

Woolens Industry

by Jennifer Stone Gaines

All through the woodlands of New England, we see stone walls marching off into the trees. On the hills of Cape Cod, we find the walls, whispering to us of our past. These walls were built about 200 years ago, when this land was covered with thousands of sheep. The walls, today crumbled and lowered, mark the sheep pastures and woodlots of the people who eked out a living on this peninsula, people intimately tied to the land and their animals.

Early settlers built homes on the flat land at the edges of the hills, using the flat outwash plain for their crops, harvesting the salt hay from the marshes for winter fodder for their animals. Where the natives had grown corn, bean and squash, native grasses grew offering ready pasture and open land for planting by the new settlers. The original proprietors' records show that each settler was granted "a hill lot and a plain allotment."

Sheep were a perfect match for hilly pastures too full of rocks for plowing. By 1780 many small farms had turned to sheep as a "cash crop," selling the wool as raw fleece, or as wool spun and woven on the farm, as well as for meat. There are few clear records of those farms and finances, but Naushon Island just southwest of Woods Hole, where tenant farmers had to report to a manager on the mainland, is the

exception. Much of what we know about sheep raising in this area can be gleaned from Naushon's detailed records.

There were so many sheep in Falmouth, often pastured on common land, that a method of identifying ownership evolved: marks cut into the ears of sheep in a pattern specific to one owner. The first recorded in Falmouth is that of Jonathan Hatch in 1679:

"the mark he gives to his creatures is a half crop on the left hand and a ha'penny hole in the hindside of the same ear." Much later, Seth Gifford of West Falmouth carefully recorded sheep marks and their owners. His book, now in the Falmouth Historical Society's archives, records and

diagrams 228 different owners, a true measure of the widespread ownership of flocks.

During the Revolution, and again in the War of 1812, the British navy came ashore and stole, and occasionally bought, livestock. Official British records state that in 1778 they "secured about 1,000 more sheep and lambs on a small island (Naushon) under the protection of the *Unicorn*." In 1814, the British vessel *Retaliation* recorded that "before leaving the (Tarpaulin) Cove, we stole 8 sheep (half merino breed) and several turkeys from Withington (the tenant farmer)."



Woolens Industry Plaque by Sarah Peters. Photograph by Jacki Forbes.

Woolens

Comments by Sarah Peters

This plaque depicts a scene at the Old Bowerman Homestead in West Falmouth. The Bowerman Homestead was built in the 1600s and still exists today in remarkably fine condition. It has a bowed roof, which was achieved by weighing down the ends of the wooden beams as they cured. The house had been in the same family for 300 years, and was preserved as a museum for several years before the family sold it. Today it is maintained in its original condition by Dr. Edward Hughes and his wife, who were gracious enough to let me wander the premises and take photographs as part of my research. West Falmouth Library has many boxes in their archives relating to the Bowerman Homestead, which I referred to as well.

Researching the shearing process was surprisingly rewarding. I relied heavily on the wealth of information provided by blade shearer Kevin Ford. He is the author of *Shearing Day: Sheep Handling, Wool Science, and Shearing With Blades*. His historic knowledge is vast, and his practice of hand shearing, much in the same way that it has been done for centuries, is fascinating to witness. I had the pleasure of observing him twice in 2005. As a result, Kevin Ford was the model for the shearer in this plaque.

The sheep that were most likely to have been raised here in 1840 were Spanish Merino. They were not the Spanish Merinos of today, with the abundant rolls of flesh and highly dramatic curling horns. They had a more delicate form, closer to that of the Gulf Coast Native, which I was able to see on a shearing weekend at Old Sturbridge Village, in western Mass. Old Sturbridge Village is an 1840 working farm community. I researched costuming, oxen, carts, and everyday tools there, as well.

During my visit to Old Sturbridge Village I also watched women preparing the fleece for spinning by washing the wool in iron pots of hot water. These chores (shearing, cleaning, carding, and spinning wool) would not have been done all at once, but for educational purposes, I opted to include several aspects of wool preparation in this image.

In the background you can see the shorn sheep to the left, the unshorn sheep waiting in the sheep keep, and the rolling rocky hills that would have composed our landscape in 1840.

There are records of British soldiers landing in Woods Hole and taking livestock. On April 1, 1779, ten ships of the Newport fleet sailed to Tarpaulin Cove and sent a raiding party out to land in Woods Hole. They avoided the watch set along the shore and followed a guide to the farm of Ephraim and Manasseh Swift. While the rest of the soldiers were driving the cattle down to the beach, a party went to the farmhouse at the head of Little Harbor where Tamar Swift, Manasseh's wife, was alone with her children. Two soldiers each ran his bayonet into a fat cheese which raised Tamar's wrath. She slipped

the cheeses off the bayonets into her blue checked apron and told the retreating soldiers they were fitted for just two things, to rob hen roosts and make hen-pecked husbands.

