

MHC Reconnaissance Survey Town Report

WARREN

Report Date: 1984

Associated Regional Report: Central Massachusetts

Reconnaissance Survey Town Reports, produced for MHC's Statewide Reconnaissance Survey between 1979 and 1987, introduce the historical development of each of the Commonwealth's municipalities. Each report begins with an historic overview, a description of topography, and political boundaries. For the purposes of the survey, the historic period has been subdivided into seven periods: Contact (1500–1620), Plantation (1620–1675), Colonial (1675–1775), Federal (1775–1830), Early Industrial (1830–1870), Late Industrial (1870–1915), and Early Modern (1915–1940/55). Each report concludes with survey observations that evaluate the town's existing historic properties inventory and highlight significant historic buildings, settlement patterns, and present threats to these resources. A bibliography lists key secondary resources.

Town reports are designed for use together with a series of town maps that demarcate settlement patterns, transportation corridors and industrial sites for each historic period. These maps are in the form of color-coded, polyester overlays to the USGS topographic base map for each town on file and available for consultation at MHC. For further information on the organization and preparation of town reports, readers should contact MHC.

Users should keep in mind that these reports are now two decades or more old. The information they contain, including assessments of existing knowledge, planning recommendations, understanding of local development, and bibliographic references all date to the time they were written. In some cases, information on certain topics was not completed. No attempt has been made to update this information.

Electronic text was not available for digital capture, and as a result most of the reports have been scanned as PDF files. While all have been processed with optical character recognition, there will inevitably be some character recognition errors.

The activity that is the subject of the MHC Reconnaissance Survey Town Report has been financed in part with Federal funds from the National Park Service, U.S. Department of the Interior. However, the contents and opinions do not necessarily reflect the views or policies of the Department of the Interior. This program receives Federal financial assistance for identification and protection of historic properties. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, as amended, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, disability or age in its federally assisted programs. If you believe you have been discriminated against in any program, activity or facility as described above, or if you desire further information please write to: Office of Equal Opportunity, National Park Service, 1849 C Street, N.W., Washington, D.C., 20240.



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MHC RECONNAISSANCE SURVEY REPORT

DATE: 1984

COMMUNITY: Warren

I. TOPOGRAPHY

The town of Warren lies in the extreme southwest corner of Worcester County. A north-south range of uneven, stony hills covers the western half of the town, with elevations generally between 700 and 1,000 feet above sea level. The narrow, steep-sided valley of the Quaboag River cuts through this range in an east-west direction, joined at several points by streams which enter it from the north and south. The Quaboag falls more than 40 feet to the mile through Warren and, together with the several other streams, provided many adequate sites for water-powered industry. In the eastern half of the town, the topography is not quite as broken, though several hills rise to more than 1,000 feet above sea level.

The two topographic zones also indicate two different belts of soil types. The eastern half of the town is dominated by Brookfield series soils, which extend north from Brimfield to Oakham and Hubbardston. Brookfield loam predominates on the broad hilltops and plains, while Brookfield stony loam occupies the hillsides. The former type was largely cultivated for hay and grains while the latter, because of its stony nature, was left in permanent pasture.

II. POLITICAL BOUNDARIES

Established as the town of Western, from parts of the towns of Brimfield and Brookfield, and part of Kingsfield Parish (later Palmer), in 1742. Parts annexed to Ware in 1823, to Palmer in 1831. Name changed to Warren in 1834.

