

A Legacy Carved in Stone: The Quarries of Chapin Forest

By Chris Worrell, Historical Programmer/Researcher



A small boardwalk provides easy access to Stannard Quarry

The history of Kirtland is inextricably tied to the resources of the land. Good timber, plentiful water, and a favorable climate all contributed to the development of the community, as did area rock formations, which literally provided the foundation on which Kirtland is built. Two types of stone – Berea Sandstone and Sharon Conglomerate – figure prominently in the history of Kirtland. A pair of quarries at Chapin Forest Reservation took advantage of these rocks. Today, the imprint left on the land by quarrying at Chapin Forest presents a material link to Kirtland's past, while also affording interpreters from Lake Metroparks the opportunity to discuss important topics like natural and cultural preservation, and stewardship.

The older of the two quarries is situated in a small streambed at Chapin Forest's Quarry Pond Picnic Area, just off State Route 306. The stone that is located at this quarry is known as *Berea Sandstone*, in honor of a nearby city that owes much of its prosperity to the large sandstone quarries that operated there between the 1830s and 1930s. The Berea formation developed about 360 million years ago as sediments accumulated at the bottom of a shallow inland sea. Eventually the sediments hardened into a durable, easily-cut, aesthetically pleasing rock that early settlers of the Western Reserve recognized as useful and valuable. Berea Sandstone taken from the quarry at Chapin Forest

eventually ended up in monuments, sidewalks, curbs, bridge abutments, and a number of notable local buildings.

Chapin Forest Reservation's Stannard Quarry (named after an early owner who leased the property to members of the growing Mormon Church) is best known as the site at which the Latter-day Saints – under the guidance of church founder Joseph Smith – extracted stone for use in the 1836 Kirtland Temple, which still stands in downtown Kirtland. The massive foundation blocks and stone quoins of the temple are easily recognized as products of the Berea formation, however, the smooth white walls are also composed of sandstone.

Initial attempts to create a brick temple failed. Fortunately, the church was blessed with skilled craftsmen, including Artemus Millet who understood the principles of rubblestone construction. As the name implies, the rubblestone technique involves the use of stone chunks of irregular size and shape, which are mortared together and fitted into place. The Kirtland Temple's rubblestone walls were then coated with stucco to provide an appealing, uniform appearance.

Because the Latter-day Saints had little financial wherewithal, church members were required to labor one day each week at the Stannard Quarry. Although the work was grueling, the followers of Joseph Smith – many of whom were quite poor – sacrificed their

time and energy so that the church and community might thrive.

As could be expected in a community poor in cash and modern equipment, but rich in manpower, early quarrymen employed fairly primitive stonecutting techniques. The *plug and feather* method – a technique involving hammers, wedges, and protective metal sleeves known as feathers – was found to be both cost-effective and easily learned. The results of this early period of quarrying can be seen at the temple, in the foundation and walkway of nearby Century Home Antiques,

and at the brick and stone farmhouse on State Route 306 just south of the quarry. However, physical evidence of this first period of stonecutting cannot be detected at the quarry itself.

Two later periods of quarrying obliterated any evidence of prior stonecutting. Census statistics, tax records, and physical evidence allow us to roughly pinpoint these two eras. One occurred in the late nineteenth century and another in the early twentieth century.

Stonecutting at Stannard in the late nineteenth century is represented at the quarry by wide-spaced, hand-drilled holes, and is further confirmed by the presence of six stoneworkers on the 1880 census for Kirtland. Physical manifestations of such quarrying include the foundation stones of the 1890 farmhouse just north of the quarry, the stone “protectors” at the corners of the Kirtland Temple (circa 1880), and various local bridge piers and abutments. Stone extraction at Stannard seems to have lapsed by the turn of the century. Only one stoneworker appears on the 1900 census of Kirtland, and a lack of physical evidence (i.e. structures) from this period helps confirm that the quarry experienced a lull during this general timeframe.

Another period of quarrying occurred at Stannard in the early twentieth century. This era of stonecutting is represented in the quarry by close-spaced, machine-drilled holes, and is further evidenced by the presence of seven stoneworkers (primarily skilled immigrants from England and Germany) on the 1910 census for Kirtland. Between 1907 and 1910, James Ross, a Cleveland civil engineer, owned the Stannard site. As an expert in interurban and road structures (bridges, culverts, retaining walls, etc.), Ross understood the use of stone as a building material, and he was familiar with the market for sandstone. While Ross probably intended to sell stone to those engaged in the type of business with which he was familiar, he soon found himself supplying materials for the



Rocks reflect in the waters of Stannard Quarry

from Henry and Josephine Everett to their daughter, Leolyn Louise Everett. Leolyn was a well-known poetess and she married the equally well-known American composer Timothy Mather Spellman.

Unfortunately, the pair lived in Italy and seemingly took little interest in Stannard Quarry or the land that became Chapin Forest in 1949.

After the first part of the twentieth century, the Stannard Quarry sat largely abandoned, but in recent years the site has attracted considerable attention. In 2006 Lake Metroparks teamed with Historic Kirtland (the historic site operated by The Church of Jesus Christ of Latter-day Saints), the Community of Christ Church (the organization that maintains the temple), experts from the Cleveland Museum of Natural History, and community members to offer regular interpretive tours of the quarry. From Memorial Day until October, volunteers presented free public tours daily between the hours of 10 a.m. and 6 p.m. The park district intends to continue this partnership in 2007.

A second, larger quarry also exists at Chapin Forest. Sperry Sand and Gravel harvested Sharon Conglomerate from Gildersleeve Knob (historically known as Gildersleeve Mountain) between 1959 and 1972. Sharon Conglomerate is formed by much the same process as Berea Sandstone, however, the conglomerate is roughly 40 million years younger, and it contains an array of smooth quartz pebbles, known locally as “lucky stones.”

The rocks at this quarry were blasted free and then crushed to produce sand and gravel. When operations ceased in 1972, the quarry was essentially an ecological desert, however, under management of Lake Metroparks, the area has returned to a more natural state. Today rare plants grow just feet from rusting skeletons of quarrying machinery, and beaver call the ponds of the quarry basin home.

You can experience both quarries firsthand by registering for a free off-trail adventure, the Two Quarry Tour (see page 17), which will take place at Chapin Forest on Sunday, July 8, from 1 to 4 p.m.



Vegetation reclaims the rocks of Stannard Quarry