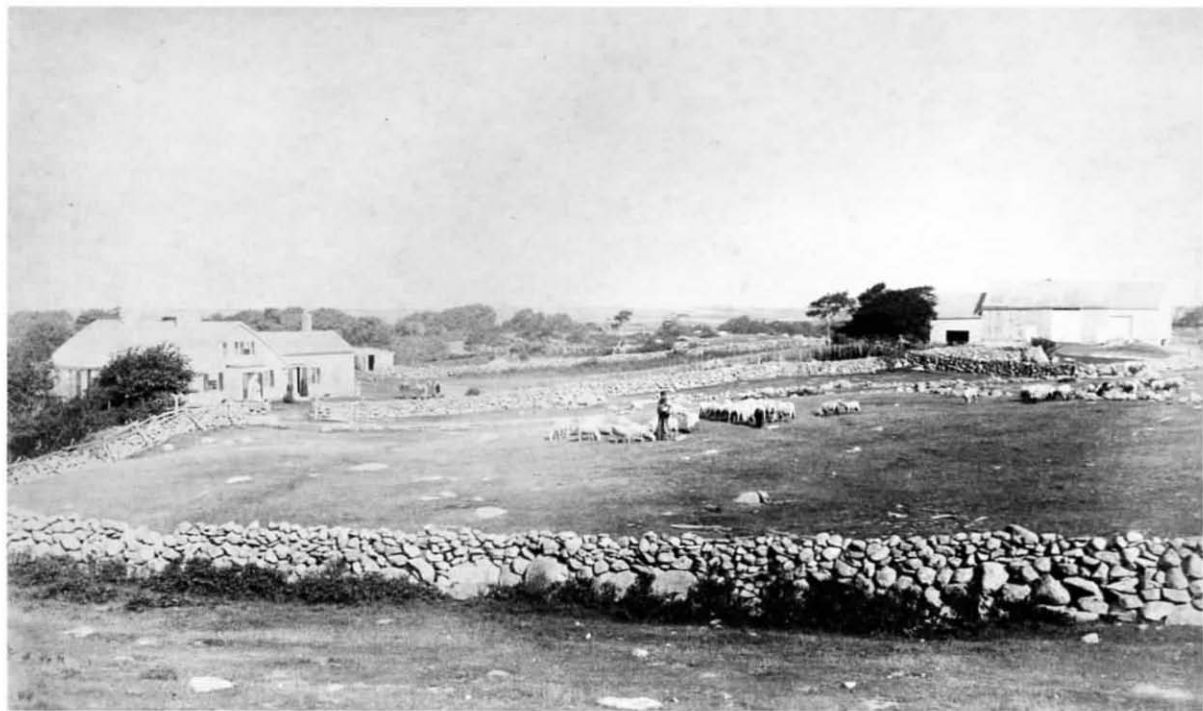
Betsy Bradley, who lived in the house that is now the Woods Hole Historical Museum, related that during the War of 1812, her husband and brother were working on the island of Naushon just across Woods Hole Passage from the village of Woods Hole. They met a party of British soldiers who had come ashore looking for sheep. When the question of payment

came up, the soldiers said they knew the owner back in England and would make it right with him. The locals said they thought it would be a better idea if the soldiers put the money under a rock at the edge of the field. This story is preserved in the WHHM archives at Betsy Bradley's old house.

By the end of these wars, the coastal flocks had been decimated, but the farmers were determined to build them up. Careful breeding improved the quality of the animals. In the first two decades of 1800, there began a "merino craze" in New England, when many of this Spanish breed were imported at huge expense, greatly improving the quality of the wool. Naushon started ahead of the rush, importing "ye Spanish breed of sheep" in 1804, but probably most of those were lost to the British navy's tables. To

this day, merinos are the world's premier producer of fine wool.

Wool again became the major source of income for the local farms. But before the product was saleable there were many hours of hard work. The sheep had to be moved from pasture to pasture to keep them in good grass. The rams had to be separated from the ewes by late summer so that lambs wouldn't be born too early and die of the cold. Ram Island in Great Harbor gets its name from its use as a place to sequester the rams when the adjacent peninsula, Long Neck, now Penzance Point, was all grazing land. Even so, there are heart-breaking accounts of lambs coming too early, or severe storms coming late, resulting in many deaths to both lambs and ewes.