III. HISTORIC OVERVIEW

Industrial and agricultural town on the Quaboag River corridor, with documented native sites in the eastern part of town, probably related to seasonal fishing at Quaboag Falls. First European settlement by ca. 1730 as peripheral area of Brookfield, Brimfield, and Kingsfield Parish, with first meetinghouse site established south of the Quaboag River by 1742. Garrisoned community, with reputed site of frontier fort during French and Indian War. Dispersed 18th century agricultural settlement, with small-scale industrial activity on the Quaboag River. Late 18th century shift of meetinghouse site to Quaboag corridor, with subsequent early 19th century development of small commercial/mixed industrial village at Warren Center. Local industrial growth stimulated by 1839 Western Railroad connection. Mid-19th century development of West Warren as cotton textile manufacturing focus. Late 19th and early 20th century economic vitality of Warren Center sustained by machine products and woolen textile industries. Although diversified, the town suffers with

the decline of textile industries. Warren Center retains intact late 19th century commercial/industrial district with landmark railroad station. Both Warren Center and West Warren retain much of the fabric of 19th century industrial development, including a variety of worker housing forms. Many significant agricultural landscapes also remain, most notably on Coy's Hill Road and East Street.

IV. CONTACT PERIOD (1500-1620)

A. Transportation Routes

Narrow Quaboag River corridor through steep highlands, with focus at falls site. Main east-west trail north of river conjectured as Old West Brookfield Road-Main Street-Old West Warren Road-Ware Road. East-west trail south of river inferred as along contours from West Brookfield to Boston Road, then southwest to Reed Street. Alternate southwest upland trail conjectured on Brimfield Road-Crouch Road-Santo Road-Smith Road. Southeast trail probably Southbridge Road, with east branch an Bragg Road, and possible west loop along Tufts Brook on Keyes Road to Brimfield Road.

B. Settlement Pattern

The area now Warren lies to the west of Squabaug, the "red watering place," the home of the Quaboag group of Nipmucks. Within its borders, in the east, the Naultaug Brook has been a rich collector's area, yielding artifacts from Early and Late Archaic, as well as Late Woodland cultures. Tufts, Sullivan, Cheney, and O'Neil brooks, as well as the Quaboag River, are probable locations for period sites. These would be visited by small groups for short durations from the "base camp" in the Brookfields to the east.

C. Subsistence Pattern

This area was exploited on a seasonal basis from the base villages to the east, with fishing sites expected along the water sources, and hunting in the uplands adjacent, by small family and task groups.

V. PLANTATION PERIOD (1620-1675)

A. Transportation Routes

Contact period trails continue in use.

B. Settlement Pattern

The area now Warren was on the western border of the six-mile grant to Ipswich petitioners of 1660. The focus of that settlement was to the east on Foster's Hill in West Brookfield and it is doubtful that colonials had much impact during their brief stay before the town was destroyed during King Philip's War.

C. Subsistence Pattern

The area continued to be exploited by Quaboags with interruption and reduction due to inter-tribal warfare and some interaction with colonials.

VI. COLONIAL PERIOD (1675-1775)

A. Transportation Routes

The main native trails are improved as roadways from Brookfield west along the Quaboag River corridor, and southwest to Springfield. The 1743 Post Road from Boston to Springfield south of the Quaboag River bypasses the meetinghouse site (Boston Road-Brimfield Road-abandoned route-Reed Street) and supplants an earlier route north of the Quaboag River (Old West Brookfield Road). A second major route is the branch northwest to Northampton north of the Quaboag River (Boston Road-Old West Warren Road-Ware Road). A third major route is the road from South Brookfield to Brimfield across the southeast corner of town (Brimfield-Brookfield Road). In addition, a radial network of local roads connect dispersed upland farms to the Quaboag corridor and meetinghouse center.

B. Population

Few figures are available for the town before 1765, when the town's population equaled 583, expanding to 827 by 1776. The town called its first minister in 1744, and provided for schools a year later.

C. Settlement Pattern

Brookfield's six-mile grant was expanded to eight miles in 1718. The first settlers in this area did not come until 1731, but within ten years agitation for independent town status had begun. With incorporation, the remote eastern sections of the adjacent Hampshire County towns, Kingsfield Parish, or the Elbows, in the north and Brimfield to the south, contributed sections, and the meetinghouse was located in the geographic center, on a knap near Comey Hill. The town's residents lived on dispersed farmsteads.

