

Cultural Resources

▶ Discovering New Jersey's Transportation Past
A Publication of the New Jersey Department of Transportation

Digest

Acting Governor Richard J. Codey

July 2005

Commissioner Jack Lettiere

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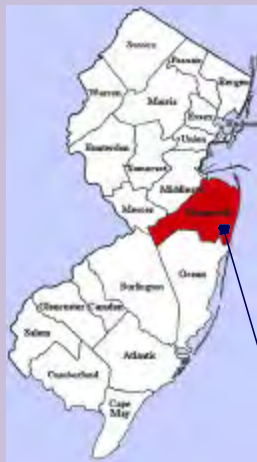
howell township
monmouth county

>resource types:

archaeological

>action:

data recovery



Howell Township
Monmouth County

The *Cultural Resources Digest*, published by the New Jersey Department of Transportation, summarizes information from professional studies in archaeology, history and historic architecture conducted during the development of transportation projects. Visit us at <http://www.state.nj.us/transportation/works/environment/>

The Lower Squankum Mill Site: Rise and Fall of a 19th-Century Agricultural Enterprise



This early postcard view shows the Lower Squankum mill, located along Lakewood-Farmingdale Road in Howell Township. The large building on the roadside held the gristmill; the smaller addition visible behind the trees at the right of the photograph is the later sawmill [Source: New Jersey Department of Transportation].

The placid pond flows silently, its current barely detectable until it draws nearer the head race of the Lower Squankum mill, whose wood framed edifice looms to the southeast of Lakewood-Farmingdale Road. The mill rises above the raceway, which sends the rushing water through the flumes and into the turbines that power the grinding and sawing mills, before exiting into the tail race that allows it to flow back to its ancient course, the Manasquan River.

The mills at Lower Squankum operated for well over 100 years in a number of capacities, perpetually affected by the ebb and flow of economic, social and technological tides, a significant agricultural pro-

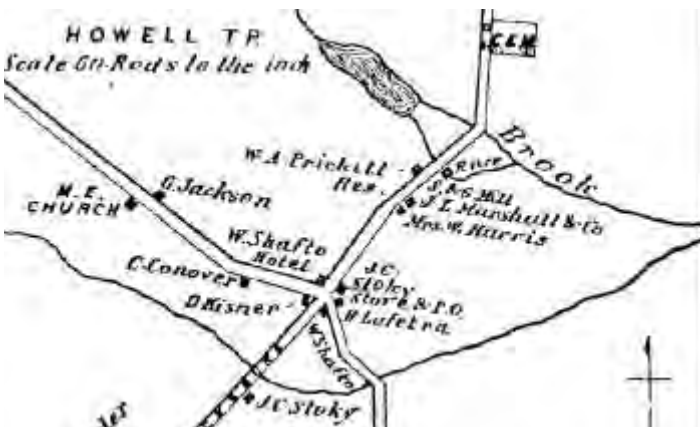
cessing enterprise that evolved and operated throughout the 19th century. As was the case in countless other communities, the mills played a central role in the economy of the surrounding area.

Decades after its fiery demise in the first years of the 20th century, the Lower Squankum mill site would reveal its long held secrets before becoming part of a highway interchange. The site proved to hold key elements in a larger story that would provide clues as to the ever-changing nature of American industry, and to the transformation of Lower Squankum from an isolated rural village to an integral part of the metropolitan regional economy.

The Mills at Lower Squankum

Originally constructed as a gristmill, the Lower Squankum mills were typical of local milling operations found throughout New Jersey. Custom mills, such as this one, ground grain for nearby farmers, who paid a fee for the service (often a fraction of the grain they brought to the mill). The original owner of the gristmill at Lower Squankum was Solomon Wardell, who held a considerable amount of property in Howell Township along the Manasquan River. Wardell settled in the area of Lower Squankum during the late 18th century, and in 1779 purchased a tract of land that included the future site of the grist- and sawmills and a tavern. Although there is no evidence to indicate that either the gristmill or the tavern had been erected by the date of this transaction, both existed by 1803 as they are mentioned in Solomon Wardell's will.