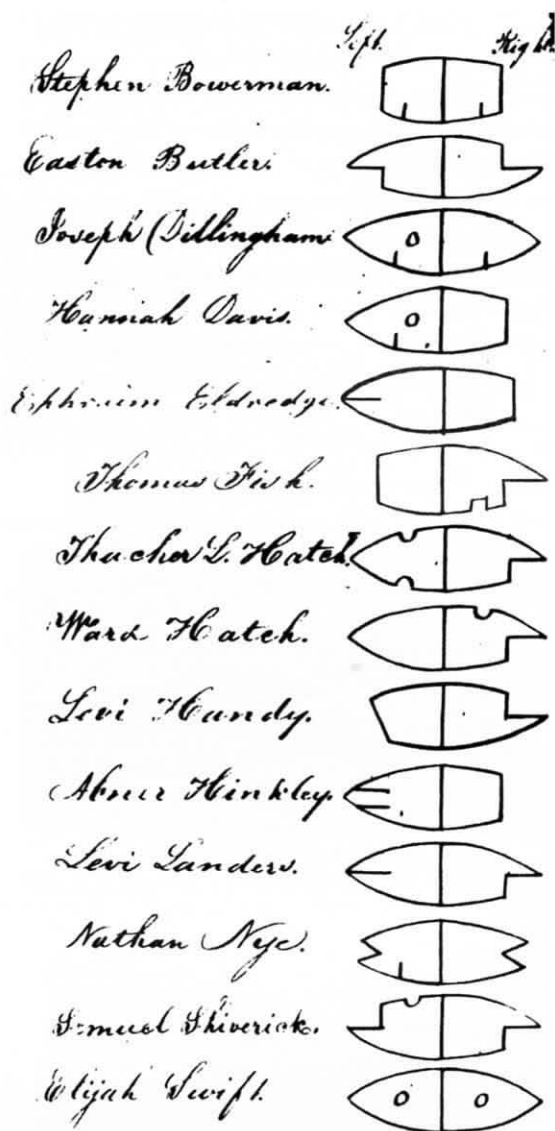


A flock of sheep on the Bowerman farmstead in a pasture enclosed by stone walls. Many of the walls remain, accents in our modern landscape. Courtesy West Falmouth Library, Bowerman Collection.

Winter was always a worrisome time for the farmers. In 1857 on Naushon, 39% of the flock died in a blizzard in February. As many as 20% dead by the end of winter was normal. Deep snow drifts could suffocate the flock. In Beebe woods today, you can see evidence of a form of protection against this hazard: a sheep creep. In the corner formed by stone walls is another stone wall, creating a triangle, broken by a gap in the third wall. Poles were placed across the top of these walls forming a roof. A small flock could shelter beneath the roof and live through a heavy snow storm.

Pregnant ewes were brought in to the home pasture in the early spring, to be close to the farm family's careful watch at lambing time. Later in the spring came the most labor intensive time of the year: shearing. On any of the farms with a large flock, extra workers were brought in for this event. Even today most sheep shearers travel from farm to farm with their expertise.

Local historian Clarence Anderson wrote that West Falmouth sheep were driven across the grassy hills to Long Pond to be washed before shearing. There are other reports of sheep being washed in Shiverick's Pond in May. The well-preserved records of Naushon refer to fleeces being sold, separated into categories of "washed" and "unwashed." One year, there was a notation of the fleeces from Nonamesset being "sandy" and bringing in an even lower price. More frequent was the practice of the farm women washing the fleeces after shearing in great cast iron cauldrons over an open fire. All the work on the fleeces was the woman's job. Much of it, after the washing, was done in the home throughout the year: carding, spinning, and weaving. Most houses had a spinning wheel and a loom set up permanently, so the women could work on the wool whenever they had the chance, earning important money to help the household.



Seth Gifford kept records of the notches cut into the ears of sheep to clarify ownership in the days when there was common grazing on the fields of Falmouth. To the left of the vertical line is the pattern cut into the left ear; to the right of the line is the pattern cut into the right ear. Names of owners are recognizable in the names of streets and sites all over Falmouth today, as well as in the names of people still living in Falmouth. From Seth Gifford's sheep earmarks log, courtesy Falmouth Historical Society.

Of the many homes in Falmouth where this way of life was carried out, only one remains: the old Bowerman homestead in West Falmouth. It was built in the 1600s and stayed in the same family for 300 years. Well into the twentieth century it was run as a farm. Fortunately for us, family records and photographs have been preserved and are in the archives of the West Falmouth Library. There we can see photographs of the farm with its rocky pastures and sheep and know that the scene represents farms that covered Cape Cod.