D. Economic Base

Like most of the towns located in southern Worcester County reported in the 1771 Valuation, Warren is classified by Pruitt as an Egalitarian Farm Community. While corn production and agrarian prosperity are low, so is agrarian poverty; propertylessness is moderate, consistent with similar ratings of community wealth and commercial development. The Quaboag provided saw and grist mill sites for the area, at the Center by 1720, and also at West Warren.

E. Architecture

Residential: The most common house type appears to have been the center chimney, five-bay plan of either one or two stories. Ten are recorded in the inventory. These lie primarily outside the

villages of Warren and West Warren. One two-story, end chimney (single-pile) house was recorded. Three-bay plans are recorded as pre-dating 1750 with five-bay plans being common thereafter.

Institutional: The first meetinghouse was built in 1743 and measured 45 x 35 feet.

The first school building measured 20 x 17 feet and was built in 1745.

Industrial: A grist mill was located near Route 67 and the West Brookfield town line in 1764. A mid-19th century building now occupies the site.

VII. FEDERAL PERIOD (1775-1830)

A. Transportation Routes

Colonial roads continue in use. The First Massachusetts Turnpike is incorporated in 1796 to provide an improved route along the Quaboag River corridor segment of the heavily travelled route from Boston to New York. The road commences north of the Quaboag River at the Upper Mills bridge, and follows the river valley southwest to Palmer (Boston Road-Old West Warren Road-Boston Road).

B. Population

The town's population continued to grow throughout this period from 827 in 1776 to 1,189 in 1830. The first church remained Trinitarian in theology. The Universalists formed a society in 1815, built a church in the south in 1821, and met together through 1833. The town formed a Thief Detecting Society in 1810, and had established a town farm by 1818.

C. Settlement Pattern

Dispersed agricultural settlement continues, with increasing concentration of industrial activities on the Quaboag River, where a small village settlement develops at Warren Center. The location of the second Congregational meetinghouse (1797) is moved north to the Post Road corridor, on the south side of the Quaboag River crossing. Industrial development intensifies in this area on the north side of the river, including a powder mill (1812), textile manufacturing after 1815, and a forge to the west. A secondary industrial focus (later West Warren) is initiated with the establishment of a scythe factory further west on the Quaboag River. Outside the main development corridor, a Universalist church (1821) is built in the extreme southeast corner of town, on the Brimfield-Brookfield Road.

D. Economic Base

Warren's economy during the late 18th century and first quarter of the 19th century was largely founded on an agricultural base. In the 1780s a comparatively small portion of the town's area was unimproved or woodlot, 42%, while an additional 14.2% classed as

unimprovable. A high percentage, 5.8%, was under tillage, with a very high percentage, 20.5%, in mowing and meadow, and 15.6% in pasturage.

By the 1820s, improved land had increased considerably. Grains, hay, and livestock were the major products of the town's farms; the majority of the town's population resided and worked on farms. Early manufacturing and water-powered milling were located in the town center and at West Warren. By 1793, two grist mills, a sawmill, scythe mill, fulling mill, and forge were distributed between the two sites along the Quaboag River.

Further development proceeded slowly. In 1800, iron works were established in the center village, followed by a powder mill in 1812, a cotton mill in 1815, and a woolen mill in 1816. Although the powder mill exploded in 1826 and the cotton mill failed during the 1820s, the center village by 1830 contained two gristmills, a sawmill, two cotton and woolen factories, and an iron works and blacksmith shop. In West Warren manufacturing was begun with the establishment of a scythe manufactory in 1812 and by 1830 a new small mill village was emerging around the Western Cotton Mills. Other industries established by 1832 included the manufacture of thick shoes and brogans, largely for the Southern trade, and wool, fur, and palm-leaf hat-making. At the end of the period, non-agricultural employment was provided by textile manufacturing (44 operatives), shoemaking (60 employees), scythe-making (six men), and hat-making (40 females, one male).

E. Architecture

Residential: A significant number of buildings are recorded for the period, primarily two-story, five-bay structures. Center and double chimney plans appear to have been equally popular. Four rear wall chimney plans were recorded, three with hipped roofs. A relatively small number of one-story center or double chimney plans survive.

