

Construction of the Great Tabernacle

AFTER the work on the Tabernacle was started in April 1863, rapid progress was made for two or three months. The *Deseret News* of June 10, 1863, carried the following item: “The Temple Square . . . has for weeks past, presented a very busy scene. The stone cutters, masons, hod carriers, and other artisans [have been] at work on and around the foundations of the Temple and the new Tabernacle. . . . The foundations of the piers of the new Tabernacle have been mostly placed, and some of the columns are being raised.”¹

The author found no record indicating the amount of work done on the Tabernacle in 1863, but, from the evidence studied, he concluded that little more than reported in the item above was done. The fact that the cornerstone of the Tabernacle was not laid until 1864 is indicative that limited progress was made in 1863.



1. “A Busy Scene,” *Deseret News*, June 10, 1863.

The construction of the Tabernacle was again a prominent theme during the April conference of 1864. The minutes of the April 6 morning session record: “President [Daniel Hammer] Wells [the first speaker] addressed the Conference on the claims of the Public Works: urged the necessity of the Wards in the Territory furnishing teams to haul granite rock from the quarries during the present spring and summer, for the Temple; in order to meet the demands of workmen for labor during the fall, winter and following spring, and also called attention to the rock and timbers required for the erection of the New Tabernacle this coming fall.”²

President Wells’s remarks indicate that the Tabernacle had made very little progress at the time of his talk. However, enough rock had been provided for the Tabernacle by July to lay the cornerstone.

There is no original record available which would indicate the exact date that the cornerstone was laid. However, several later accounts place the laying of the cornerstone on July 26, 1864. For example, the *Deseret Evening News*, in an article published October 6, 1900, reports: “Work upon [the Tabernacle] was begun July 26, 1864. That is, the corner stone was laid on that day.”³ It was an important event, and marked the beginning of an era that was to give better buildings to the people of the city and territory. Notwithstanding the fact that the struggles of Pioneer days and conditions were still upon the people and that primitive methods were



2. Journal History, April 6, 1864.
3. Because journal accounts and other sources from this date do not mention it, it is questionable whether a cornerstone was actually laid on this day. It is evident that construction began earlier than July 26, 1864, because some piers were already finished by that time. The *Deseret News* article does not specify the source for their date. This conflict, along with the problem of designating a formal cornerstone in an oval building, has led LDS Church archivists to question the existence of a cornerstone ceremony.



One of the first steps in building the Tabernacle was raising the forty-four stone piers that support the roof, which were completed during 1864.

Courtesy of Church Archives

yet in vogue, rapid progress was made.”⁴ Orson F. Whitney, in his *History of Utah*, writes concerning the Tabernacle, “This unique edifice . . . had been in course of construction since July, 1864.”

The fact that the above items were written at a time when many of the persons who worked on the Tabernacle were still alive gives support to the authenticity of the date mentioned and further points out the lack of progress made on the Tabernacle during the first year of its construction.

The cornerstone, or first foundation stone, must have been the first stone in one of the piers that support the roof, for, as indicated in previous references, the foundation was finished and some of the piers were raised by June of 1863.

Even following the laying of the cornerstone, the work on the Tabernacle progressed slowly and was confined to the construction of the piers, or pillars, that support the roof. The rock for these piers was quarried in Red Butte Canyon, which is located just



4. “The Great Mormon Tabernacle: Past and Present,” *Deseret Evening News*, October 6, 1900, 1.



Grow remarks, “At each point where the timbers intersect, four holes were drilled and wooden pegs were driven through so that the pegs extended three inches on either side. The ends of the pegs were then split with wooden wedges, which were permanently driven into the pegs and which secured them solidly” (original thesis, 74).

Courtesy of Richard Crookston

above the site of Fort Douglas. They are made of red sandstone.⁵ The piers were completed sometime during 1864, although no definite date is available.

Apparently the slow progress of the Tabernacle caused some people to doubt the possibility of constructing such a building with the materials and machinery available. To allay such fears, Brigham Young observed in his talk to the people assembled for conference on April 9, 1865, “that there would be no difficulty about putting up the building if the lumber can be obtained.”⁶



5. Orson F. Whitney, *History of Utah* (Salt Lake City: Cannon and Sons, 1892), 2:179.
6. George Grow, unpublished letter to the author, reproduced in the appendix.

There is no evidence that the Tabernacle was worked on during the summer of 1865. The stone pillars stood bare until the fall of 1865, when Henry Grow and a small group of workmen started work on the roof. The actual work was commenced September 1, 1865.⁷ The wood for the roof was brought mostly from the Wasatch Mountains to the east and was sawed in the mills in Big Cottonwood Canyon.⁸ The delay in the start of the construction of the roof may have been occasioned by the delay in getting out the timbers and the time required for them to cure.

