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Cover Page Footnote
Darryl Thompson recommended this article for publication and provided important editorial assistance with it. I am grateful for his dedication to seeing this work through the editorial process. I also recognize the assistance of Renee Fox and Bruce Marriott. Renee is the archivist at Canterbury Shaker Village and is well-known for her knowledge of Shaker primary sources and Shaker history. Bruce Marriott is the retired agriculture resources leader of the University of New Hampshire Cooperative Extension, and possesses considerable expertise in both agriculture and agricultural history. —Ed.
The Shakers of Canterbury: Their Agriculture and Their Machinery

By Elizabeth Gleason Bervy

Founding of Canterbury

The Canterbury Shaker story began in 1781 when an itinerant peddler who was acquainted with the Mount Lebanon Shakers made his way to Canterbury and told his story to members of the Freewill Baptist Church in nearby Loudon. This was followed by a visit by Shaker preachers, Ebenezer Cooley and Israel Chauncey, who convinced some of those Christians that the Shaker way was what they had been seeking.

In the formative months and years, or “gathering,” at Canterbury, these already-committed Christians came together frequently in the farmhouse of Benjamin and Mary Whitcher to worship, plan, and hear about the new religion which was also coming together in New York State at Mount Lebanon.

With the conversion of whole families into the Shaker order, there also came whole farms as well as other contributions such as tools, machines and farm animals. The deeded land and chattel became common property, and while a member might continue to have the use of his goods, it was agreed from the beginning that common ownership would be a basic tenet of the covenant.

According to ancient deeds at Canterbury Shaker village, parcels of land were deeded to the order in 1791 and 1793 by Benjamin Whitcher, Henry Clough, and Jeremiah Sanborn. This early complex totaled 250 acres of farmland and forests. Subsequent contributions in the next two

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decades came from the Hoyt, Greeley, Wiggin, and Peverly families, and totaled 1,223 acres by the year 1815. Much of the land, which comprised the three original parcels, had already been cleared and was turned into tillage, while additional forestland was cleared and the acres under cultivation were broadened.

From the very first years of the existence of this Society, the people were industrious and hard working. Their founder and spiritual leader, Ann Lee, had instructed them, “Put your hands to work and your heart to God.” There was a pervasive concern for quality in every form of production among the Shakers, as well as for honesty in dealing with the world in the selling of their products.

Shaker farms were models of efficiency and orderliness and greatly admired by agricultural experts. From the early nineteenth century on, they implemented revolutionary agricultural practices: whenever possible they endorsed the use of mechanization and the most labor-saving technology available in order to obtain the best quality product and to allow time to be involved in activities of a spiritual nature.

In the early years of the history of our country the process of growing any crop was arduous. At the same time, labor was readily available; members of families within the villages helped one another whenever necessary—at planting season, harvest time, and during construction of buildings. Many times the sisters were called upon to lend their help picking fruits and vegetables, and harvesting of anything, which might not be considered fieldwork. The sisters did most of the work in the herb and seed producing and packaging industry. From planting to growing, harvesting, drying, and packaging, there was much hard work since this was a leading industry of the Shakers.

Meetings were held regularly among the ruling elders, trustees, and farm managers to make decisions and plans concerning every aspect of the farm. There were careful discussions concerning which of the workers and which of the brethren were best suited to tasks and areas of responsibility. Every aspect of activity on the farm was considered in order to maintain quality, economy, and the best use of the land and care of the animals. In one such meeting there was a rather lengthy discussion as to who should decide which of the calves should be kept and raised by the Shakers—a matter critical to the continued success of their prized and valuable herd. There were hired hands and Shaker brothers working the farms and woodlands and the tasks were assigned to the man best suited for the job.
Another discussion in one of these farm meetings concerned the amount of grain which should be fed to the carriage horses, plus the horses of visitors sheltered in the same shed with the Shaker horses. It was concluded that each horse should get a scoop and a half per day and that the grain bin should be locked except when the horses were being fed.\(^3\)