As time progressed, more farmers raised larger flocks of sheep. In 1831 Falmouth raised more sheep than any other town in Barnstable County. By the mid 1800s, most of Cape Cod was open land: all the forested lands had been cleared; sheep grazing kept the land in grass.

Water powered mills had been adapted to process wool by the late 1700s. All across Cape Cod there were grist mills powered by wind or water. Some of those grist mills already built on dammed brooks were converted to woolen mills. Soon other mills, built specifically for the woolen industry, were con-



Woolly sheep graze on barren hillside, probably in March, on Naushon Island in 1969. Foreground sheep are nibbling on a tiny patch of snow still hiding in the shade of a rock. Photo part of the Woods Hole Museum archives, by Betty Eaton.

structed. In Falmouth, all these mills were in the east end, where the glaciers' melt-water channels left long valleys and watercourses flowing out to sea. Wherever there was enough elevation a dam was built to power a mill.

One of the earliest types of woolen mill was a fulling mill. When cloth came off the looms on the farms it was a fairly loose weave and was carried to the mill where it was wetted and pounded with fulling mallets which simultaneously cleaned, shrank, and "felted," making a tighter, denser fabric. Mr. Shubael Lawrence built a fulling mill as early as 1788 on the Coonamessett River just upstream from the present intersection of Turner and Sandwich Roads. His son

continued to run the mill until 1840, when he died a wealthy man. He left the then princely sum of \$10,000 to the Falmouth Academy with the provision that the school be called Lawrence Academy, and another \$10,000 to the East End Meeting House.

By 1795 there were three mills along the Coonamessett River, one on the Backus River at the head of Green Pond, and one on the Moonakis. By 1830 they had been joined by one on the Bourne River at the head of Bournes Pond, and another in Waquoit on the Childs River.

In the 1830s the dam on the Moonakis in Waquoit provided water power for a carding mill. Farmers



The flock, lambs in tow, head into the pens, probably at shearing time in June of 1969. Naushon Island. Photo part of the Woods Hole Museum archives, by Betty Eaton.

could take their fleeces there and, leaving some in trade for the service, take away large rolls of perfectly combed out fleeces. "Children were set to gathering thorns to be used in lieu of expensive handwrought pins for fastening the rolls of wool after it had been carded and made ready to be taken home for spinning." The women, saved the huge amount of time required to card by hand, could then proceed to spin and weave. Eventually the mill expanded its abilities to include spinning and weaving. Houses for mill workers were built; two of them are still standing on Martin Road. People of all ages were lured from the farms to jobs that paid a wage.

A few spare records in the Falmouth Historical Society archives of a time book for a woolen mill of 1832-1840 reveal about a dozen people employed, only three of whom seemed to be weaving. The others presumably were carding and spinning.

The Dexter Mill was the first actual "wool manufactory" built in the early 1830s on the lower part of the Coonamessett River, on the site of the first grist mill in town. Here all the steps from carding through to finished woven cloth were performed. In 1845 this

"Pacific Woolen Factory," together with the Waquoit woolen company, employed 31 men and women and produced \$25,000 worth of yarn and cloth. They made the material for "Falmouth jeans and kerseys" worn by Cape Cod fishermen and whalers. In 1876, in an attempt to continue production and stay profitable, The Pacific Factory became a shoddy mill, the largest mill complex in town. Shoddy mills used the fluffy waste from carding and weaving and combined

it with shredded recycled woolen and cotton goods to weave a new inexpensive material. In addition to the main weaving building were a dye house and a waste house where the recycled material was sorted. Houses for the workers were built along John Parker Road.

With all the readily available processing, the farms had con-

tinued to expand their numbers of sheep, providing the mills with more raw material: the woolly fleeces. But in 1854 a town ordinance stopped the practice of letting sheep munch their way along the town roads, requiring them to be fenced in. This marked the end of the huge flocks. However, the Naushon records show that in 1863 the island sold 1,115 fleeces to J. C. Robinson of the Waquoit mill which they called



Sheep on a hillside outlined by a typical stone wall built in the 1700s. Horns, found on both rams and ewes, suggest these are descendants of the Spanish Merino sheep imported during the 1800s. Photo part of the Woods Hole Museum archives, by Betty Eaton.

"Moonakie Factory." Despite the decline in local sheep growing, several mills continued to operate through the 1860s and wove fabric that was used for Civil War uniforms. By the 1880s the only woolen mills still operating were the shoddy mill on the Coonamessett and the yarn mill on the Moonakis. By this time, the mills of New Bedford and Fall River had grown to huge operations and lured away most of the business from the Cape's small mills.