The roof was constructed with the use of lattice arches. These arches were designed after the Remington patent of arch construction for bridges. As Edward Tullidge records, Mr. Grow, who built the roof, had been a “carpenter and joiner” in Pennsylvania; and “after serving his [apprenticeship], he superintended all the bridges, culverts, etc., on the Norristown and Germantown Railroads, both in constructing and repairing the works.”⁹ When he came to Utah, Mr. Grow procured the right to use the Remington patent in this area and used it in constructing several bridges. One across the Weber River and one across the Jordan River were built in 1851. Another was built across the Provo River.¹⁰ The “bridge spanning the Jordan River was the prototype for the Tabernacle roof construction.”¹¹ These bridges proved to be very substantial, and Brigham



7. John V. Long, “Minutes of the Thirty-fifth Annual Conference,” quoted in *Journal History*, April 9, 1865.
8. Richard H. Lyman, “The Mormon Tabernacle and Temple” (Address before the American Society of Civil Engineers, Salt Lake City, December 1925).
9. Edward N. Tullidge, “Biographies,” *The History of Salt Lake City and Its Founders* (Salt Lake City: Star, 1886), 127.
10. “Out of the Desert a Tabernacle Arose,” *Salt Lake City Tribune*, November 14, 1915, 11.
11. “Out of the Desert a Tabernacle Arose,” *Salt Lake City Tribune*, November 14, 1915, 10.

Young asked Mr. Grow to incorporate the same principle into the roof of the Tabernacle.¹²

When President Young asked Mr. Grow how large a roof he could construct by applying of the lattice arch principle, he replied, “150 feet wide and as long as it is wanted.”¹³ This reply probably fixed the width of the Tabernacle at 150 feet. The arches across the center part of the building were built and put in place first, and the end portions of the roof were erected later.

During the October conference of 1865, the completion of the Tabernacle was the subject of several sermons: “President Heber C. Kimball . . . pointed to the new Tabernacle, and showed the necessity of its being speedily finished, that we might have a house large enough in which to meet and worship God. . . . President Brigham Young, pointing to the vast congregation before him, said that all present would see the necessity of completing the New Tabernacle, and hoped that in one year from now we would be able to meet in it, when all could be accommodated with seats.”¹⁴

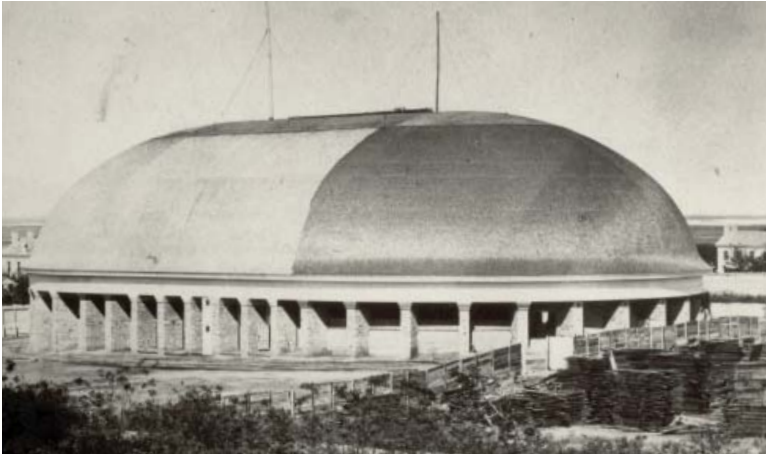
There is no information to indicate what progress was made on the roof during the fall and winter of 1865. It is probable that work was done to prepare the arches. With the coming of spring in 1866, work on the roof went forward rapidly. The March 29, 1866, issue of the *Deseret News* reported: “The roof of the New Tabernacle is growing with gratifying rapidity. Men, looking from a distance about the size of children’s dolls are seen moving about on the top. We admire their nerve, but couldn’t [emulate] it. . . . When the props and sustaining gearing are removed, and the whole is ceiled



12. Henry Grow. Taken from his business card, reproduced on page 232. See a comparison of the two structures on pages 236–37.

13. Otto Grow, son of Henry Grow. Personal report.

14. *Journal History*, October 6, 8, 1865.



The stacks of wood in the foreground are waiting to be applied to the Tabernacle as the covering of the roof is being finished.

