of the joist at the connection creates high stresses in the joist at the bottom of the tenon. Several joists in the temple have "failed" by splitting along the length of



Attic



Upper Court



Lower Court

4-5. Detail of mortise-and-tenon joints for the lower-court, upper-court, and attic floors. Note that the tenons of the joists on the east end are extremely small. Also note that the mortises of the attic-office floor are “shouldered”—they have a second, shallow mortise intended to support the joist across its full depth.

the joist from tenon base to tenon base. Such failures have appeared particularly in the vestibule area, where large crowds are most likely to congregate. Collapse has not occurred because the load has been distributed to adjacent joists by the thick floorboards, but joists weakened by splitting are a structural concern in the temple at the time of this writing. Fortunately, this problem can be remedied simply by inserting new joists next to the failed ones and connecting the new members to the girders by using metal joist hangers nailed into the girders.

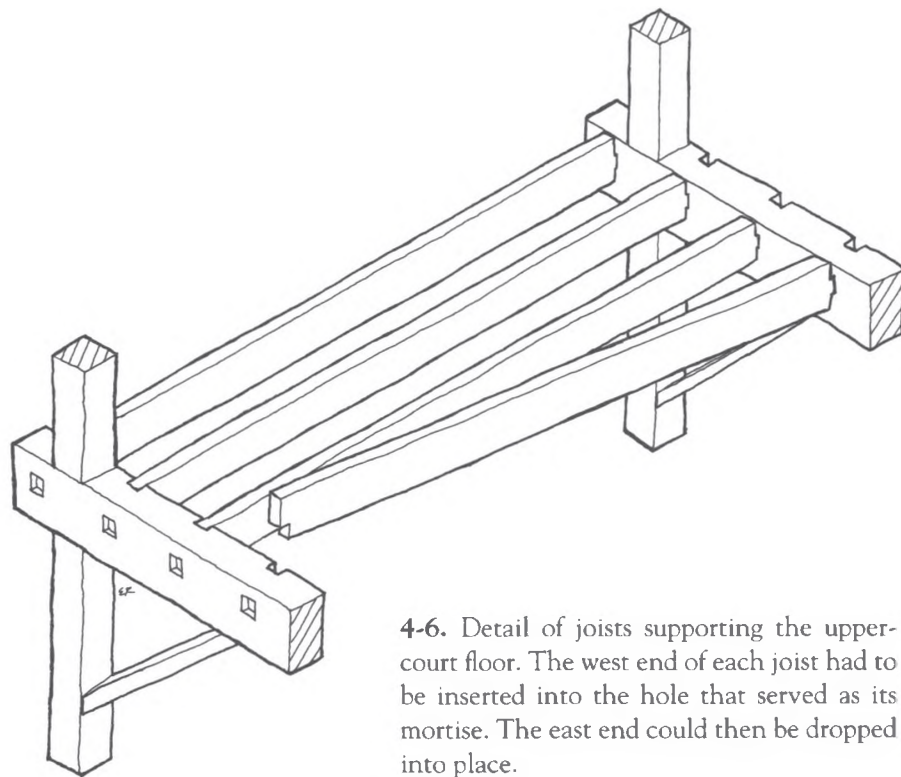
Although the main girders supporting the two upper levels are of like material and are similarly tooled with adzes, the mortises cut into the girders for the joists are different. The girders supporting the upper-court floor have mortises cut to accept joist tenons at eighteen-inch intervals like those of the lower-court floor. Most mortises are slots cut into the girder so that the tenons of the joist are dropped into the mortises from above. However, each upper-court girder is cut with a three-inch mortise on its east side that is not an open slot but rather a hole cut into the side of the girder. Thus the tenon can be inserted into the girder only from the side. On the opposite side of the girder is a more conventional 5½"-deep slotted mortise. With this design, the west end of the joist had to be inserted into the mortise and then the east end dropped into place (fig. 4-6).

Unfortunately, the three-inch tenon on the west side of the joist is woefully inadequate to transfer the weight borne by the joist to the girder. Failure has not occurred because the upper court has not received the intensive use the lower court has, and—at least since their installation—the pews have prevented tightly packed concentrations

of people such as occur in the vestibule area. However, this problem, too, is easily remedied by placing new joist hangers at the joist ends.

The girders supporting the attic-office floor are cut with simpler mortises 5½" deep that are also stronger as far as the joists are concerned. These mortises are cut to accept a shouldered tenon on the joist, meaning that a shallow recess is cut into the girder the full depth of the joist. This shoulder supports the joist and thereby originally aided in shear transfer. Timber shrinkage has pulled many of the joists out of the shallow pocket so that they are no longer effective. But the two-pocket system does demonstrate the greater technological sophistication of the craftsman directing this work.

