



STAFF PHOTOS BY ANN RINGWOOD

Becky Warren of Chelmsford works for the Lowell National Historical Park as an interpretive ranger. She supervises a staff of eight in the Boott Cotton Mills Museum, which offers visitors insight into the achievements of the city and East Chelmsford during the Industrial Revolution.

# Walking in their footsteps



# Park ranger discovers East Chelmsford tie to Mill Girls movement

BY TIM KANE  
STAFF WRITER

The park ranger job description Becky Warren responded to in 1984 did not involve clearing trails, leading nature hikes or catering to outdoor campers.

Her park is an urban environment - a vision of the late Sen. Paul Tsongas - where trails are made of concrete, nature co-exists with old mills and canals, and visitors are educated about a city's distinct industrial achievements.

The history of Lowell's industrial triumphs and decline from the 1820s to the 1940s is one in which Warren's own great aunts and uncles forged as Swedish immigrants in search of steady employment.

Now compiling a genealogy that traces her family's work on Few Acres Farm off Boston Road in Chelmsford back to 1699, Warren has discovered many similarities between her childhood aspirations as a farm girl on the family's 65-acre plot of land and the original workers for Lowell's mills. Warren found that several ancestors on her father's side worked in the cotton mills of Lowell during the Industrial Revolution.

With that knowledge, Warren feels a great sense of pride each time she wears her green and gray ranger uniform and broad-rimmed cap covering her red hair. With her family's long farming heritage in mind, Warren works in mill buildings and along canals where her own relatives once made a living.

"I'm taking over for my great aunt who is 90," Warren said of tracing her family's roots. "I spend days with her asking what she remembers of the past. The path I work on, she worked on, and her parents worked on. This is exactly what people did during the Industrial Revolution."

Warren chose her career for two reasons: first as an almost inherent farm-to-factory movement, and second because of her fascination with the origins of Lowell and its many mills, which were once on farm land known as East Chelmsford. Each time she explains to visitors of Lowell's National Historical Park that the mill's forefather's were John Goulding and Jonathan Knowles, who built an East Chelmsford mill in 1813 to spin cotton and wool, she revels in the local connection.

The industrial revolutionists later sold the operation to Thomas Hurd, who installed the first power looms later becoming Middlesex Mills in the young city of Lowell, which was annexed from East Chelmsford in 1826. Lowell became a city 10 years later.

But East Chelmsford was the birthplace of Lowell's industrial period, Warren said. In the early 1800s, East Chelmsford had a number of smaller factories and its own power canal similar to the Merrimack River and its infamous 32-foot drop, which industrialists harnessed to power their riverside factories. Instead of the Merrimack, mill owners used the Concord River in Chelmsford for power. About 50 homes, several inns, five farms - each 40 to 100 acres in size -

and schools composed the small village of East Chelmsford until it was annexed.

Just as Warren made the transition from farm work to employment in the former mills, so did thousands of New Englanders and later immigrants. Mill owners sent recruiters to farms during the "Mill Girls" period from 1820-1850 to hire "Yankee" women.

"Women did carting, spinning and weaving at home on the farm," Warren said of why the workforce was predominantly female.

But the transition to the immigrant workforce, to which Warren's ancestors belonged, occurred in the 1840s. "Mills were exploding and there were not enough workers on the farms," she said.

When Warren joined the Lowell National Historical Park in 1984 as a seasonal employee, the vision of the late Sen. Tsongas was in its infancy. Warren said the park didn't offer trolley and boat tours along the canal - now the most popular attractions - there was no Working People exhibit tracing a time line of the immigrant workforce during Lowell's industrial surge, and the park was only open during the summer.

Today, the federally-funded park employs 100 workers year-round, which grows to 130 with additional seasonal help during the summer.

Each day, the Boott Mills Cotton Museum, in which Warren supervises a staff of eight, offers tours to an average of 350 students plus 25-30 adult visitors. More than 200 tourists come through the mills' doors each day in the summer. Also part of the national park system, the Tsongas Industrial History Center which opened in 1990 attracts about 40,000 students each year.

"The Boott Mills is our showcase," Warren said. "There is no other site in the country that deals with industrial history like it."

On the first floor of the Boott Mills are 100 working weave looms used to spin cotton during Lowell's industrial heyday. They were purchased and reconditioned from a mill in South Carolina in 1992. Warren said the machines were rebuilt, and plans are now being prepared to have all the weave looms producing cloth as tourists pass by. The 100 looms run all

day causing the weave room to vibrate as visitors pass through, and complimentary ear plugs are offered for protection. The vibration can be felt upstairs.

The second floor of the Boott Mills gives visitors a chance to see the time line transition of mill workers from East Chelmsford to Lowell. It reveals how mill owners convinced farmers to sell their land, and that Waltham was the original chosen site of industrialist Francis Cabot Lowell, who went to Europe as a shipping trader, and secretly analyzed the foreign industrial movement underway taking mental notes which he later used to invent the first power looms and the first integrated factory system in America. Warren said the problem Francis Lowell had with Waltham was that it lacked sufficient water power from the Charles River. But Lowell's Merrimack had more than enough water flow to power the mills.

Life size skims that visualize two or three historical settings by shading lights, show images of what it was like before Lowell was turned into a mill city, Warren said. Along the tour, a slideshow presents the debate over an agrarian versus industrial society and the rights of workers and their bosses, adding tension to the country's union movement.

"People want to know what people did in the mills," Warren said beside a glass-encased, three dimensional model showing the layout of the Boott Mills. The "doll-house" is based on actual insurance and architectural documents and plastic worker figurines are positioned on each floor.

"A lot of the machines were built right in Lowell where my great uncle worked as a machinist," she added.

The Boott Mills tour also provides an overview of Lowell's industrial decline in the late 1920s, with the last original mill for cotton fabrication closing in 1956. A few remaining mills hung on until Warren was born in 1961. Research Warren conducted showed that during the decline, and Lowell's transition into the depression before the rest of the country, the city's population remained relatively the same.



Boat tours along the canals that were an integral part of Lowell's industrial surge provide not only an education for thousands of visitors each year, but also a serene urban environment that the late Sen. Paul Tsongas first envisioned.

## Farm girl finds home at Boott Cotton Mills

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"Through my research, we found that the men didn't move their families out," Warren said. "You didn't see a huge population drop when the mills were closing. The men would find work elsewhere."

Warren's Boott Mills tour ends with an interactive video show, allowing visitors to vote on what work in the 21st century will be.

With her associates degree in natural resources and her environmental interpretation bachelor's degree from UMass-Amherst,

Warren feels comfortable with her chosen career. She also serves as president of the Chelmsford Land Conservation Trust.

"As a kid, my first dream was farming," Warren said. "But reality was that farming was not going to make it."

"I went to school to do what I'm doing now," Warren said. "When we call ourselves interpretive rangers, everyone wants to know what foreign languages we speak. But a picture or painting can't tell the story. I tell the story the resources can't tell themselves."