Courtesy of Richard Neitzel Holzzapfel BYU Collection, purchased with funds provided by the Stewart L. Grow family

the interior of the roof will be a magnificent span, unbroken by column or pillar.”¹⁵

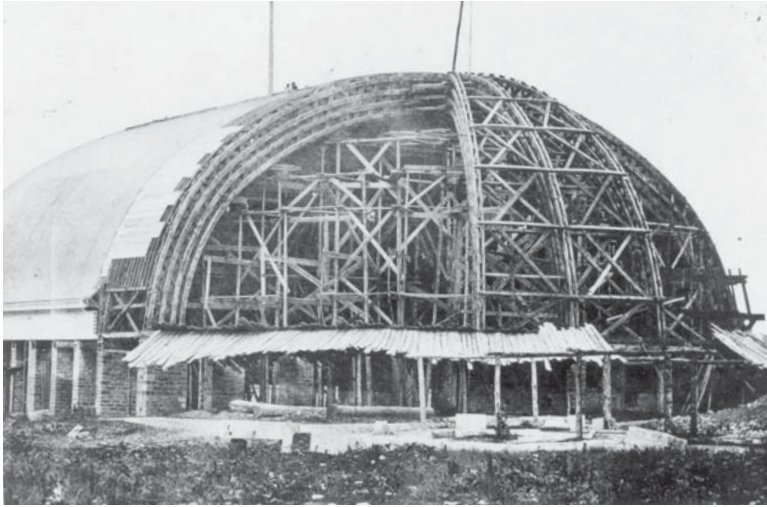
Sheeting the roof was commenced immediately after the arches were in place. This was done to tie the arches together, as well as to form a base for the shingles of the roof. On June 21, 1866, the *Deseret News* observed: “The sheeting for the roof of the new Tabernacle is beginning to glisten in the strong glare of the sun, in its proper place, being covered with a coating of lime to prevent the heat drawing the wood. It looks like the paddle wheel of a hundred Great Eastern’s built together, and is as novel in appearance as it is unique in design and massive in dimensions.”¹⁶

After the center arches were in place, Brigham Young directed that the west end be constructed next: “Thursday, August 9 [1866]. Pres. Young directed the organ to be put in the west end of the new



15. “The New Tabernacle,” *Deseret News*, March 29, 1866.

16. “New Tabernacle,” *Deseret News*, June 21, 1866.



The two ends of the roof were composed of several half-arches that met in the middle, supporting each other. This minimized the weight of the roof and thus the load that the arches had to bear.

Courtesy of Utah State Historical Society

Tabernacle, which is ordered to be covered for that purpose. He wishes the Tabernacle to be prepared so the saints can go in there and worship on a rainy day.”¹⁷

The operation of building the end portions of the Tabernacle was one of the most difficult of the entire construction process. Otto Grow, a son of Henry Grow, told the author that his father walked the floor at night for two weeks attempting to arrive at a solution of how to arch the end sections. The main problem to be solved was the manner of fastening the end arches to the center section. Inasmuch as the end arches were only based at one end, the weight of the other end must be borne by the center arch to which it was fastened. The fear was that such a connection would result in both arches falling. However, by arranging all of the end arches so



17. Journal History, August 9, 1866.

that they came together near the apex of the center arch, the problem was solved. This permitted each of the end arches to serve as a support for the others, thereby removing much of the stress from the center arch.

The work on the Tabernacle was slowed at this point by lack of materials and inclement weather. Brigham Young wrote a letter on November 17, 1865, to his son Brigham Young Jr., who was on a mission in England, from which the following is extracted: “We were threatened with an early commencement of the winter. . . . The new Tabernacle is being pushed ahead as fast as practicable.”¹⁸

In spite of the weather and the shortage of materials, progress was made, and by September 12, 1866, the *Deseret News* reported the following:

Br. Henry Grow informs us that he has raised four of the bents springing from the piers at the west end of the New Tabernacle, and has commenced on the fifth one. It will require fifteen to complete the west end. He has also commenced shingling on the south side, and a point more than half way up to the centre of the semi-circular roof has been already reached. The shingling commences on a concave over the cornice, which will extend round the roof, and has a very neat appearance. The progress being made is highly gratifying.¹⁹

Even Brigham Young was pleased with the progress. In another letter to Brigham Young Jr., dated September 17, 1866, he wrote: “The work on the new Tabernacle is progressing very favorably, and would be pushed ahead with greater speed than at present, if we could procure the needed material. The rains that we have had,



18. “Correspondence,” *Millennial Star*, November 17, 1865, 604.

19. “The New Tabernacle,” *Deseret News*, September 12, 1866.

damaged the roads in the canyons so very much, that the labor of getting out lumber has been much retarded.”²⁰

The weather during the fall of 1866 must have been unusually wet, as indicated above and in the following excerpt from a letter written by Samuel Richards to his brother Franklin, dated December 2, 1866: “We are this fall having an unusual amount of rain, the earth is full, and the roads generally almost impassable. No one travels that can avoid it, not even to bring in coal from Weber, which many need to do. The road has never been so bad since the settlement of the Territory. Teams double to come down the summit through the mud, and the new toll road through Parley’s Park, they say, has no bottom.”²¹

However, in spite of the inclement weather, the Tabernacle was progressing favorably during the fall of 1866—almost three-quarters of the roof arches were up, and some sheeting and shingling had been done. Work throughout the winter of 1866–67 was continued but on a reduced scale. Spring of 1867 again saw the work get under way in full strength, and by April it appeared that the Tabernacle could be completed by the next October. With this goal in sight, the completion of the Tabernacle formed a major subject of sermons during the April conference. The weather was bad at the start of the conference, and so the first session was convened in the Old Tabernacle. On April 7, George A. Smith was one of the main speakers and exhorted the people as follows:

The crowded condition of the Tabernacle this morning, and the reflection that there is a number of persons outside, who are so unlucky as to be too late to obtain admittance, reminds us forcibly of the necessity there exists for a vigorous prosecution of the work upon the new Tabernacle, that



20. “Correspondence,” *Millennial Star*, October 27, 1866, 685–86.