To obtain a reliable water supply a dam was constructed a distance of three miles to the north of the village starting in 1800. At great expense to the energy, time, and even the physical well-being of the members, a trench or ditch was built from the reservoir to a pond at the North Family location. Since a small mill was built there for the grinding of grain and the sawing of lumber, we can be sure that wheat was a staple crop in the early part of the nineteenth century. In 1834 this mill was replaced by a larger, two story structure which was equipped with four “runs” of stone\(^4\) allowing the Shakers to grind flour for themselves as well as for their neighbors.\(^5\)

In an effort to be as self-sufficient as possible the Shakers developed many industries to produce articles for their own use and for the market place. Their efforts were successful because of their striving for a standard of excellence in all that they produced. In the early days, agriculture-related industries were, for the most part, an offshoot of the sheep raising and dairy industries.

As early as 1796 the weaving industry was organized in such a way as to produce “wide cloth 4170 yards, binding 2975 yards, tape 1,140 yards.”\(^6\) Carding, spinning, and weaving were performed by hand until the spinning jenny was introduced in 1823, followed by the use of power looms in 1842. Shaker flannel and wool were renowned. The sisters made knit wool stockings, underwear, and the Shaker sweater, now know as the varsity sweater, which were made in great numbers for colleges and universities in the East.

As early as 1811 it was recorded that 2,884 pounds of cheese was produced by the Canterbury Society.\(^7\) Later in the century the figures for butter production and sales were even more substantial.

A narration of the hardships of the first winter endured by the Watervliet society in 1788 provides the first evidence of the crops that were raised. It was noted that wheat was regarded as the main source of food and reference was also made to a fruit crop. According to Robinson, “Crops were badly damaged the first winter, prompting them in the next year, 1789, to also raise potatoes in great number, (some three thousand bushel,) as well as a good crop of wheat, rye, oats, barley, corn and flax.”\(^8\) This was
cited as evidence of thrift and determination on the part of the Shakers to make a success of their communistic society. While there are differences in the soil structure between the Watervliet Society and that of Canterbury we know that there was close communication during that period; therefore we can assume that those crops were also raised in Canterbury. Indeed Francis Winkley specifically recorded the Canterbury community growing flax peas, barley, hay, wheat, and planting fruit orchards. Also, in her brief history entitled *Industries and Inventions of the Shakers*, Eldress Bertha Lindsay
points out that each Shaker community was self-sustaining and for the most part was able to supply goods for their own needs. The communities tended to share goods because of frequent visits of the leaders.\textsuperscript{10}

Crops grown by the Shakers were similar to those of their neighbors, in the early years, except that Believers also devoted themselves to the garden seed and medicinal herb business, which became a major industry at each of the Shaker sites.

In every article or book written by visitors to the Shaker communities there was always a great emphasis on the orderliness of the buildings, fields, and grounds within the villages, and on the general condition of the tools and equipment. Also, of universal appeal to visitors was the distinct air of calm, order, discipline, and an unhurried but diligent attitude toward the task being worked on.

There were many monthly publications for the farmer and the farm gentleman during the mid-nineteenth century which were distributed about New England. Much of the information available to us concerning this time frame, which lends insight into the crops and animals that were raised at Canterbury Shaker village, is a result of visits to the village by editors of various farmers’ monthlies. The public was not welcome on the east side of the road where the community lived and did its work. It was, however, welcomed on the west side of the road in the Trustees Office in rooms which were set aside for just that purpose. In every account by visitors we read about the experience of being greeted and hosted by a trustee and or an elder, sometimes of both sexes, if the visitors were of both sexes. The visitors wrote of being invited to rest and freshen up after their travels, and of the hospitality extended to them. The Shakers shared their meals and their time in giving guests appropriate tours of the village, depending on their roles and interests.

Some of the descriptions in the farmers publications of the activities, industries, work details, crops planted and harvested, animals raised and machinery used are valuable to us since they describe every aspect of Shaker life. It is not until mid-century that we begin to have a clear picture of exactly what is being planted and harvested in the fields, and what agricultural methods the Shakers were using.

