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### **DISCOVERING THE REFINEMENTS OF THE GREAT STONE DWELLING**

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The Great Stone Dwelling has always inspired awe. One of the first to comment upon the structure after its construction between 1837 and 1841 was Shaker brother Giles Avery. Writing in 1843, Avery described the dwelling as “one of the most stately, magnificent, and solid buildings I ever saw.” The largest dwelling built by the Shakers anywhere, the building was regarded as the greatest stone edifice north of Boston and as an astonishing accomplishment in planning, construction, and perfection of detailing.

The Enfield Shakers had to invest immense labor even before they were ready to raise the walls of their great home. The East and West Brethren’s Shops stood on the site and had to be moved north to their present locations. The brook that descends from the hillside to the west ran in an irregular course close to the eastern end of the planned dwelling. It had to be re-channeled to the south, and its former bed needed to be trenched with drains to carry away the ground water and make a dry cellar. Using plows, shovels and carts, the Shakers excavated more than 1600 cubic yards of stones and soil from the great basement, fifty-eight by one hundred feet in dimensions.

Membership of the Enfield Shakers in the 1830s did not include builders with the skill and equipment needed to build granite walls that rise almost fifty feet from their footings to the building’s eaves, or roofers with experience in laying the needed 7400 square feet of imported Welch slate. The Shakers depended on Boston craftsmen to perform the heavy and dangerous work of raising the walls and covering the roof. Luther Kingsley of Boston and Lowell served as masonry contractor for the building, while David Tillson superintended the slating of the roof.

Yet the Shakers did own a quarry that provided the granite for the walls, ample woodlots that supplied the timber, and mills and machinery to saw and plane the woodwork of the building. Shaker brethren quarried and hammered the stone and cut and sawed the timber for the internal framing, drawing these materials to the building site with their own draft animals. The Shakers' immense labor made possible the construction of an edifice that would have been far beyond the financial capacity of the community if its members had needed to purchase the materials from others.

It has long been understood that the Shakers employed Ammi Burnham Young (1798-1874), a native of the adjacent town of Lebanon and an experienced builder-architect, to design their great edifice. Young had already designed brick buildings at Dartmouth College, where his brother Ira was a professor, and was the architect of the Vermont State Capitol, rising in Montpelier as the Great Stone Dwelling was being planned. Young would soon win a design competition for the granite custom house in Boston, and would later become the supervising architect for the U. S. Treasury, designing many federal buildings.

With this quality of talent brought to bear upon the Great Stone Dwelling, it is not surprising that the edifice was extraordinary in scale and workmanship. Yet beyond its obvious distinction, more subtle refinements are becoming clear as the building is examined for work planned under the ongoing capital campaign for its rehabilitation. As a design by one of northern New England's leading builder-architects and as the joint effort of Shaker and non-Shaker craftsmen, the Great Stone Dwelling was one of the most advanced structures in New Hampshire in 1840. The building also shows an awareness of then-current detailing that is surprising in a Shaker building.

Two of the most sophisticated features of the house are invisible except through careful exploration. One of these features is a structural system that permitted the second-floor meeting room, which extends across the full 54-foot width of the building and is almost 38 feet in breadth, to have a floor and ceiling that were originally unobstructed by supporting columns. This structural miracle was accomplished by supporting the meeting room's floor by columns and partitions in the dining room below it, and by supporting its expansive ceiling from above. Hidden in the corridor walls of the third and fourth stories of the dwelling are tall wooden trusses, which extend to the level of the attic floor. The horizontal bottom timbers of these trusses span the width of the ceiling of the meeting room and support the joists that hold the ceiling plaster and the floor boards above. The load carried by this structural system is impressive: by itself, the ceiling lath and plaster of the meeting room weighs some 12,000 pounds.

A second hidden feature of the dwelling is its double-joisted floor system. Throughout most of the building, ceiling joists are tenoned into the bottoms of massive supporting girders. A separate set of floor joists are notched into the tops of these timbers. By this means, deflections in the floors have no effect on the plaster ceilings below. Such a system was common in upstairs tavern ballrooms, permitting the hall floors to spring under the motion of the dancers without damaging the plaster below. The system would likewise have been necessary for the Shakers' meeting room, described above, where

they performed their religious dances. Seeing the benefits of such a structural system, the builders extended it throughout most of the Great Stone Dwelling.

Another unusual feature of the building is the beauty of the finish flooring, which is largely composed of hard pine boards of uniform, narrow widths. Rather than being face nailed, as was common in most buildings of the period, these boards are “toe-nailed,” or fastened diagonally through their edges, making the nail heads invisible.

The dwelling is unusual for a structure of 1840 in being plastered with “grounds.” These are flat boards, run through the Shakers’ planing machines for uniform thickness, and placed beneath all door and window casings, baseboards, and peg rails. The plasterers troweled the wall plaster onto the split-board lath, using the grounds to provide guides for its uniform thickness. After the plaster had dried, the finish woodwork was nailed to the grounds. This system became commonplace later in the nineteenth century, but was rare in 1840. Most buildings constructed in 1840 had their plaster troweled against the sides of the door and window casings.

Still another feature of the building, unusual for a Shaker building, is evident throughout the structure. This is the stylish, worldly nature of the woodwork, especially the five-panel doors and the folding window shutters. Although this woodwork was executed by joiners from within the Shaker community, it is far from exemplifying Shaker simplicity. These paneled elements are, in fact, indistinguishable from contemporary details to be found in urbane buildings of the 1840 period.

By recruiting so much skill from outside the community in the construction of the Great Stone Dwelling, the Enfield elders seem also to have gently suffused the Shaker community with a new acceptance of worldly style. The building is the great home of the Enfield Shakers, built with the integrity and perfection that Shakers invested in all their work. But it is also a demonstration that Shaker craftsmen could borrow comfortably from the architectural style of “the world” if they chose to do so.