21. “Correspondence,” *Millennial Star*, February 2, 1867, 78.

we may be prepared to accommodate the brethren and sisters with seats, especially during Conference. I expect that by the time our great Tabernacle is finished, we shall begin to complain that it is too small, for we have never had a building sufficiently large and convenient to accommodate our congregations at Conference times. In fact, "Mormonism" has seemed to flourish best out of doors, where there was more room. This circumstance has worn heavily upon the lungs of our Elders, and especially of the Presidency, who have been under the necessity of speaking to very large audiences in the open air, and it is very important that we should concentrate our efforts to render the new Tabernacle habitable as soon as possible. . . .

It is written by one of the prophets, that the time should come when there would be a famine in the land; not for bread, nor for water, but for the hearing of the word of the Lord. Hence it is necessary that we should prepare a suitable tabernacle that we may be supplied when that day of famine shall arrive.²²

President Brigham Young used a similar theme in the meeting:

You men owning saw mills, bring on the lumber to finish the tabernacle, and you carpenters and joiners come and help to use it up. We are going to plaster the main body of this building here immediately; take down the scaffold at the west end from the body of the building while the east end is being put up. And we are going to lay a platform for the organ, and then make a plan for the seats. And we calculate by next October, when the brethren and sisters come together, to have room for all. And if there is not room under the roof, the doors are placed in such a way



22. David W. Evans, "Discourse by Elder Geo. A. Smith, Delivered in the Tabernacle, Great Salt Lake City, April 7, 1867," *Deseret News*, May 15, 1867.

that the people can stand in the openings and hear just as well as inside. I expect, however, that by the time our building is finished we shall find that we shall want a little more room. "Mormonism" is growing, spreading abroad, swelling and increasing, and I expect it is likely that our building will not be quite large enough; but we have it so arranged, standing on piers, that we can open all the doors and preach to people outside.²³

In his talk, therefore, President Brigham Young set the goal for completion of the Tabernacle for October conference of 1867.

The following day the weather was more pleasant, and the conference convened in the Bowery. President Young continued urging the completion of the Tabernacle:

We want the tabernacle finished, and when a man is asked to go and work on it, do not begin to make a wry face, and say "I have got so much work to do." When you carpenters are asked to go and help to finish it, so that we can hold our October Conference in it, do not begin to say "I have so many jobs on hand, and so much work to do, and this engagement and that engagement," wherever they will pay you sixpence a day more, and "I will work for the devil as quick as for the Lord Jesus Christ." Do not say that any more. The mechanics, by their conduct, have said hitherto, "we will build up hell just as quick as we will heaven, if we can get sixpence a day more for doing it."²⁴

The call issued by President Young for workmen to help finish the Tabernacle should have been well received. Economic con-



23. David W. Evans, "Remarks by President Brigham Young, Delivered in the Tabernacle, Great Salt Lake City, April 7, 1867," *Deseret News*, July 10, 1867.
24. David W. Evans, "Remarks by President Brigham Young, Delivered in the Bowery, Great Salt Lake City, April 8, 1867," *Deseret News*, May 29, 1867.

ditions in Salt Lake in 1867 were not good, and the opportunity of work, even at Tithing Office wages, was probably welcome. The *Semi-Weekly Telegraph* has a revealing article concerning the economics of the day in its issue of May 20, 1867:

“Wanted”—At the present time, owing to the general dullness of business, there are an uncommonly large number of persons in want of employment, in this city and vicinity, as well as in other parts of the Territory. Many have called on us, inquiring where they could get work, and, which nobody will be surprised to hear, we have not been able to give satisfactory answers, though there is no doubt that some of them, at least, perhaps many, could obtain employment, if they only knew who was in want of hired help.