An article written by a correspondent from the town of Warner for one such farmers’ monthly journal in 1860 paints a detailed picture of the village and farming practices which he saw. There were 2,500 acres of land at that time at Canterbury and the members numbered approximately
The primary crops during this time were hay and a variety of grasses, followed by corn, then barley, oats, and wheat. One writer describes “elegant fields of wheat, some of which stood nearly three and a half feet high.” Crop rotation and fertilization were practiced during this period with the aim of obtaining heavy crops of weed-free grasses. This was necessary for the feeding of their milk cows, oxen, workhorses, carriage horses, and sheep.

Other crops during mid-century included the fruits of a twenty-five acre orchard, including apples and pears, as well as and small fruits and berries. Many varieties of these fruits were raised.

Probably the most dramatic feature of this farm was the imposing center of activity of the farm life—the great cow barn of the Canterbury Church Family. Three stories high and two hundred feet in length, forty-
five feet in width, with an ell on either side of twenty-nine feet by twenty feet wide, the barn measured 250 feet overall. Hay wagons were drawn up a ramp to the top floor, unloaded, and driven through the barn and down a similar ramp on the other side. This arrangement allowed the men to pitch hay into mows on either side of the wagons rather than up into high mows. Later in the feeding season the hay was pitched down through chutes to the animals.

According to one account, “The floors, partitions and ceilings are all planed and finished off, as nice as a dwelling house.” In every account which describes the interior of the great barn there is mention of its cleanliness and order. The Shakers strove to have clean air inside the barn as a necessity to the production of pure milk, and for the most perfect conditions for the health of the cattle. Therefore, ventilating chutes were constructed from basement to rooftop to carry off odors and bad air from all levels in the barn.

The great cow barn, Canterbury, N.H., ca 1880.
A two-story barn, 100 feet by 27 feet, including calf pens, storage rooms and a hospital area for sick animals on the lower floor, extended from the great barn. The loft was a storage area for hay, grain and straw. Also, a sheep barn measuring 108 feet by 17 feet wide was constructed in 1860, and was three stories high.\textsuperscript{15}

At the time of this visit by the representative of the \textit{Country Gentleman and Cultivator}, the Shakers had Ayrshire, Durham and Devon breeds, as well as mixtures of various native types, many of the former being of the finest pure blood lines.

The reporter observes that farming operations are performed at the right time and in the best manner. He refers to his visit of a few years earlier before the availability of mowing machines, just as the hay crop of 150 tons had been brought in. “Every clip was cut with the scythe, and every load of it stored in the barn in less than three weeks.”\textsuperscript{16} This is clear evidence of the availability of labor in the community at that time.

The editor of \textit{The Farmer’s Monthly Visitor} wrote an observation in the form of advice to farmers regarding the importance of improving their breeds of cattle for the sake of perfection in the animals as well as improving the lot of the farmer. He described in detail the superior features of the Shakers’ Durham cattle, heifers, calves, and bulls, remarking on the great

![Canterbury Shakers’ herd, ca. 1880.](image-url)
difference in their “size and comeliness” as compared to those which he saw at other farms along the roads and pastures. He spoke of one prize bull in particular, “who was brought from the Brethren at Mount Lebanon, New York and his sire and dam came to New York from the Shaker community in Kentucky.”

He praised the advanced state of farming at Pleasant Hill and claimed that the Durhams there sold for one to two thousand dollars each. He referred to these animals as “splendid” and gave some of the credit for this to their “excellent keeping,” a reference to the Shakers’ fine pastures, which were much better than those in the lower towns.

He concluded that in from three to five years the Shaker enterprise would be rewarded with a kind of cattle probably worth at least double the value of their cattle at that writing. These were valuable and superior animals. Also, in her oral history of Canterbury, Eldress Bertha Lindsay noted, “Our fine Guernsey cows were purchased by the Canterbury Shakers from the English Isle of Guernsey.”