Early on, the Lower Squankum mills were an enterprise fraught with instability, evident in the continually changing ownership, a condition that would plague the facility throughout its history. This was a fairly typical practice for milling operations, as the initial construction and maintenance of mills required substantial amounts of capital. Few people had sufficient funds with which to operate a business, usually leading to heavy indebtedness of mill concerns in the form of one or more mortgages. Financial reversals often led to a foreclosure on the property and the sale of mills at public auction. Since the new owner assumed all financial obligations, this usually doomed the operations to continue this pattern of financial instability and repeated foreclosure.



The Beers 1873 Atlas of Monmouth County depicts the Lower Squankum mills as being an "S & G Mill" (saw and grist mill). Half-owner John Marshall's house is next-door to the south [Source: New Jersey Department of Transportation].

One method to circumvent the cycle of ownership turnover was to attract more capital into the concern by taking on one or more partners, which occurred extensively at the Lower Squankum mills during the mid-19th century. Despite the expanded financial resources of multiple investors, this was often insufficient to keep small milling operations such as those at Lower Squankum in business. Although this pattern of multiple ownership seems to imply an unstable local economy, it could well be that this was inherent in the conduct of 19th-century small business.

A sawmill was added to the Lower Squankum gristmill around 1866 by then-owner Charles Hulit. The property changed hands a few times more before it was sold outright to John Marshall in 1873. Marshall owned it for only four months, selling it to former part-owner William Prickett, who held a large tract of property across Lakewood-Farmingdale Road (County Route 547).

In April of 1894, George Warner, William Prickett's father-in-law and part-owner of the Lower Squankum mills, died and passed his land, then known as Mill Farms, to his daughter Elizabeth Prickett. It was during this period that William Prickett converted his mill complex into a cannery. It is not clear at this time whether he continued to operate the grist- and sawmills. The canning concern, which used blue glass Mason jars, likely processed the vast tomato and vegetable crops from the extensive surrounding farms.

The cannery continued to operate until 1920, when the old frame mill was utterly destroyed by fire. The Lower Squankum mills were never rebuilt and the ruins were left to disintegrate, until the State of New Jersey acquired the property, eventually filling and grading the mill site for use as a fishermen's parking lot.

Archaeological Fieldwork

The proposed construction of Interstate 195 necessitated the realignment of County Route 547, impacting the Lower Squankum mill site. The first task was to examine the whole mill system; in doing so, the archaeology team walked over the area noting the elements remaining from the mill complex: the mill buildings, raceways, dam and pond. After walk-

ing over the site and noting some features based upon comparisons with other mill systems in the region, the archaeologists cleared the site of its thick blanket of weeds, brush and dead trees. Surface remains were then recorded and mapped.

Three types of archaeological evidence were recovered: (1) the remains of the hydropower system; (2) the foundations of the mill buildings; and (3) the artifacts, such as tools and other mill equipment. The remains show that both mills derived waterpower from the same shared turbine pit, the sawmill on the north and the gristmill on the south.

The turbine pit held the turbine floor, and also contained the foundations and parts of the framing. Water was brought to the mill in the headrace, at the end of which was a penstock with two gates. These gates, when opened, allowed water to flow into two separate flumes, one leading to the sawmill's turbine on the north side and the other to the gristmill's two turbines. The penstock was no longer present, having been obliterated during 20th-century road and bridge building operations. The flumes were still recognizable at the time of the excavation.

The power-producing mechanism lay at the very heart of the mills and, because it was set deep in the ground, was found to be largely intact. The lowest part of the deeply buried hydropower system was waterlogged, a condition that is excellent for the preservation of organic materials (in this case the wood that formed the mill structure). Consequently, the wooden floors and framing at Lower Squankum were sufficiently intact to allow the identification of the tree species from which they were cut. The framing of the turbine pit was white oak and its flooring was southern yellow



Archaeologists standing in the turbine pit following the excavation of the Lower Squankum mill site [Source: New Jersey Department of Transportation].

pine; the only other species of wood identified in the sample was a hand-dressed section of spruce.