To facilitate the procuring of employment by workmen, and of employees by those who need or can make use of them—to bring employers and persons desiring employment into easier communication with each other, we have concluded to inaugurate a cheap class of advertisements, under the general heading of WANTED, and continue the same so long as it may be mutually beneficial.²⁵

At the April conference of 1867, Truman O. Angell was once again placed in the office of Church architect. He had been obliged to leave the position in 1861 due to ill health. Throughout his journals it is apparent that the work of architect was a great strain upon him. He described his resignation and the intervening time in the introduction to his second journal, which he commenced keeping in April of 1867:

My health so left me that I resigned to W. H. Folsom, and went out on my farm and here the parts of my body that



25. “Wanted,” reprinted in *Semi-Weekly Telegraph*, May 20, 1867.

was not called into use in the designing room was put into use on the farm and for one or two years it seemed to do me good, but alas I found I must stop, and what could I do to live. I pondered for days and came to the conclusion I would try joiner work on the new Tabernacle. I done so and while the warm weather of 1865 lasted I was enabled to do a fair summer work, but the cold days of late fall sent me from this back to the farm. Here I staid till spring or April conference, some 5 months and did not do a days work, but at conference I was called and voted to take the office of Architect again. I accepted the mission.

Mr. Angell promptly set himself to the task of aiding in the completion of the Tabernacle. President Young had indicated in his talk that one of the first projects was to get a plan for the seating of the Tabernacle. This, along with making plans for the completion of the rest of the interior of the building, was to be done by Mr. Angell.

At this point it is fortunate that two rather good accounts of the completion of the Tabernacle are available. In his journal Truman O. Angell records the completion of the interior portions—the stand, seats, doors, and so forth—and the pages of the *Salt Lake Daily Telegraph* give a good account of the completion of the exterior of the great building. Mr. Thomas Stenhouse was editor and publisher of the *Salt Lake Daily Telegraph*, and apparently the enthusiasm of the Church authorities for completing the Tabernacle also infected him. From this time on, his paper provides an almost current account of the progress of the Tabernacle. So the continuity of the building process may be clear, the progress of the exterior of the Tabernacle will first be traced. On May 27, 1867, Mr. Stenhouse wrote the following in the *Semi-Weekly Telegraph*:

The Tabernacle Roof.—The many inquiries about the slate colored roof are answered by—Lime, lamp-black, tallow and salt. To 40 gallons of the lime liquid, colored to

suit the notion, add 5 lbs. tallow and salt as with ordinary whitewash.

We got on the roof yesterday with friend Grow and had a delightful view of our magnificent city. Why cannot some of our poets step up and give us some of their rhapsody in verse? Our sisters richly endowed with the precious favors of the muse might not find the steps either steep or difficult to tread. The view is enchanting and the time is the present.²⁶

By July of 1867 the work had progressed to such a degree that finish workmen were needed. The *Deseret News* of July 10, 1867, reports that “at Sabbath meeting held in the bowery on Temple Square the Sunday before, President D. H. Wells called for plasterers, masons and laborers to work on the new Tabernacle, that it might be finished at an early day. He also called for some teams to haul laths from the kanyon. He pointed out the importance of this work being prosecuted vigorously.”²⁷

The call for workmen issued in the April conference, and renewed by President Wells, was responded to vigorously. This is best shown by the rapid progress made on the Tabernacle, as reported by Mr. Stenhouse in the *Salt Lake Daily Telegraph*:

Friday Morning, [July] 12, [1867]. The New Tabernacle.— We were much gratified yesterday in visiting the Tabernacle in company with Gen. Wells, and had pointed out to us the cheering progress of the work on this much demanded building. The call made on Sunday for lath and lathers has been heartily responded to. About sixty thousand laths have been laid down within the building and the lathers are hammering away with an earnestness that shows that soul



26. “The Tabernacle Roof,” reprinted in *Semi-Weekly Telegraph*, May 27, 1867.
27. “Sabbath Meeting,” *Deseret News*, July 10, 1867.

is in the business. The huge piles of sand and lime all ready for the workmen, and the masons also building in between the buttresses, making ready for the carpenters, favor the fulfillment of the wishes of the President, and indeed, the wishes of everybody, that the next Conference be held in the New Tabernacle. The workmen who have responded to this call will feel richer and be richer, than had they turned to it a dull and heavy ear. Of course no one can reasonably expect the entire completion of the building in '67, but to be able to hold the October Conference in one end of it, is in itself much to be thankful for.²⁸

Friday Morning, [July] 19. . . . The New Tabernacle.—The plastering of that immense work is going on finely. We visited the place yesterday and were proud to see the men moving about with a heartiness that indicated a love of their work.²⁹

[July] 25. . . . The New Tabernacle.—The plasterers completed that part of the roof now erected, on Tuesday evening. They have, together with the masons and tenders, done an excellent work, much to their credit. They responded heartily to the call of the President and have completed the work assigned them with great dispatch and done it admirably. They were only two weeks and two days. We should not be surprised that the same laudable spirit imitated by the carpenters and others will bring the remainder of the roof to the same finish by the October Conference. When the President first spoke of the work, some anticipated that it could not be completed before the snow began to fall; but his energy and determination to do it seems to have been shared by the



28. "The New Tabernacle," reprinted in *Semi-Weekly Telegraph*, July 15, 1867.