At mid-century the Shakers at Canterbury owned some 2,500 acres of land; 1700 acres were tilled, the remainder was pasture and woodlots. L. Bartlett of Warner, New Hampshire, found the dwelling houses to be large, “substantially built and finished in the most thorough manner, with every convenience for saving and economizing labor, and … kept with the most scrupulous neatness.” This was a typical reaction to seeing Shaker Village, and those words could well be used to describe the farm, fields, and the machinery as well.

Crop rotation was practiced, at this time with an emphasis on hay and grasses, since the soil tended to most easily produce that crop. Barley was seeded in haying fields in fall and spring and fertilized in the spring. It was found that plantings of potatoes and corn between grass plantings eradicated weeds and good grass crops could be had for two or more years. Some of the hay fields of Canterbury were not turned up by a plow for forty years but fertilized every four years. Isaac Hill described “an elegant field of twelve acres … directly back of the great barn.” This field produced two to three tons of hay to the acre, which was considered a superior crop at that time.

A great labor-saving device at mid-century for the Shaker brethren was the revolving horse rake, which distributed the mown hay into rows for easier gathering. The hay was pitched onto the hay wagon by hand, with pitchforks, until there was a full load; then it was driven to the barn. An ingenious device for unloading the hay was a hook, or grabber, and tackle
arrangement. This device required many men to operate it, which worked very well for the Shakers. In an account by Frances Winkley, trustee of the community early in the century, the process of “taking off hay from the load and placing it on the mow by a horse, with grabs, or hooks, fixed to a tackle, which is suspended to the ridge pole or rafter of the barn, nearly over the center of the mow, and to the rope of which (passing under a truck) a horse is hitched and ridden by a small boy directly forward through the yard. We frequently take off a ton of hay at four or five draughts, each of which being suspended by a rope, is by two hands easily swung, as the rope slacks, to any part of the mow. The rope is held by the loadman, while the horse turns about and commences his trip towards the load.”

Brother Frances also described the use of a thrashing machine, moved by water, to thresh and winnow the grain unusually clean—as many as sixteen bushels per hour. The next most important crop for this village would have been oats, and in the early part of the nineteenth century their annual production was from eight hundred to one thousand bushels in a growing season. In an effort to preserve the crop, fine salt was sprinkled on the grains as they were thrown into storage bins.

All three of the families at Canterbury raised Merino sheep, noted for their long, fine, and silky wool. The sisters were responsible for spinning and weaving of the wool into fine cloth and flannel.

Of special note in The Farmer’s Monthly Visitor is a description of the apple orchard of the North Family, which was considered to be one of the finest in the state. Cared for under the direction of Peter Foster over seven hundred trees had been grafted with great care and were flourishing.

There are endless lists of industries, handwork, manufactures, foodstuffs and tools which were produced by members of Canterbury Shaker Village during the nineteenth century. Most of the products were created from raw materials from the land or derived from produce of the land.

Agriculture at Canterbury 1880-1920

The period being closely examined here was the time of increasing interest in the machine in this country. Machines were being invented, produced, purchased, modified, and adored. Time-saving, work-saving, back-saving machines were also appreciated by the Shakers.

Also at this time young people in New England were leaving the farms in favor of the lure of life in the cities and factory towns and their better-
paying jobs. Some of them headed west toward the promise of getting rich by homesteading and laying claim to what might become their own farm. Population decrease in rural areas was mirrored at Canterbury Shaker village. This is a multi-faceted phenomenon which cannot be explained in summary but census statistics for 1880 to 1920 illustrate the decrease.

<table>
<thead>
<tr>
<th>Year</th>
<th>Membership at CSV</th>
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<tr>
<td>1880</td>
<td>158</td>
</tr>
<tr>
<td>1890</td>
<td>not available</td>
</tr>
<tr>
<td>1900</td>
<td>87</td>
</tr>
<tr>
<td>1910</td>
<td>76</td>
</tr>
<tr>
<td>1920</td>
<td>62</td>
</tr>
</tbody>
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While it may be said that men left the farms in New England as a result of increased mechanization of farm work, that theory cannot be applied to Canterbury Shaker village. Mechanization did increase, steadily and even dramatically during those years at the Shaker farm, but there was certainly enough work in the various industries and enterprises of the community to make welcome any number of members.