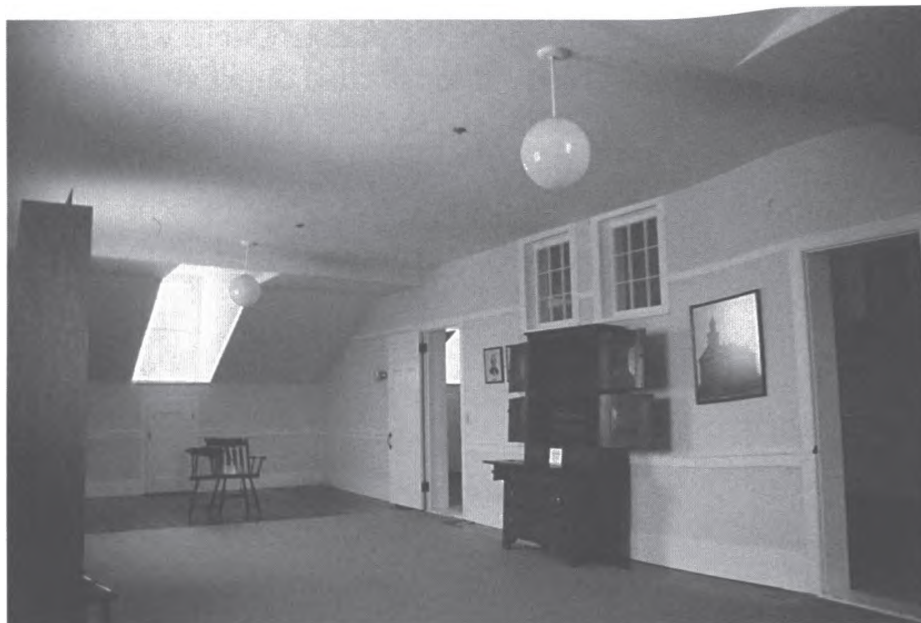
Unfortunately, technological sophistication does not necessarily accompany greater structural understanding; for example, the joists of the attic floor are spaced at every thirty-six inches instead of eighteen inches as on the lower two floors. This spacing effectively doubles the potential load on the joists, resulting in a floor half as strong and (from the viewpoint of modern codes) potentially unsafe. At the time of this writing, large groups have been excluded from the attic offices pending the insertion of additional joists to safely support the floor. Again, collapse has not occurred because large, tightly packed groups of people rarely congregate in the attic. The lively attic-office floor, which deflects and vibrates under foot, probably warned occupants to moderate the loads placed on it.



4-6. Detail of joists supporting the upper-court floor. The west end of each joist had to be inserted into the hole that served as its mortise. The east end could then be dropped into place.

The Attic

Begun in February 1835, the roof structure uses a variation of the king-post truss (fig. 3-10 and glossary) and is from the same wood species, probably black walnut, that is used in the timbers in the lower court. Coinciding with the bays of the supporting columns, the trusses are contained in the walls that divide the attic into five separate offices. Although not mentioned in the specifications for the Independence Temple, the attic offices take advantage of the considerable space under the roof and between the roof trusses (fig. 4-7). No corridor



4-7. Western office used by Joseph Smith, Kirtland Temple. The doors and windows on the interior wall are placed between the posts and diagonals of the roof truss.

joins the offices; rather, one has to walk through each of the offices in turn to access the westernmost office (fig. 4-8). This “shotgun” arrangement of spaces was not unusual in the nineteenth century, and it allowed for the maximum amount of floor space and light in each of the rooms. Joseph Smith and his counselors probably did not anticipate the large volume of space available under the roof since their previous experience was with smaller residential structures. The five large attic offices provided more than adequate space for the relatively small Church leadership, and plans for a separate structure for printing and other office functions were dropped (see D&C 94).

An unusual feature is the windows in the interior walls that divide the offices. The outer offices are lit by dormers. To help light the central offices when the doors between offices are closed, windows are fit between the diagonals of the roof trusses (as are the doors). Because of the manner the doorways and windows communicate between the rooms, the heavy structural members that support the roof are inconspicuous. Note that careful coordination was required to determine the location of the openings through the truss and of the run of stairs that terminates at the line of doorways (fig. 4-8). The mistakes that occurred during the early stages of construction, such as the awkward junction between the exterior masonry and the wooden structure, are no longer present. Artisans who had sufficient experience to visualize the three-dimensional location of stairs, doorways, and structure were now in control of the design.

Persecution

After the masonry walls were in place and the roof framing completed, Millett no longer had direct superintendency responsibilities at the job site. Accordingly, in May 1835 he asked for permission to return to Canada to try to collect on debts still owed him. After nearly drowning while disembarking



4-8. Doorways leading through the attic offices, photographed from the top of the vestibule staircase. The staircase is aligned to end where the line of doorways starts.

Photo by author.

from a boat in the Kingston, Ontario, harbor, Millett collected some debts and sold his property. He then “returned to Kirtland where I continued working on the Temple as much as I could, my leg being occasionally troublesome.”²⁰ Because of his faithful service, Millett was singled out in a special meeting where workers on the temple were given blessings.²¹

As the substantial masonry walls rose above the Chagrin River valley during 1834 and 1835, opposition to the Mormons grew in seemingly proportionate amounts. Perhaps enemies of the Church were encouraged by the mobs in Missouri, who successfully drove out the Mormons without any reprimand by the state or federal government.

