

Chapter 3

DATA SUMMARY

A. RESULTS OF FIELDWORK – SUMMARY DATA ON 30 MILLS

In September 2012, Principal Investigator Patrick Harshbarger, assisted by Alison Haley, Architectural Historian, and Gianfranco Archimede, Executive Director of the Paterson Historic Preservation Commission, made field visits to the 30 mills on the inventory list. During these visits, notes and photographs were taken to supplement those already collected by Mr. Archimede. Site boundaries were verified against the GIS site maps produced using street address and tax lot/block numbers. Site boundaries were adjusted when conditions on the ground warranted, normally to include a historically associated building or resource, or to remove an unassociated modern resource.

Data collected in the field was compiled and entered into the project's MS-Access database. At the same time, these data were compared with historical documentation, particularly from historic cartographic sources, to assist with the identification of mill names and uses over time, and to date original construction and alterations. The database fields were completed to the greatest extent possible. Fields were left blank only when such data were unavailable or inaccessible, such as for roof systems or foundations when not visible from the street.

An intensive-level survey form with attachments was produced for each mill. The typical form is from 10 to 15 pages and includes details from atlas maps, tax maps and aerial photographs, along with a selection of from 8 to 12 photographs showing general overviews, principal elevations and details.

The intensive-level survey forms are in Appendix C. Readers are referred to the appendix for detailed data on each site including an architectural description, summary history and evaluation of significance. Table 3.1 is a summary list with a brief general description of each mill property, a thumbnail photograph and eligibility recommendation.

B. EVALUATIONS OF SIGNIFICANCE AND INTEGRITY

The information generated by this survey was considered in terms of the criteria of evaluation, the guidelines established for making determinations concerning National Register eligibility, as outlined by the U.S. Department of the Interior, National Register Program in 36 CFR 60.4:

“The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or

C. that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. that have yielded, or may be likely to yield information important in prehistory or history.

Properties which qualify for the National Register, must have significance in one or more “Areas of Significance” that are listed in *National Register Bulletin 16A*.

Ordinarily, cemeteries, birthplaces or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A. a religious property deriving primary significance from architectural or artistic distinction or historical importance; or

B. a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or

C. a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his productive life; or

D. a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or

E. a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

F. a property primarily commemorative in intent of design, age, tradition, or symbolic value has invested it with its own historic significance; or

G. a property achieving significance within the past 50 years if it is of exceptional importance.”

Industrial mills, as a property type, were significant components in the development and evolution of the City of Paterson, as it expanded outward from the Great Falls water-powered district, *circa* 1850 to 1920. During this period, Paterson was one of the nation’s notable industrial cities, highly regarded for its specialty silk and metal trades.

A feature that distinguished Paterson’s mills was their close relationship to the development of the city, intertwining with mixed-use residential and commercial blocks. The outer circles of Paterson beyond the Great Falls did not have an “industrial district,” they were a tightly interwoven sets of neighborhoods interlocked with mills that anchored the city’s geography. Some areas had distinct patterns, like the mills seeking prime real estate along the Erie Railroad corridor or the dyers’ highly prized lots adjacent to the Passaic River, but, in general, industry was found throughout Paterson, even near the most desirable residential locations like Eastside Park. The mills tied Paterson to regional markets and economies in manufacturing and retailing, which played a major role in driving technological innovation, as well as adjustments in

Table 3.1. Summary of Survey Results.