Institutional: A second meetinghouse was erected on the common in 1804. A Universalist meetinghouse was built in 1821 at Hodge's Corner in South Warren.

Industrial: Ca. 1812, a frame powder mill was erected and subsequently blew up.

VIII. EARLY INDUSTRIAL PERIOD (1830-1870)

A. Transportation Routes

The Western Railroad (later Boston and Albany) opens service along the Quaboag River corridor in 1839, through Warren Center and West Warren.

B. Population

The growth of population accelerated during this period, expanding from 1,189 in 1830 to 2,625 in 1870, with the largest jump between

1840 and 1850 when the total expanded by nearly 500. A portion of this growth is due to immigration into the town as manufacturing increased in importance. In 1855, the proportion of foreign-born within the town had already reached 11.5%, and more than doubled to 24% twenty years later. The Irish were most significant in numbers, followed by French Canadians and small numbers of English. At the close of the period, a second Congregational society was formed to serve the expanding community at West Warren (1865). The Universalists reorganized in 1836 and similarly, Arminian Methodists soon gathered followers, forming a society in 1852. In 1842 the Quaboag Seminary began operating in the town, and after several years of discussion was purchased in 1856 for use as a town high school and graded school; the districts were abolished in 1869.

C. Settlement Pattern

Intensified industrial development occurs on the Quaboag River corridor, further stimulated by the 1839 Western Railroad connection. Warren Center continues to grow as a commercial/industrial focus, and West Warren emerges as a textile manufacturing center.

At Warren Center, development continues on both sides of the Quaboag River. On the north, the woolen mill complex is rebuilt after an 1850 fire, and a brick addition is made in 1864. The cotton manufacturing focus continues at the Falls/Main Street river crossing. A number of shoe factories are located along the Main Street between the woolen and cotton mills. On the north side of Main Street, a small institutional focus develops just west of the crossing, with the Second Universalist Church (1837), and the Quaboag Seminary (1842), which the town buys for a town house/school in 1856. Residential development, primarily worker cottages, occurs along Main Street, and north on Furnace Hill and Quaboag Streets.

South of the river, the meetinghouse is moved off to the north side of the common and remodelled (1837) as the railroad is built along the south side of the common, with a depot at the southwest corner. A small commercial center develops at the depot/Main Street river crossing focus. The Methodist Episcopal Church (1863) is built just southeast of this, across the railroad tracks. Industrial development south of the railroad corridor occurs with the establishment of the Knowles Steam Pump Works in the early 1860s. New, high income residential clusters develop on Bacon Street north of the common, and southwest along Maple Street (Brimfield Road) toward Pine Grove Cemetery. Residential development, mostly worker cottages, occurs east of the pump works along Crescent Street and southeast on Southbridge Road.

Development of the western Quaboag River power sites leads to the growth of West Warren as a factory village after the incorporation of the West Warren Cotton Mills in 1856, and its expansion along the Quaboag corridor in the 1850s and 1860s. A worker boardinghouse/duplex tenement cluster is built south of the river, east of the main mill, while the agent's house (1855) overlooks

the mills from a hill north of the river. Residential construction occurs along Main Street west of the mills, mostly on the north side. The West Warren Congregational Church is built in 1869 in this area on Chapel Street.

D. Economic Base

Stimulated by the completion of the Western Railroad in 1840, Warren's economy became increasingly dominated by the expanding manufacturing sector. As the population more than doubled during this period, the value of goods produced increased from \$66,000 in 1832 to \$632,000 in 1865; manufacturing employment rose from 150 to 368.

Most growth came in the textile industry which, taking advantage of the excellent power provided by the Quaboag River (a fall of 43 feet per mile west of Warren Center), expanded during the 1850s and 1860s with the establishment of the Warren Cotton Mills in West Warren (1854). By 1864, the company built and owned 34 tenement houses, and a second mill was added in 1866. West Warren also contained a batting mill and tape factory.