The last two brethren at Canterbury were Elder Arthur Bruce, who busied himself with the role of trustee for the community, not necessarily the daily routine matters of the farm; and Elmer Irving Greenwood, who indeed did concern himself with the daily chores, duties, and production of the farm. Brother Irving kept a daily journal from 1894 until his death 1939. His diary summarizes the daily farm activities and gives us insight

Brother Elmer Irving Greenwood, ca. 1920.
as to the crops raised and machines used, as well as glimpses of the lifestyle during that period. He also recorded lists of the machines and implements purchased by the family during those years.

It is clear that in spite of the decreasing numbers of men to work the farms at the Shaker village during the last two decades of the nineteenth century, those were the years when the largest number of machines were purchased. The amazing age of mechanization made its mark on our nation, on New England and on the farm at Canterbury. From the journal of Brother Elmer Irving Greenwood and his lists of machines purchased, as well as from the photographs taken during this time period, we have evidence of the changes in the Shakers’ work patterns and agricultural methods.

All of the machines were horse-drawn implements in the late nineteenth century, with tractor-drawn equipment being purchased around the turn of the century. During that transition period it was common for the brothers to modify some of the horse-drawn pieces for tractor use, simply by shortening the whippletree, sometimes known as the singletree. At one point the Church Family used their oxen teams, continued to purchase workhorses, and began to buy tractors all in the same year. While the overall transition to mechanization took place rather quickly at Canterbury Shaker village, the shift from horse power to tractor did not.

Plowing would have been done with a walk-behind horse plow until 1919, when a Ford tractor plow and an International plow were purchased. A sulky plow was purchased as late as 1897. The next process would have been the use of a harrow or disc to break up the soil and prepare it for seeding, with their new American seeder and cultivator, most likely made by the American Seeder Machinery Company of Richmond, Indiana. (In the very early days this process was accomplished by walking across the field with a long thin box filled with seed, a rope on each end and suspended on the man’s shoulders, and seed was broadcast by moving a small lever back and forth.) The Shakers also bought a fertilizer distributor.

As their crop of grasses, grains or hay came ready to harvest it was cut with horse-drawn, six-foot “Big 4” McCormick mowers (they bought two in 1911) and in photographs from a few years later we see that six at a time were used in order to get the hay down most efficiently. The hay would dry for a day, then be turned and drawn into windrows with the Bullard hay tedder. The process of getting the hay from field to barn did
not change significantly from what it was at mid-century. The oxen teams which pulled the hay wagons were eventually replaced by tractors, but the same pitchforks were likely used for almost one-half century, and the taking of hay from the wagons to the mow remained the same.

Other grain products would have been raised and harvested with the same machines as the hay, with some variations. After 1902, oats, barley, and wheat would have been harvested with the McCormick reaper and binder, then cleaned and winnowed with the water-powered threshing machine.

Corn was planted after 1894 with the Eclipse corn planter, and after 1896 cut and tied with the McCormick corn harvester. After 1902 it was chopped up with the #13 Ohio ensilage cutter. After 1903 the Shakers progressed to a two-row corn planter and after 1905 the Adriance corn harvester was added to their tools.

Other important machines purchased during this time were the Aspinwall potato planter, a fertilizer distributor, three Worcester Kemp manure spreaders were bought at once. In 1906, an “Iron Age” potato digger, a nine-foot Yankee rake, and the list goes on.24 A fine specimen of a one-horse power wood splitter is on the grounds at Canterbury Shaker village. Other machines which were probably used are the fanning mill, the corn sheller, the cider mill or press, and various wagons and carts.

An entry in Brother Irving’s journal on December 30, 1897, noted, “Heavy wagon (made by Chandler Eastman & Co.) Half platform springs 2 2″ drop axles with wings and sideboards. Heavy brake. Painted with Canterbury Shakers on each side and gear guaranteed to hold up to 2 tons. It cost $243.”25 This wagon is at Shelburne Museum in Shelburne, Vermont.