	Property Name	Address	NJHPO Property ID	Date of Construction	Description	Eligibility Recommendation	Photograph
1	Aronsohn Mill	245 10th Avenue	421410068	1908	The Aronsohn Mill is an industrial complex situated on 1.6 acres containing two <i>circa</i> 1908 brick buildings formerly used for silk manufacturing and currently occupied by multiple commercial and industrial tenants. The main building is a four-story, brick and heavy-timber framed mill arranged east to west along 10th Avenue with a boiler house/power plant behind it.	Eligible. The Aronsohn Mill is recommended eligible under Criterion C as a good representative example of classic textile mill architecture with a focus on functionality. In proportion and detail it exhibits the mark of master architect Fred W. Wentworth. The Aronsohn Mill is also recommended eligible under Criterion A for its association with the Strike of 1913 and with working conditions in the silk industry.	 A photograph of the Aronsohn Mill, a long, multi-story brick industrial building with many windows, situated on a street corner.
2	Auger & Simon Silk Dyers	20-40 E 5th Street	-1873802354	circa 1890-1915	The Auger & Simon Silk Dyeing Works is a complex of vernacular industrial buildings that evolved from 1890 to 1915 to house one of Paterson's best known silk dyers and finishers. The works, although now completely interconnected, presents itself as having two historical massings: 1). an approximately 350-ft. long, 2-story, white-stuccoed brick dye house complex facing on 5th Street; 2). a 200-ft. long, 1-story brick dye house with clerestory roof at the corner of Branch and 5th Street. Although historically separated by an alleyway, the buildings are now connected by mid-20th-century in-fill and all have later additions and alterations. Historically, there was also a steam plant and a color room located to the rear of the complex near the Passaic River. These buildings have been razed and replaced by surface parking and an area for semi-trucks to access loading docks to the rear of the complex.	Eligible. The Auger & Simon Dye Works is recommended eligible under Criterion A as important for its association with the pattern of events that led to the development and growth of the silk dyeing industry in Paterson. It was considered one of the first large Passaic River-focused dye works built on previously undeveloped property in the Bunker Hill section of the city, which became known for its dye works. The dye works is recommended eligible under Criterion B for its association with Charles I. Auger and Charles Simon, brothers-in-law, who were leading figures in the organization of the silk dyeing industry, including the formation of the National Silk Dyeing Company.	 A photograph of the Auger & Simon Silk Dyers, a long, white-stuccoed industrial building with multiple large loading docks, situated on a street.
3	Barbour Flax Mills	404-440 Grand Street	-570761910	1877, 1895, 1915	The Barbour Flax Mills are an industrial complex spanning two city blocks totaling 2.5 acres. The site consists of a 1.5-acre, triangular-shaped block and a 1-acre rectangular lot. The triangular block contains a late-19th-century brick mill measuring about 500 ft. along Spring Street, a secondary, 4-story brick mill along Grand Street, and a 350 ft. brick machine and carpenter shop along Prince Street. These three buildings form a quasi-U-shape on the block, creating an interior courtyard off of Prince Street. The rectangular lot consists of a brick warehouse at the southwest corner of Grand Street and Dale Avenue.	Eligible. The Barbour Flax Mills are recommended eligible under Criterion A for their association with the industrial revolution and the trend away from water-powered toward steam-powered mills. Designed by architect E.J.M. Derrick, the Barbour Flax Mills are recommended eligible under Criterion C for their distinctive mill architecture.	 A photograph of the Barbour Flax Mills, a large, multi-story brick industrial building with many windows, situated on a street corner. A sign for "STORAGE" is visible on the side.
4	Barnert Mills	463 Grand Street	69654716	1880	The Barnert Mill is a four-story, brick, industrial complex located at the corner of Grand Street and Dale and Railroad Avenues in downtown Paterson. The complex consists of two principal buildings. The first and larger building, historically known as the Dale Avenue/Grand Street Mill, was completed in 1882. It has a "J-shaped" plan with the bottom of the "J" and main façade facing west on Dale Avenue. The long side of the "J" faces south and is flush with Grand Street. The second and smaller building, historically known as the Railroad Avenue Mill, is located at the northeast corner of the lot with its façade facing east on Railroad Avenue. An alleyway on the south side of the Railroad Avenue mill accesses a courtyard formed between by the rear elevations of the two buildings. According to historic maps and current aerial photography, the courtyard contains a 1-story boiler room and square-plan brick smokestack that are not visible from the street. The boiler room and smokestack were not accessible at the time of this survey.	Eligible. The Barnert Mill is recommended eligible under Criterion A for its association with important trends in the development of Paterson's silk industry, namely as a significant and well-known model for the tenant silk mill. It is eligible under Criterion B for its association with Nathan Barnert, a prominent Paterson businessman and politician, closely associated with the development of this type of tenant silk mill. It is eligible under Criterion C as a significant representative example of textile mill architecture.	 A photograph of the Barnert Mills, a large, multi-story brick industrial building with many windows, situated on a street corner.