29. "The New Tabernacle," reprinted in *Semi-Weekly Telegraph*, July 22, 1867.

workmen and the job has been done in a marvelously short space of time.³⁰

[July] 27. The Tabernacle.—The Architect, Truman O. Angel, Esq., showed us yesterday, the President's plan for seating this new building. We were gratified with the decision to place the organ on the west end, directly behind the Speaker's desk and a few seats for certain persons. It will be well heard everywhere throughout the building and accompanying a good choir, will doubtless be a very pleasant association of worship.³¹

[August 9] The workmen have got down, without accident to any one, nearly all the scaffolding used in the construction of this huge building and the roof looks beautiful. They have begun to put up the stand for the priesthood in the west end, and with energy that is pressing work onward, the probabilities are that the great organ will also be built and in use at the next Conference.³²

[August 16] We visited the Tabernacle yesterday, and the stir and good working going on there did us good to look at. The saw, hammer and adze were moving along finely—like John Brown's soul, they were "marching on." That's right, brethren. Your day and ours will come—sometime.³³

[September 10] The Bowery.—On Sunday last the services throughout the day were deeply interesting and instructive. . . . President Heber C. Kimball occupied the time . . . and blessed the workmen for their diligence and application to the New Tabernacle and invited them to



30. "The New Tabernacle," reprinted in *Semi-Weekly Telegraph*, July 29, 1867.
31. "The Tabernacle," reprinted in *Semi-Weekly Telegraph*, July 29, 1867.
32. "The Tabernacle," reprinted in *Semi-Weekly Telegraph*, August 12, 1867.
33. "Going on Bravely," reprinted in *Semi-Weekly Telegraph*, August 19, 1867.

continue, and those who had left to return, and “for the North to give up and the South to keep not back.”³⁴

[September 17] Services at the Bowery.— . . . Bishop John Sharp said he had been requested by President Daniel H. Wells to express his satisfaction at the energy and faithfulness of the brethren who had been working on the new Tabernacle, and to ask them to continue their labors, and those who had left to return. He also invited all who had not participated, to come for the few remaining days and lend a helping hand to the good work, as there was abundant opportunity for all to be profitably engaged, who wished to take part. He thanked Bishop Hunter for the interest he had taken in procuring additional assistance from some of the country wards.³⁵

[September 19] A visit to the Tabernacle.—That magnificent structure is progressing finely. A look at it fills one with great hopes of a great Conference and great preaching. All men are more or less influenced by surrounding circumstances. The sixth of October is looked forward to with interest. We anticipate seeing the people gathering in from all parts of the Territory to be present at the opening. It will be a day to be remembered and spoken of.³⁶

[October 3] The Bowery.—All the scaffolding was taken down yesterday without the slightest accident. The men are working like beavers to get it ready for Sunday. There is great faith and magnificent works operating in that building just now.³⁷



34. “The Bowery,” reprinted in *Semi-Weekly Telegraph*, September 12, 1867.
35. “Services at the Bowery,” reprinted in *Semi-Weekly Telegraph*, September 19, 1867.
36. “A Visit to the Tabernacle,” reprinted in *Semi-Weekly Telegraph*, September 23, 1867.
37. “The Bowery,” *Salt Lake Daily Telegraph*, October 3, 1867.



The older Adobe Tabernacle (left) and the newer Great Tabernacle (right) shared space on Temple Square for many years. The fence partitioning areas of the Temple Block is visible in this photo.

Courtesy of Church Archives

[October 4] Repairing.—Since the Bowery was taken away and the grounds cleared around the New Tabernacle, the building looks imposing. A fence has been placed around it, reaching from east of the south gate to north of the west gate and separating it entirely from the Temple and the Endowment House. The south and west gates only will be opened for admission to the Tabernacle, and for the convenience of those having carriages and horses to leave outside, there will be fixed posts on the opposite side of the streets.³⁸

The last item, indicating that the Bowery was taken away, is good evidence that the Tabernacle was nearly completed and that it would be ready for the October conference.

With the outer shell of the Tabernacle approaching completion on schedule, it is interesting to follow the work on the interior



38. "Repairing," *Salt Lake Daily Telegraph*, October 4, 1867.

of the building in the journal of the man who was doing the drafting work for the interior and also supervising the labor, Truman O. Angell. At the time of his return to the office of architect, he was most anxious to start work promptly. He reports in his journal: “[April] 11th, 12th, and 13 [1867]. Busy a gathering together such things as I could find and prepared a little room between two of the piers of the new tabernacle here I put in such articles as I could find of the old Office but still cannot find enough to commence work with. During all this time my mind has been drawn out on plans for finish but cannot reduce them to the trestle board for the above reasons.”³⁹

The fact that the tools of the architect’s office were misplaced or broken delayed him somewhat. On this point he comments: “My tools are much used up, I mean the fixtures belonging to the Architects Office, and many of the mathematical instruments are out of repair and I have managed to repair them . . . but all such things hinder.”⁴⁰

After getting back into the feel of the work and getting his instruments repaired, at least in part, the work done by Mr. Angell and the progress on the Tabernacle interior can be followed by excerpts from his journal entries. These entries are also interesting in showing the great personal interest Brigham Young took in the construction of the Tabernacle.