The manufacture of edge tools and textile machinery for the new mills was introduced during the 1850s. The A. W. Crossman & Sons tool factory produced chisels, gouges, drawing knives, scythes, and planes. This firm and the Warren Cotton Mills were largely responsible for the growth and development of West Warren.

In Warren Center, development occurred at the upper and lower falls on the Quaboag and on Wigwam Brook. Though textile manufacturing was not as important here as at West Warren, two mills, the Sibley Woolen Mill at the lower privilege and Lucius Knowles' cotton mill at the upper privilege, were operated in partnership by Knowles and Sibley who come to Warren from Spencer in 1849. An inventive mechanic, Knowles received nearly 40 patents between 1856 and 1877. He turned to the production of steam pumps in the late 1850s and in 1862 moved to a mill on Wigwam Brook. By 1868, the mill was enlarged and a foundry was opened. Knowles also began producing looms of his own invention for weaving tapes, binding, ribbons, and other narrow fabrics. In 1863 he patented an open shed loom for weaving checks and figured goods. The great success of this loom led him to move the loom works to Worcester in 1866. Knowles maintained his interests in the warp mill and in the pump works, which by 1872 employed 102 men.

Boot and shoemaking were concentrated in Warren Center during this period. Virtually wiped out by the 1837 Panic, the industry remained minor through the 1840s and 1850s, employing under 20 persons and valued at less than \$5,000. During and after the Civil War, the industry expanded rapidly; by 1875 shops and factories employed 67 persons and produced heavy boots worth nearly \$290,000. The Civil War aided the expansion of the woolen and edge tool industries through government contracts for uniforms and small tools.

During the late 1830s, Warren was the home of William Howe, who began to manufacture Howe truss bridges at a site in Warren Center near Wigwam Brook. Howe invented the wood and iron Howe truss bridge, widely used for railroad bridges until replaced by the all-iron bridges of the late 19th century.

The early introduction of the railroad hastened Warren's development of dairy farming. By 1855, the town's farms had 1,136 milk cows. Production in the 1840s centered on butter and cheese; in 1845, 278,000 lbs. of cheese and 13,000 lbs. of butter were marketed, and during the 1860s two cheese factories were established. The sale of whole milk reached 172,000 gallons in 1855 and increased to 295,000 gallons in 1875. The increase in cattle holdings was accompanied by an increase in the amount of land used for pasture and mowing. Cleared land reached a peak in the 1850s. This also coincided with the peak in the harvesting of Warren's forests for building supplies and fuel for the railroad and the town's expansion.

The increased attention to dairying and cattle-raising led to a reduction not only in woodland but also in the acreage devoted to corn, other grains, and vegetables. The amount of land devoted to potatoes, corn, rye, and oats fell by one half between 1845 and 1865.

E. Architecture

Residential: Based on survivals, the most common house form for the period is the gable end, side-passage plan of both one and two stories. Scattered examples of double chimney forms and a very few center chimney houses are recorded. One gable end, five-bay, center entry, single story Greek Revival house was noted. One double chimney brick house and one gable end brick house are recorded from the first half of the period. Two double chimney, center entry, two-story Second Empire houses are noted.

Dating from the second and third quarter of the century are workers' houses, primarily duplexes in West Warren.

Institutional: The 1804 meetinghouse was moved to the site of the present Federated Church in 1837 and given a Greek Revival fanlight. Buildings were erected at the newly founded Quaboag Seminary ca. 1842 and were subsequently purchased by the town in 1856. No evidence of Seminary or buildings on 1870 atlas. A Congregational meetinghouse was built in 1869 following the organization of a society in West Warren in 1865.

A schoolhouse had been built in the Center by 1839. The 1846 #9 district school, a typical frame, gabled structure, survives as a residence.

Commercial: Some early commercial buildings survive, including a much altered ca. 1835 gable end store, a gable end store/assembly hall with bracketed cornice, the Bosworth Block, a two-story, Second Empire building with the mansard missing (fire, 1940s), and the mid-century, Greek Revival Union Store and Hall with later

Italianate and Second Empire additions. The first depot displayed Greek Revival influences and a second building revealed Gothic Revival details.