In 1890 all the land holdings of the Pacific Manufacturing Company were sold to the Swift brothers, then of Bourne. They pulled out the center of the dams to lower the water level and converted the former mill ponds to vast cranberry bogs. They used the former mill buildings for equipment storage and seasonal housing for workers. Cranberry growing became "the next big thing."

Still today miles of stone walls run through our woods, standing as mute testimony to the time when huge flocks of sheep roamed these hills, a long and important chapter in Cape Cod's past.

Biographies

Jacki Forbes has written manuals for a computer company as well as managed a group of writers writing about communications software and has done layout and design work including designing book covers for a non-profit in Newton. Since moving to Woods Hole she has designed websites and worked with a number of artistic and cultural groups including the Falmouth



Wool spinning and sheep herding demonstrations as well as hay rides and sheep handling, plus many, many Border Collies introduce children and adults to sheep farming at Falmouth's 88-acre Peterson Farm. Photograph by Janet Chalmers.

Artists' Guild, Falmouth Cultural Council, Falmouth Cultural Alliance, and Committee to Encourage Public Art.

Jennifer Stone Gaines is the Executive Director and Curator of the Woods Hole Historical Collection and Museum. Besides being interested in all things historical, she is also an avid naturalist and teacher as well as librarian, and sailor and racer of Cape Cod Knockabouts. She is the proud mother of two exceptional young women.

John York, of Cataumet, local historian, sailor and salter, has done extensive research on local history and holds an extraordinary amount of knowledge in his head. He was responsible for the operation of the saltworks at Aptuxet Trading Post, as well as being one of the prime movers and builders of the Cataumet Schoolhouse restoration. He is also a boat designer and builder, as well as an avid sailor and Beetle Cat racer.

For more information:

Eel Fishing:

- Cape Cod Wampanoag Cookbook* by Earl Mills, Sr. 2001
The Mysterious Eel by John Waters 1973
Fishes of the Gulf of Maine, by Bigelow and Schroeder, 1964
Consider the Eel by Richard Schweid, 2002
Making a Living Alongshore, Phil Schwind, 1976.
The Book of Falmouth, Mary Lou Smith, ed., 1986

Saltworks:

- Saltworks of Historic Cape Cod*, by William P. Quinn, Parnassus Imprints, 1993
Salt, by Mark Kurlansky, Penguin Books, 2002
 Visit: Aptucxet Trading Post in Bourne where there is a functioning reproduction of a salt works
 Thanks to the Dennis Historical Society for sharing the diary of Samuel Chapman.

Shipbuilding:

- American Fishing*, Albert Cook Church and James B. Connolly, 1940
American Neptune, Vol.2, 4, 9, 14, 17, 22, 48
American Small Sailing Craft, Howard Chapelle, 1951
The Book of Falmouth, Mary Lou Smith, ed., 1986
Live Oaking, Southern timber for Tall Ships, Virginia Steele Wood, 1981
Suckanesset, Theodate Geoffrey (Pseud.), 1928, 1992
They Built Clipper Ships in Their Backyard, Admont G. Clark, 1963
The Yankee Whaler, Clifford W. Ashley, 1926
 Thanks to John York for sharing his rich cargo of knowledge about our maritime heritage.

Whaling:

- The Book of Falmouth*, Mary Lou Smith, ed., 1986
Captain's Best Mate, the Journal of Mary Chipman Lawrence on the Whaler Addison, 1856-1860. Stanton Garner, ed., 1966
History of Cape Cod, Freeman, 1858-1862
Lewis William Eldridge, Whaling Voyage, 1867, 1939
Suckanesset, Theodate Geoffrey, (pseud.), 1928, 1992
Whaling Brides, Whaling Brothers, the Lawrences of Falmouth, Mary Malloy, 1997
Woods Hole Reflections, Mary Lou Smith, ed., 1983
 See also: Whaling exhibit at Falmouth Historical Society
 The ship Lagoda and other exhibits at the New Bedford Whaling Museum, New Bedford, MA

Woolens Industry:

- The Book of Falmouth*, Mary Lou Smith, ed., 1986
History of Cape Cod, Frederick Freeman
A Long Deep Furrow, Three Centuries of Farming in New England, Howard S. Russell, 1976
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Suckanesset, Theodate Geoffrey (Pseud.), 1928, 1992
Technical Summary: Falmouth Communitywide Water-Powered Industrial Resources: Falmouth, Massachusetts, Archeological Reconnaissance Survey, 2006. Submitted to Falmouth Historical Commission by P.A.L. (Public Archeological Laboratory), 1999



Sheep herding at Peterson Farm Day. Photographs on this and next page by Janet Chalmers.