Table 3.1. Summary of Survey Results (Continued).




5	C. DeGrado Silk Dyeing Co.	176 E 7th Street	-855428749	1919	The C. De Grado Silk Dyeing Co. mill is a 4-story, 9-bay, 60 x 130 ft., rectangular plan, brick mill at the northwest corner of East 7th and Rye Streets in the Bunker Hill section of Paterson.	Eligible. The C. De Grado Silk Dyeing Co. mill is recommended eligible under Criterion A for its association with the pattern of economic and business development that made Paterson a center of America's silk dyeing industry. It represents one of the family-based models of business development that characterized the industry even into the early 20th century when other corporate models were becoming more dominant. It is eligible under Criterion C as among the city's best surviving examples of an early 20th century, mid-sized textile dyeing mill incorporating period refinements such as reinforced concrete framing and steel sash windows to maximize natural lighting.	
6	Castle Piece Dye & Finishing	90 2nd Avenue	1862225029	1918, 1920	Castle Piece Dye & Finishing is an early 20th century industrial complex consisting of a 1-story brick dye house and a 3-story brick mill fronting on 2nd Street.	Eligible. Castle Piece Dye & Finishing is recommended eligible under Criterion A for association with a locally significant pattern of economic/ business development related to small- to medium-sized silk dyers locating to the Riverside neighborhood in the late 1910s and 1920s. These businesses employed a significant number of workers and contributed to the development of a mixed-use neighborhood. The dye works is recommended eligible under Criterion C as an important representative example of this industrial building type, based on comparison with other similar examples, several of which have been razed and the others significantly altered.	
7	Cooke Locomotive/ALCO	1183 Madison Avenue	1347029195	1888	The Cooke Locomotive Co. Madison Avenue Works is a 3.13-acre site located on the southeast side of Madison Avenue, immediately south of the Madison Avenue/Conrail Bridge. The site consists of an 1888 brick office building, perpendicular to which is a 1-story brick machine shop and an attached wash house.	Eligible. The Cooke Locomotive Works is recommended eligible under Criterion A for its associations with the Paterson locomotive manufacturing industry. It is further recommended eligible under Criterion C as a good representation of classic industrial architecture with a focus on functionality.	
8	Eclipse Mill (J.C. Todd Jute Mill)	11 20th Avenue	1131236190	1873	The Eclipse Mill was built in 1873 as the J.C. Todd jute mill and about 1906 was sold and covered into a silk mill specializing in the weaving of ribbons. The complex is comprised of 1). a 2-story, 5-bay, front-gabled brick mill with monitor roof 2). a 2-story, 5-bay front gabled mill, and 3). a 2-story, 2-bay brick office.	Eligible. The Eclipse Mill, aka J.C. Todd Jute Mill, is recommended eligible under Criterion C as a rare example of a late-19th-century jute textile mill that retains an appropriate scale and massing for the period. It is recommended eligible under Criterion A for its association with a pattern of development in Paterson's textile industry, first as a steam-powered jute mill and second as a silk mill. It is also eligible under Criterion B for its association with Joseph C. Todd, one of Paterson's notable 19th-century mechanics and businessmen.	
9	Robert Gaede Silk Dyers (National Silk Dyeing Company)	2-12 E Main Street	-437019657	1895	The former Gaede Silk Dyeing Co. works is located on a triangular-shaped parcel of less than 1 acre formed by North Straight Street on the north, East Main Street on the west, and the Passaic River to the east and south. The works consist of interconnected 1- and 2-story brick and frame buildings surrounding a small mill yard.	Eligible. The Gaede Silk Dyeing Company is recommended eligible under Criterion C as a significant representative example of the plan and layout of a late-19th-century silk dye works, exemplified in its dye house, finishing shop and frame outbuilding, built against the Passaic River. It is also recommended eligible under Criterion B for its association with Robert Gaede, a prominent Paterson silk dyer, and under Criterion A for its association with the patterns of the silk dyeing industry's development in Paterson.	