Interpretation of the site was based on excavated evidence, as well as photographs, maps and other documentary materials, all of which suggested that the mills had stood close to the present watercourse and may even have straddled it in some way. Attention focused on a 37-foot-wide pool between the excavated stone foundation walls. Once the pool was pumped out it became evident that it contained major site remains: mixed debris from the building's destruction and elements of the original bottom portions of the mill.

On top of the pile was the debris that had fallen into the turbine pit after the 1920 fire, various charred remains of the frame structure, as well as a wide assortment of tools, gearing and equipment that had hung in the mill. Under the debris, mud and silt covered the turbine floor and some of the mill framing, along with the remains of one of the mills' turbines.

Portions of three millstones were found at the Lower Squankum site; one lay above the turbine floor of the mill among the slumped soil and burned timbers. It was assumed that these stones fell from the grinding floor above when the wood frame structure collapsed during the fire, a grim reminder of the ultimate fate of the Lower Squankum mill. Details from the investigation as well as information gathered from known mill sites were then used to create a conjectural set of architectural drawings of the construction and layout of the mill.



Site map of the Lower Squankum mill site (center) located adjacent to the Manasquan River [Source: New Jersey Department of Transportation].

Project: Interstate 195, Sections 6C and 7A
Location: Howell Township, Monmouth County
Date: Fall 1981
Consultant: Historic Conservation & Interpretation, Inc., 115 Route 519, Newton, NJ 07860

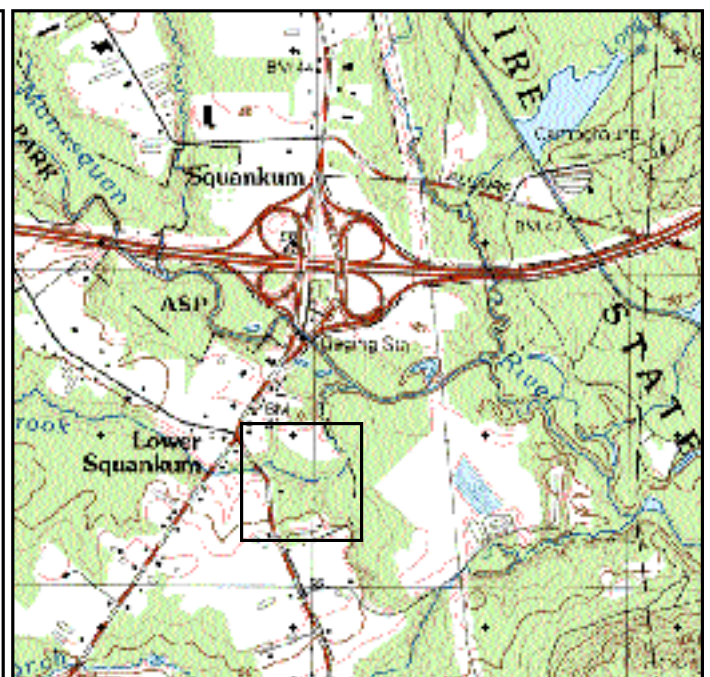
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Additional information on transportation projects and historic preservation is available from the Division of Environmental Resources, New Jersey Department of Transportation (<http://www.state.nj.us/transportation/works/environment/overview.htm>), the Federal Highway Administration (<http://www.fhwa.dot.gov/environment/archaeology/index.htm>), the New Jersey Historic Preservation Office (<http://www.state.nj.us/dep/hpo/2protection/njrreview.htm>), and the Advisory Council on Historic Preservation (<http://www.achp.gov/work106.html>).



Project vicinity map



Area of detail

New Jersey Travel and Tourism - Commerce & Economic Growth Commission

United States Geological Survey 1:24,000