[April 29, 1867.] I continued on these designs above mentioned. I have mostly filled them out, they are titled New Tabernacle No. 1 and No. 2, and dated April 1867.

May 1st [1867]. I was in the Office till noon fix the drawing and arranging the centers to hang the doors. In the afternoon I went to the Theater with the children.



39. Angell Journal, April 11, 12, and 13, 1867.

40. Angell Journal, April 17, 1867.

[May] 3rd. Last night my sleep might of been an hour or a little more. I do not feel brisk this morning for work, but will do what I can. I commence to draw of some bills for Br Henry Grow from the drawings I have made for the New Tabernacle.

[May] 6th. I came to my Office early and overhalled the bill thinking it best to omit that part of the east end till I know the particulars of rise of floor of New Tabernacle.

[June 14, 1867.] So now I will turn my attention to design on the New Tabernacle. I went to the Presidents Office. He, Young, took me in his carriage and in going to the temple block met President Wells. He took him in and we went together into the New Tabernacle I heard the President (Young) views on the stand arrangement. I made a minute of it on the slate. He invited us back in his carriage and took us home.

Saturday, [June] 15th. I this day took an outline of the Tabernacle on $\frac{1}{8}$ of an inch to the foot. Got it inked after penciling it.

Wednesday, [June] 19. I got along with penciling on the drawing of Tabernacle seating and flooring arrangement. There are some difficulties not overcome. It will be best to let the President choose what may suit him in the affair. In the morning I will level and leave marks to cite his mind to. If I had charge of this building from the start it would have been my way to of found all the main troubles in a plan ahead of the work, but now it is otherways and I will do the best I can.

Thursday, [June] 20th. . . . I went to the Presidents Office to get his feelings on the subject. Found him in. I stated to him how the leveling of the work came I petitioned to let me raise the floor in front of the stand 2 feet. He heard me on the subject & consented. I proceeded accordingly. The thing will be more harmonious now.

Friday, [June] 21st. Today my labor was intense. There is a great deal of work on this drawing; it cannot be hurried. The leader of the singers called on me by request (his name is Sands). I made a change much to his mind in the seat arrangement and I was on this till noon. I went and saw the President and laid the drawing before him. There is much yet to do. I took up the subject of a stairway to connect with the ones that run up through the timbers to the summit of New Tabernacle. The stairs I allude to that I have been planning run from the ground to top of pier timbers, 18 ft. 3 in. The room is so scant it was quite difficult to get at a way to pass them and not cut important timbers, but I think I can come now. I will try it in due time on a sheet by itself. I shall base the stairs on the diagram I got out today.

Saturday, [June] 29th. Today I got out some seats, or a plan for some. I think it will be a very good one. I also got out a spesiform of finish to the front right and left to finish by. I mean a part of the finish in front of stage, this last sentence sounds better.

Wednesday, [July] 10. I am giving directions for work to Henry, the foreman and the masons, & I am on a plan of the seats full size.

Monday, [July] 22. I was employed in adjusting the drawing and getting it ready with measurements. I now have located a good place for the chorister, and he, the chorister, likes it very much. He is a very modest man.

Tuesday, [July] 23rd. I had a visit today of the committee, President, &c.; and, the organ is to be set in the center of the house, west of the stand. I shall have a busy time of in getting up the change in the drawing.

August, Thursday 1st. . . . I came here this morning and arranged the private stairs to the Presidents stand.

Tuesday, [August] 6. All the fore-part of today, my attention was on placing the stones to take the timbers under the Organ, singers stand, &c.

Thursday, [August] 15th. Had a busy time of it today. The President came here today and made many request. He made up his mind to have a change on the plan of the seats and I got time to partly get it out. I like the change.

Tuesday, [August] 20th. I got time today to draw a plan of the side doors or those [that] reach from pier to pier. The President seemed much pleased as he was here today. Some of the hands seem to come and stay partly through a job and leave again, and this causes to make double care to the manager. I must hereafter take more charge.

Friday, [August] 30th. . . . The front of the stage and the front of the stand in my finish is quite different from the styles of the day. . . .

Saturday, [September] 14th. I have managed to be on hand as usual at 7 a.m. My office is a place of confusion the dirt and litter falling from above, the stage around the house for shingling purposes, cornice, and the like shades my small window. It is too dark to see well; for this reason I am out and about the work.