Table 3.1. Summary of Survey Results (Continued).

10	Hall Mills	94 Fulton Street	1172882934	1899-1915	<p>The Hall Mill is situated on 1.5 acres; it contains two 4-story tenant mills, each measuring approximately 200 feet. The northern mill parallels Fulton Street and was constructed ca. 1899. The southern mill, fronting Harrison Street, was constructed between 1899 and 1915, at which time the earlier mill was expanded to its current dimensions.</p>	<p>Eligible. Hall Mills are recommended eligible under Criterion A for their association with patterns of tenant mill development in Paterson's silk industry at the turn-of-the-century. They are recommended eligible under Criterion C for embodying the distinctive characteristics of late-19th-century textile mill architecture, particularly in terms of scale and a plan that situates two large mills on either side of a central power house and mill yard.</p>	
11	Hinchliffe Brewery	63 Governor Street	-412105751	1890	<p>The Hinchliffe Brewery is located adjacent the Erie Railroad and retains two of its ornate ca. 1890 buildings: the brew house and the cold storage building. To the rear of the lot are the remains of tile and concrete silos for storing grain. Unfortunately, the malt house and an office that occupied the west end of the lot have been razed.</p>	<p>Eligible. The Hinchliffe Brewery is recommended eligible under Criterion C as the last remnant of Paterson's historic brewery industry and for its ebullient architectural style, so characteristic of late-19th-century urban brewery architecture. The integrity of this site and its buildings have been greatly diminished but enough survives to convey the significance and character of the last large buildings associated with Paterson's brewery heritage.</p>	
12	International Print & Dye	35-39 1st Avenue	-97394947	circa 1928-30	<p>International Print & Dye is a 2-story brick dye house complex located adjacent to the Passaic River in the Riverside section of Paterson.</p>	<p>Not Eligible. International Print & Dye is a later example of a midsized dye works of which there are several earlier and better representative examples in the survey. The works has integrity but not a high level of architectural significance even as a representative example of its type.</p>	
13	J.S. Sowerbutt Mill	28-36 Paterson Avenue	-1705710456	1905-06	<p>The J.S. Sowerbutt Mill consists of two reinforced-concrete tenant silk mills built in 1905-06. The smaller of the two mills is plainly finished but the larger is scored to appear like coursed ashlar.</p>	<p>Eligible. The J.S. Sowerbutt Mill is an early and remarkably complete example of reinforced-concrete textile mill construction in Paterson and in New Jersey, dating to the early period of experimentation and refinement in structural concrete design. It is further enhanced by its aesthetic character where the builder took advantage of the moldable qualities of concrete to add architectural detail. The mill is also eligible under Criterion A for its association with Paterson's silk industry and the pattern of work in tenant mills.</p>	
14	John Hand Mill	200 Gould Avenue	540710596	1892, 1895, 1915-31	<p>The John Hand & Sons Mill complex contains a large brick mill constructed in three phases for the purpose of manufacturing broad and narrow silks. The first phase, constructed in 1892, measures 235 ft. along West Railway Avenue; the second phase, built in 1895, parallels Gould Avenue and measures 125 ft. wide; the third phase, constructed between 1915 and 1931 stretches 125 ft. along Goshen Street.</p>	<p>Eligible. The John Hand & Sons Silk Manufacturing Mill is recommended eligible under Criterion A for its association with the Paterson silk industry and its role in the labor strikes of the early 20th century. It is recommended eligible under Criterion C for embodying distinctive characteristics of textile mill architecture with an emphasis on functionality and efficiency.</p>	
15	Manhattan Shirt	111-237 River Street	1465614458	circa 1895-1920	<p>The Manhattan Shirt Company site consists of a U-plan brick factory building, built circa 1895 with later additions to complete the U, half of which has been heavily altered in a modern rehabilitation. A warehouse building, circa 1920, is located about one block to the northeast. Intervening buildings, which once provided continuity between the two halves of the site have been demolished.</p>	<p>Not Eligible. The Manhattan Shirt Company, founded in 1855-56 by Jacob Levi, grew from a small shop to a major garment factory in the first decades of the 20th century. The complex does not retain any of its earliest buildings, which were razed, and those buildings that do survive have been heavily altered and are not architecturally distinguished. The integrity of design, setting and feeling are greatly diminished by the loss of the section of the complex that was located between the two surviving buildings. They are no longer visually connected.</p>	