Industrial: Comin's Saw Mill (1857-70) is a two-story frame, gabled building now used for storage. The Ramsdell Boot Shop built in 1864 is a two-story brick structure with corbelling and a mansard roof. A yellow brick false front was added ca. 1900. The four-story, frame B. A. Tripp Boot Factory was built between 1868 and 1870. Warren Cotton Mill #2 (the oldest standing), a four-story, brick, gabled building with segmentally arched windows and pilasters, was built in 1866.

IX. LATE INDUSTRIAL PERIOD (1870-1915)

A. Transportation Routes

In the 1890s, electric street railway service is initiated from West Warren to the east along Main Street to Warren Center, and then east on East Main Street to West Brookfield Center.

B. Population

The pattern of growth culminates during this period, when the total expands from 2,625 in 1870 to 4,681 in 1890, its highest figure to date. Thereafter, the town experiences population decline, to 4,188 in 1910, and only a brief recovery to 4,268 in 1915. The foreign-born within the population continued to expand from 24% in 1870 to its highest point of 32.7% in 1905 before a parallel decline sets in. The Irish remain important throughout the 19th century, while the French Canadians increase greatly to outnumber them by 1895. In the early years of the 20th century, the Poles come in rapidly and in large numbers, and by 1915 outnumber the Canadians by a factor of two, and the Irish by four. The expansion of manufacturing accounts for these shifts, as this type of employment outnumbered agriculture by more than two to one in 1875, by more than four to one in 1905, and six to one in 1915, just among males. In addition, large numbers of women were working outside the home in manufacturing, and accounting for approximately one-third of the total of that type of employment.

With this large shift in the population came changes in the town's cultural institutions. A second Methodist society was formed in West Warren. Most significant, however, was the formation of the Roman Catholic parish in 1872. The Agassiz Association held grammar and high school classes, and workers could attend evening schools. A free and public library was established in 1876.

C. Settlement Pattern

Industrial related growth continues in Warren Center and West Warren, with little development outside these established centers. North of the Quaboag in Warren Center, St. Paul's Catholic church (1896) is added to the established institutional cluster, east of the Universalist Church. New residential

development occurs north on Quaboag, School, and Prospect Streets. A second residential area is established north of the woolen mills (Moore/Lombard Avenues).

South of the Quaboag, major additions are made to the common area commercial/institutional district. The Congregational Church is replaced in 1875 after it burns, and a new, brick town hall is built on the west side of the common in 1878. A stone library is added to the north in 1889.

Brick commercial blocks are built in 1875 and 1886, and a new, stone railroad station is built in the 1890s. Industrial development takes place south of the depot (Warren Steam Pump Company after 1897) and east along the railroad corridor. Residential expansion continues into the 1890s: north along River Street, east on Main Street (including a group of three-decker tenements in the 1890s), southeast between East and Southbridge Streets to Washington Street, south beyond Nelson Street to Pine Street with linear development on South Street, and west in the area between High, Bridge and Maple Streets beyond Pine Grove Cemetery.

West Warren continues to grow as a textile manufacturing center, with the major additions the Warren Cotton Mill #3 south of School Street, and Mill #4 to the east, south of Main Street. St. Thomas Catholic Church is built on North Street in 1872, and a Methodist church is built in 1879. Worker housing continues to be built, with a cluster of ca. 1890 brick tenement rows east of the #3 mill, and housing north of the #4 mill on Main. In addition, worker residences are built on Chapel and School north of Main, and across the river on Brimfield Road.

D. Economic Base

Warren's growth was sustained only through the 1880s, as population peaked in the early 1890s at more than 4,600, followed by a decline which continued almost uninterrupted into the 1960s. Most of the growth during the 1880s occurred in the textile industry and in the manufacture of tools and machinery.