Wednesday, [September] 18th. I had to see to several new jobs about the building I had, and assisted in getting the lines on the floor to set the seats by next to the stand, and, in fact, forward to where the floor commences to rise, and they seem to be very close together. But I think we ought to consent to seat closest for our friends' sake, &c. A few hundred more can get seated by this means.

Friday, [September] 20th. This morning I feel cast down. I think it is not important for me to stay here when so many smart men are on hand, and they are mighty in make—surely they do not need me. So I pass it off till I am more reconciled. I feel crushed. This morning I had so

many obstacles in my way, I felt like withdrawing from my appointment as Architect, but P. Young viewed the subject otherways and a few words from him made me reconciled, thank the Lord.

Wednesday, [September] 25th. . . . I met the President and 3 of his boys on their way to the New Tabernacle. He opened the subject of our previous talk and as we entered the Tabernacle, I showed him the seats &c. He seemed to concur with me about the iron being placed to the seat and floor to secure them firm, &c. He thought a little cheaper iron would do than the one I suggested, but he is too important a man for me to differ with, let the case be as it may. I submit, I will use his suggestion . . . trusting that it may be durable.

Friday, [September] 27th. On the work in time, I will note the President came to the New Tabernacle, and seemed to approve of the way I had and was closing up of the east end. He expressed I had got all the windows that would be needed [for] the 6 spaces on the extreme east end. He asked if they were to be passages or doorways for the public. I told him yes. He said that [was] right, though only 2 of those are made doors now, the 4 others of the 6 will be used for a gallery when the need of one is wanted, and, in fact, they may be so arranged as to accomodate the lower floor as well. The President hinted this in our chat a few days since. For the time being, these 4 openings will be adobed up to make the house comfortable, &c.⁴¹

At this point, Mr. Angell's son, Franklin, became very ill. In spite of efforts to save him, he died on September 28 and was buried on the 30th. This additional strain on Mr. Angell was heavy to bear, and he was obliged to do a minimum of work at the Taber-



41. Angell Journal, April 29–September 27, 1867.



From 2005 to 2007, the Salt Lake Tabernacle was renovated to bring several structural and technological features up to date.

"Tabernacle construction, 2005–2007" © by Intellectual Reserve, Inc.

nacle. On October 4, he wrote: "The work that is to do on the New Tabernacle is all in the hands of the workmen and they understand it. The old seats wanted to seat the remainder of the house for conference can be done without me, be assured, and then, the house is ready for use."⁴² The old seats referred to by Mr. Angell were taken from the old Bowery and moved temporarily into the Tabernacle so the October conference could be held there.

The completion of the Tabernacle for the conference represents a worthy feat of construction and cooperation. The work actually started September 1, 1865, and the building was finished, so far as to be usable, by October 6, 1867, or in two years. The fact that the building was nearly finished appeared remarkable even to a traveler who was familiar with the fine buildings of the more settled



42. Angell Journal, October 4, 1867.

East. Mr. George W. Pine, a traveler from New York, published the following passage in his book, *Beyond the West*:

Service is in the old Tabernacle, which will accommodate about two thousand persons. I went early and got a seat; but soon the house became crowded, the entrances filled, and many outside that could not gain admittance. . . . The new Tabernacle is now nearly completed; is one of the largest and finest erections in this country; is capable of accommodating ten thousand people; covers the most ground without inside supports of any other building. . . . The superstructure is one of the most perfect specimens of architecture that can be found anywhere; its amplitude and beauty demands admiration. The largest organ in the world, as they say, is now being built for their use there.⁴³

The extent of the achievement in completing the Tabernacle can be better understood when the conditions of the area and the people are understood. Utah was still an isolated territory. There were no railroad communications with the States and centers of production. All items that had to be imported had to be brought by ox team and wagon from a great distance. This brought about a great shortage of building supplies and materials in Utah. This was particularly true of those supplies that had to be manufactured, such as nails, glass, hinges, and organ controls and parts. In deference to this shortage, the huge roof of the Tabernacle was supported by arches constructed without the use of nails or bolts. Instead, wooden pegs were used. Many of the nails used for the flooring and sheeting were hand made, some from old wagon tires. Others were imported from the States. The author at one time possessed some of the original nails used in the building of the stand. They were



43. George W. Pine, *Beyond the West* (Utica, NY: T. J. Griffiths, 1870), 318, 321–22.

extracted at a time when the stand was remodeled and were of the square, handmade variety.

The hauling of materials for the Tabernacle was done by ox team. Often three yoke of oxen were required to bring a load of the stone for the piers from the eastern mountains to the Temple Block. The erection was done almost entirely without the use of machinery.

The Mormons had been in the Valley of the Great Salt Lake only twenty years when they finished the Tabernacle. During much of this time they had been struggling to eke out an existence in this difficult area. It is quite a tribute to these people that they completed the Tabernacle as soon as they did.