Table 3.1. Summary of Survey Results (Continued).










16	Miesch Silk Co. Totowa Works	468-480 Totowa Avenue	-932617725	1909	The Miesch Silk Co. Totowa Avenue Works is an industrial complex situated on 2 acres containing 3 primary structures dating to the first quarter of the 20th century plus infill. The primary building is a 4-story, L-shaped brick mill that spans 200 feet along Totowa Avenue. Behind this mill is 1-story, brick silk staging/boiler house and a 1-story, brick cloth cutting building. Over time, various auxiliary 20th-century structures have linked these three buildings. Of note is a cylindrical brick smokestack located between the mill and the boiler house.	Eligible. The Miesch Silk Co. Totowa Avenue Works are recommended eligible under Criterion A for their operation as a conglomerate mill and their association with the Paterson Silk Strike of 1925. They are also recommended eligible under Criterion C as the mill embodies the distinctive characteristics of textile mill architecture with an emphasis on functionality and efficiency.	
17	Miesch Silk Mfg. Courtland Works	52 Courtland Street	-1318393871	circa 1890	The Miesch Silk Manufacturing Co. Courtland Works is an industrial complex situated on 1.22-acres. The site contains a ca. 1890 brick mill with a ca. 1910 extension, a ca. 1890 tenant mill, also with ca. 1910 extensions, and various mid-20th-century infill structures. The complex comprises all but the southwest corner of the rectangular city block upon which it is located.	Eligible. The Miesch Silk Manufacturing Co. Courtland Street Works are recommended eligible under Criterion A for their association with the patterns of development of the silk industry in Paterson including their association with the working conditions and the Strike of 1925. They are recommended eligible under Criterion C as a significant intact example of a late-19th-century silk mill that was built as an integrated throwing and weaving shop that added a tenant mill.	
18	Morrison Machine	200 Van Houten Street	1395062447	circa 1910	The Morrison Machine Company mill is a 4-story, 3-bay, rectangular plan building with façade articulated by multi-pane windows of various shapes and sizes, accented with brownstone sills and lintels. It is located adjacent the Erie Railroad corridor in downtown Paterson.	Eligible. The Morrison Machine Co. mill is recommended eligible under Criterion C as one of Paterson's finer examples of early 20th century industrial architecture, achieving an unusual aesthetic of the basic mill form through patterns of narrow, semi-circular and rectangular windows. It is recommended eligible under Criterion A for its association with Paterson's significant machine works industry. Morrison was an important builder of silk and textile machines.	
19	National Silk Dyeing Company (East Main Street Works)	6-34 Piercy Street	-1263381396	circa 1910-1925	The National Silk Dyeing Company East Main Street Works is a complex of industrial buildings dating from circa 1910-1925. The complex includes a 1.5-story, gabled brick steam plant with yellow-brick smokestack, built circa 1910; a series of 1-story brick buildings with clipped gable ends and monitor roofs, built circa, 1910, that historically housed the works' weighting department; and a 4-story, 5-bay, square plan, reinforced-concrete frame building, built circa 1925, that historically housed National's finishing department with a state-of-the-art chemistry lab on the upper floor.	Eligible. The National Silk Dyeing Company's East Main Street Works is recommended eligible under Criterion C as an important representative example of an early 20th century dye works with good surviving examples of a steam plant, weighting department, finishing department and laboratory. It is recommended eligible under Criterion A for its association with the events that led to the establishment and growth of the National Silk Dyeing Company as one of Paterson's leading silk dyeing and finishing firms.	
20	New Standard Aircraft (New York Pressing Machine Co.)	230-242 E 16th Street	-343704538	circa 1927	The New Standard Aircraft mill complex, built circa 1927, consists of a 1 and 2-story, monitor-roofed, brick machine shop and office.	Eligible. The New Standard Aircraft machine shop and offices are recommended eligible under Criteria A and C as a significant representative example of Paterson's machine works industry as it expanded into other fields of endeavor, beyond its traditional textile machine focus, in the early 20th century.	