By 1883 the Warren Cotton Mills Co. in West Warren had built four mills: #1, rebuilt 1880, #2 built 1860, #3 built 1874, #4 built 1883. By 1885, the four mills employed 900 in the production of a variety of cotton goods. A second major expansion occurred in 1912 when the weaving mill, office, cloth room, and storehouse were built and the roof of the #1 mill was raised. The company was purchased by the Thorndike Co. of Palmer in 1898, which continued production through the period. In Warren Center, the Sibley Woolen Mill continued to produce woolen goods, employing up to 200 operatives. A fire in 1893 destroyed the mill, but a new four-story brick mill was built and called the "Fanny Jane" mill after the wife of one of the owners. The value of textiles produced exceeded one million dollars by the late 1880s and increased further by the end of the period.

Similar growth occurred in the machine and tool industries. Knowles Steam Pump Works, sold to George F. Blake Mfg. Co. of Boston in 1879 after Knowles' loom works became more important, continued to expand. In 1874, the company employed 150 men; by 1886, after a new brick machine shop was built, 300 men were employed and production exceeded \$400,000. As a result of this continued growth and a lack of room for expansion, the company was moved to East Cambridge in 1897. In an attempt to counteract this serious blow to Warren's economy, the Warren Steam Pump Co. was successfully founded. Edge tool manufacturing continued until 1911, when fire destroyed the Crossman factory.

Shoemaking ended by the late 1880s, as all four of the town's factories were closed during the depression in the industry in the early 1880s. More than 150 employees lost their jobs. Other industries in Warren during the late 19th and early 20th centuries included a corset factory, several clothing shops, a manufactory of carriages and wagons, and an ink manufactory. By 1905, the town contained 55 trading and 14 manufacturing establishments which employed 1,143 persons and produced goods worth \$1,735,536.

Agricultural production increased in nearly every category but grains; the value of agricultural goods reached nearly \$300,000 by 1915. More than one third of this total came from dairying. In 1905 the returns from 111 farms showed more than 660,000 gallons of milk were sold, the eighth largest figure in all of Worcester County. The 34 dairy farms nearly equalled the acreage of the 115 mixed agriculture and market gardening farms. By 1905, 3,500 acres were in mowing, 7,800 acres in permanent pasture, 607 acres in crops, 191 acres in orchards, 21 acres in market gardens, and 32 acres in cranberries.

E. Architecture

Residential: The predominant single-family house form appears to have been the two-story, gable end dwelling, generally two bays wide and exhibiting Italianate and Queen Anne trim. Modest two-story "Queen Anne" asymmetrical houses even also popular.

Multi-family housing continued to be built into the first quarter of the 20th century. Two-story, four- and six-bay duplexes, frequently displaying double chimneys, were built throughout the period. A brick row of housing in West Warren is unusual for the attention to period detail, segmental arched windows and patterned brickwork and corbelling.

Institutional: The meetinghouse of 1804 (remodelled in 1837) burned in 1874 and was replaced the following year with the First Congregational (Federated) Church, a gable end frame Victorian Gothic structure with a square side entry tower with spire. The building, which also displays "Stick Style" influences was designed by A. P. Cutting. The West Warren Methodist church, a clipped gable end structure with a center window and side entry (originally inside the bell tower) was constructed in 1879. St. Thomas Roman Catholic Church in West Warren was built; Chickering

and Conrad of Springfield designed the two-story, brick Romanesque St. Paul's Roman Catholic Church in the Center.

Three school buildings are documented from the period. The 1872 Warren Village School is an Italianate gable end structure with an ell, square tower with mansard roof, and brackets. The West School in West Warren of 1888 is a two-story, banded brick edifice with a hipped roof and a central projecting tower, said to be the town's best example of Victorian Gothic (Warren Inventory). the St. Thomas Aquinas School, also in West Warren, is a two-story, Colonial Revival building with a hipped roof and projecting three-bay pedimental pavillion constructed between 1898-1911.