Or maybe they became suspicious that with Jackson County no longer a possible gathering place the Church would continue gathering in Kirtland. Or perhaps the sight of the temple rising on the bluff symbolized a success that challenged local opposition. Referring to the effects such opposition had on the brethren working on the temple, Lucy Mack Smith later wrote:

They suffered much from fatigue and uneasiness for as soon as the work was commenced our enemies began to swear that we should not finish it but the brethren were faithful to their charge and they would take turns in watching the walls. . . . but oh how many of those affectionate brethren ~~that spent so many~~ spent days and nights watching ~~by th~~ for the enemy lest they should steal into the town unawares and murder the prophet and his counsellors and tear down their foundation of the house but they clung fast by the walls and gave no quiet sleep to their eyes nor peaceful slumber to their eyelid until they found a place for the Lord an habitation for the mighty God of Jacob.²²

Heber C. Kimball, a worker on the temple, reported in a similar vein, “Our enemies were raging and threatening destruction upon us, and we had to guard ourselves night after night, and for weeks were not permitted to take off our clothes, and were obliged to lay with our fire locks in our arms.”²³ That the temple became the focal point for the Ohio mob’s fears and frustrations is only natural given its physical size and dominance of the nineteenth-century agrarian landscape.

According to the reminiscences of those who lived through this period, external pressures strengthened the commitment and resolve of some of the Saints in Kirtland, while driving others away. The increased determination of the faithful in the group compensated for whatever losses in resources the Mormon community suffered from defections.

Notes

¹*History of the Church*, 2:40–45.

²*History of the Church*, 2:50.

³*History of the Church*, 2:64.

⁴Heber C. Kimball, “Speech Delivered,” 972.

⁵Ames, *Autobiography and Journal*.

⁶Doctrine and Covenants 51:16 states that Ohio was to be a gathering place “for a little season, until I, the Lord, shall provide for them otherwise, and command them to go hence.” The community at large seems to have been well informed of the intentions of the Saints in Kirtland, for the article “Mormonism” in *Painesville Telegraph*, March 13, 1832, states: “A few, however, who are in lucrative business have a special permit from the prophet to remain [in Kirtland] for four or five years.”

⁷Ames was certainly a willing laborer, but he must not have developed into a highly skilled craftsman since he worked through the summer and then eventually moved away from manual work into financial committees.

⁸Hales, *Windows*, 95–96.

⁹Hale, *Reminiscences*, 4.

¹⁰Kimball, “Extracts from H. C. Kimball’s Journal,” 867. Lucy Mack Smith also reported, “Mary Fielding Baily and Agnes coleby was then boarding with me they devoted their whole time to the making and mending clothes for the brethren who worked on the house. There was but one main spring to all our thoughts and that was the building the Lords house.” Lucy Mack Smith, “History of Lucy Smith,” 191.

¹¹Heber C. Kimball, in *Journal of Discourses*, 10:165, April 6, 1863.

¹²See Frary, *Early American Doorways*, 191.

¹³Ames, *Autobiography and Journal*.

¹⁴Kimball, in *Journal of Discourses*, 10:165.

¹⁵*History of the Church*, 2:161.

¹⁶Artemus Millett, *Reminiscences*.

¹⁷Joseph Millet, Record book, 33. Artemus Millett’s grandson, Joseph Millet Jr., recalled:

Artemus rezided in Spring Valley untill the Summer of 1872 engaged in Dairying. Assisted his wife Annie in milking cows. making butter & cheese. and raising chickens. and he done some mason work helping to build chimneys & etc. Tho not able to do any heavy lifting, as he had been badly crippled up in his younger days. had his back (& sevral rebbs) broken, one arm and one leg, While working on The Kirtland Temple. and was healed by faith. by the Prophet Joseph Smith & foot mashed, altho

he did do much hard work, Principly Masoning & plastering and some carpenter work and gardening and basket making. he learned me how to mix mortar and to lay rocks, & told me mutch about his work on the Kirtland and Nauvoo Temples & how he made the hard finnish he put on them. (Joseph Millett, "Millett on C B Island," 3)

¹⁸Daniel Tyler, "Temples," 283.

¹⁹Young to Harvey, November 16, 1880.

²⁰Artemus Millett, Reminiscences.

²¹*History of the Church*, 2:205. Note that the typescript copy of Millett's journal says that he returned to Canada in 1833, but that date must be in error, for he arrived in Kirtland only in October of 1834. The most logical date is 1835, since the masonry walls would have been completed in May and his presence would not be needed.

²²Lucy Mack Smith, "History of Lucy Smith," 190. See also the edited version of this account, *History of Joseph Smith*, 231.

²³Kimball, "Extracts from H. C. Kimball's Journal," 771. Although no record exists of individuals preventing building materials from reaching the temple site, George A. Smith recorded:

In the spring of 1835, a majority of the inhabitants of Kirtland combined together and warned all the Saints to leave town. This was done to prevent any of our people becoming a town charge in case of poverty. They then bought up all the grain that was for sale in the country around, and refused to sell a particle of it to our people. (George Smith, "Memoirs," 25)