Table 3.1. Summary of Survey Results (Continued).

21	Pierre Thonnerieux Silk Dyeing (Royal Piece Dye Works)	7-37 6th Avenue	1543599841	circa 1900-1930	The Pierre Thonnerieux Silk Dyeing works is a large complex of interconnected brick buildings, ranging in height from 1 to 4 stories, and built up over about 30 years, mostly after the works was taken over by the Royal-Hasco dyeing company in 1909.	Eligible. The Pierre Thonnerieux Silk Dyeing works is recommended eligible under Criterion A for its association with the development of Paterson's silk dyeing industry, illustrating a pattern of how family dye works were drawn into larger national and international conglomerates and expanded. This was a prominent works from the 1910s to 1930s, located in the dyeing dominated Bunker Hill neighborhood.	
22	Riverside Silk Mill	781 River Street	702542178	1889	The Riverside Silk Mill is an industrial complex situated on 3.4 acres. It is comprised of a ca. 1889, 450-ft. brick mill, formerly used for the manufacture of silk ribbons and broad silks. Several non-contributing frame and masonry structures are located to the rear of the mill.	Eligible. The Riverside Silk Mill is recommended eligible under Criterion C because it embodies the distinctive characteristics of late-19th-century silk mills with an emphasis on functionality.	
23	Savoy Shirt Co. (Fairhurst and Company Silk Mill)	578 E 19th Street	-1689923521	circa 1880-1910	The Savoy Shirt Company complex is a small garment and silk works that grew into its current appearance during the 1880s to 1910s under the guidance of Joseph Fairhurst. It consists of 1). a 2-story, brick textile mill in a U-shaped plan with a small powerhouse in the mill yard; 2). a small 2-story brick tenant mill.	Eligible. The Savoy Shirt Company is recommended eligible under Criterion C as a architecturally significant representative example of the planning of a small textile mill integrated into a residential setting.	
24	Sipp Machine Co.	48-62 Warren Street	-920788775	circa 1900-1910	The Sipp Machine Co. complex is a series of interconnected 1 to 4 story brick industrial buildings occupying a block adjacent to the Erie Railroad corridor. It developed into its current extent and footprint during the first decade of the 20th century.	Eligible. The Sipp Machine Company is recommended eligible under Criterion A as an important manufacturer of silk machinery and one of Paterson's prominent machine builders. The complex is also recommended eligible under Criterion C as an important representative example of the planning and layout of an early 20th century machine works.	
25	Susquehanna Silk Dyeing (De Gise Dyeing Company)	196-202 E. 16th Street	1717963010	circa 1910-30	The Susquehanna Silk Dyeing Company is a 1 to 2 story, stuccoed brick dye house that was established circa 1910 with one brick building and expanded into its current form by the end of the 1920s. Perhaps the most interesting feature of the works are its two brick smokestacks, one attached to a free-standing corrugated-metal steam plant.	Eligible. The Susquehanna Silk Dyeing Company is recommended eligible under Criterion C as an important representative example of an early 20th century dye works complete with smokestacks and two steam plants.	
26	Washington Piece Dyeing (Ashley and Bailey Silk Mills)	48-56 Putnam Street	1170015032	circa 1890-1920	The Washington Piece Dyeing company complex was built in the 1890s as the Ashley-Bailey Silk Company. The company went out of business by 1915 and the plant, which consisted as a series of interconnected 2 to 4 story brick textile mills was broken up into a series of tenant mills, the most prominent of which at the western end of the block was Washington Piece Dyeing.	Eligible. The Washington Piece Dyeing works is recommended eligible under Criterion C as an intact and significant example of a ca. 1890-1915 integrated silk mill built and operated by the Ashley-Bailey Silk Company. The mill is also eligible under Criterion A for its association with the patterns of development of Paterson's silk industry and the break-up of integrated mills into tenant mills carrying out discrete operations like weaving and dyeing.	