The town hall, a two-story brick Romanesque building of 1879, burned in 1900 and was partially reconstructed in yellow brick by Dwight and Chandler of Boston. The two-story brick fire house (1898-1911) is now vacant.

Commercial: The Ramsdell Hotel of 1886 was originally a three-story, brick, Victorian Gothic structure; a 1940 fire destroyed the third floor and a tower.

The Marcy Block is a two-story brick commercial structure (1875) and the E. J. Wood Block is a three-story brick structure with street level storefront and apartments above. The frame movie theatre has a false front and was erected between 1898 and 1911.

The third depot, built during the 1890s, was designed by Shepley, Rutan and Coolidge and is a granite and brownstone structure with a flared hipped roof.

Industrial: The Warren Cotton and Weaving Mill is a three-story brick building constructed in 1912. An 1880 four-story brick structure with corner tower stands as Warren Mill #1. An early period brick dye house survives. The Knowles Pump and Boiler House (1879) is a one-story brick structure with hipped roof and a cupola.

X. EARLY MODERN PERIOD (1915-1940)

A. Transportation Routes

Main Street/West Main Street through Warren/West Warren is improved early as part of the main auto route between Boston and New York (Route 5, later Route 20), until Route 20 shifts south with the Southwest Cut-off of 1931. In the 1930s, the road south to Brimfield is improved, and with the Main Street becomes part of Route 19. Later in the period, the road through Warren and West Warren to Palmer becomes part of Route 67.

B. Population

The town's population continued to decline during this period, changing rapidly at first as totals dropped from 4,268 in 1915 to 3,467 in 1920, bouncing back to 3,950 in 1925. Thereafter, the drop was gradual, reaching 3,531 in 1940. The foreign-born within

the town dropped significantly from 31.6% in 1915 to 17.7% twenty-five years later. At that time, 15.6% of the town was classified as rural.

C. Settlement Pattern

Some limited industrial expansion occurs during the period, but little major change occurs in the early 20th century settlement patterns. The Warren Woolen Mills is established in 1924 east of Warren Center on the railroad corridor. A weaving mill is added in West Warren in 1912. Some residential infill occurs in Warren Center, with further extension east on Main Street. In West Warren, tenements are built in the A Street area ca. 1918, and some residential extension west on Ware Road occurs during the period.

D. Economic Base

Following World War I, Warren experienced a decade of prosperity before the Crash of 1929 and the following Depression devastated the town's economic base. The Thorndike Company expanded the Warren Cotton Mills plant in West Warren with the construction of an ell to the #1 mill and the carding mill in 1918 and 1919. In 1924, 850 workers were employed to make tickings, shirtings, and denims. The Thorndike Co. went out of business by 1930 and its land, buildings, and tenements were sold at auction in 1933. The #3 and #4 mills were operated by the Ohio Carpet Co., but when fire destroyed the #3 mill about 1938, the company went out of business and the #4 mill was demolished. Similarly, the Sayles and Jenks Woolen Mill closed during the 1930s, and the mill was later used as a large chicken house.

Agriculture continued to move in the directions set before World War I: dairying dominated agricultural production, mixed farming continued to decline, and poultry-raising became more important. Marginal lands were left uncultivated and returned to forest.

E. Architecture

Residential: The most common single-family form is the two-story, two-bay, gable end house occasionally displaying modest Queen Anne or Italianate features. Two-story, asymmetrical plans were also popular.

Multiple-family housing in this period was concentrated in the villages. Two examples of Italianate brick rowhouses (worker related) survive in West Warren. Queen Anne duplexes and a few three-deckers were observed. Two-story, four- and six-bay multi-family dwellings, again related to the mill villages, span the entire period.

Institutional: No significant development observed.

Commercial: No significant development observed.

Industrial: Two structures noted: a 1919 two-story, brick recreation hall and the ca. 1918 one-story, brick Warren Cotton Mills office, both displaying modest Colonial Revival details.

XI. SURVEY OBSERVATIONS

The survey of Warren is well documented and supplemented by a helpful overview.