The day-to-day management of the farm did ultimately end up in the hands and heart of Brother Elmer Irving Greenwood. He tended and mended; and supervised the work of the men, all hired hands, in the dairy and the fields. Mechanization in the late years of the community was extremely important.

The Shakers sold their prize Guernsey and Ayrshire dairy herd in May of 1920. Shaker farming as we know it ceased to exist after that. The farm was leased to various individuals in order to “keep the land going,” and to have a bit of income. There remained the sale of timber and vegetables and fruit, but the Shaker dairy was an entity of the past.
The farm was extremely productive during this period. It was as productive, lucrative, and possibly as influential as a model farm during these years when there were the fewest members as it was during mid-nineteenth century when there were large numbers of members. It is very possible that the community continued to flourish for a longer period of time as a result of the mechanization process, than it would have without such equipment to help with the work.

The machine definitely played an important role at Canterbury Shaker village during this time frame. As the last of the Shaker brothers dwindled down to two, a great deal of work was done and the farm still operated, with a few hired hands, and the brothers continued to buy machines until their last days.

After the passing of Elder Arthur Bruce and Brother Elmer Irving Greenwood, there remained thirteen sisters at Canterbury. The women lived a more quiet life, as there was little activity in the village. Each sister retained her place within the structure. They continued to do their women’s work: cooking, baking, cleaning, writing, sewing, and selling their fancy goods whenever possible.

The sisters dressed in their plain and patterned dresses and wore their Shaker caps — visible reminders of their place in the world. They lived on after the men and remained dependent on the order, dependent on the work the men had done. As long as they lived, they kept alive the Shaker spirit, just by being.

Notes

4. A “run” is a stone-lined channel which brings water to the mill.
7. Lyford 366.
10. Bertha Lindsay, Industries and Inventions of the Shakers: A Brief History ([Canterbury, N.H.]):
Canterbury Shakers, [n.d.]).
23. The dictionary defines “whippletree” as “The pivoted crossbar at the front of a wagon, to which the traces of the harness are attached.” *New Twentieth Century Dictionary of the English Language Unabridged* (Cleveland: World Publishing Company, 1967). Bruce Marriott describes it as “the wooden piece they attached to the leather traces on each side of a horse and had one hook that could then be attached directly to farm implements and wagons.”
Elizabeth G. Bervy, the author of this paper, passed away on June 18, 2007, at the age of 71. From Elizabeth’s earliest years her life was characterized by great love for family, strong religious faith, a devotion to agriculture and rural life, and a deep affection for the Shaker people and their history and culture. She was born on December 31, 1935, the daughter of Ernest S. and Katie Mae Gleason of Chatham Center, N.Y. The family’s farm was not far from the Mount Lebanon Shaker colony in New Lebanon, N.Y., where Elizabeth’s father and grandfather were friends of the Shakers. The Gleason men and the Shaker brothers frequently exchanged labor, cut each other’s fields, and traded livestock.

Elizabeth attended Chatham schools and graduated from the University of New Hampshire with a bachelor’s degree in fine arts and history. Later, at SUNY Albany, she received a master’s degree in public history, focusing on curatorial studies and Shaker history. Elizabeth lived and worked at several Shaker museum sites, including Canterbury Shaker Village, Hancock Shaker Village, and the Shaker Museum and Library at Old Chatham, N.Y. It was at Canterbury that she conducted research using original documents that resulted in the insights into Shaker agricultural practices that are presented in this paper.

Her work also resulted in accomplishments in other fields as well. Elizabeth was co-founder and director of Towne Gallery in Lenox, Massachusetts, for many years, and she established the Adirondack North Country Craft Center in Lake Placid, N.Y. Passionately committed to making American society more responsive to the needs of the elderly, she tirelessly worked as an advocate for senior citizens in the Albany area and, as an employee of the town of New Scotland, helped implement an outreach program for seniors that still continues today. Elizabeth’s legacy lives on not only in the scholarship seen in these pages, but also in the many lives she touched.