Table 3.1. Summary of Survey Results (Continued).

27	Watson Machine	74-102 Railroad Avenue	613220621	circa 1875-76	<p>The Watson Machine Works is an intact complex of mid-1870s brick machine shops, erecting shed, and a foundry built by the Watson brothers for the manufacture of machines of all types, as well as bridges.</p>	<p>Eligible. Watson Machine Works is eligible under Criterion A as one of Paterson's most prominent and longest-lived machine works, representing Paterson's distinguished specialty metalworking traditions. It is eligible under Criterion C as an important representative and intact example of machine works architecture.</p>	
28	Weidmann Silk Dyeing	5 5th Avenue	830832224	circa 1887-1920	<p>The Weidmann Silk Dyeing Works is a remarkably complete silk dyeing and finishing plant with most of its buildings built in the late 1880s to 1900s, with some later expansions. The sprawling works is located on more than 8 acres along the Passaic River in the Riverside section of Paterson. The works, mostly built in brick, includes a great variety of industrial building forms.</p>	<p>Eligible. The Weidmann Silk Dyeing Works is eligible under Criterion A for its association with the patterns of development of Paterson's silk industry. Weidmann was the largest of the turn-of-the-century silk dyers, and the plant and its works also figured prominently in the Strike of 1913. It is eligible under Criterion B for a direct association with Jacob Weidmann, a major figure in the industry, who personally supervised the construction and expansion of the plant. It is also eligible under Criterion C as a remarkably intact example of dye works industrial architecture and layout.</p>	
29	Wm. Strange Mills	44 Beech Street	-1922255993	circa 1875, 1877,circa 1910	<p>The William Strange Mills are a late-19th-century industrial complex situated on a 1.83 acre lot that occupies the entirety of a rectangular city block. The site features a handsome ca. 1875, 3-story brick mill, square in plan so as to form a courtyard, with an extending ell at the northeast corner of the square. With the ell, this mill stretches 400 ft., the entire length of the block along Beech Street. At the northwest corner of the block is an L-shaped, 4-story brick mill constructed between 1899 and 1915. A silk storage house, a boiler house, and a carpentry shop, all brick, are located within the courtyard, but were not accessible at the time of this survey. Several other auxiliary buildings at the interior were also inaccessible at the time of this survey.</p>	<p>Eligible. The William Strange Mills are recommended eligible under Criterion A for their contribution to the expansion of the Paterson silk industry and the domestic silk manufacturing. They are recommended eligible under Criterion B for their direct association with William Strange, a leading figure in the post-Civil War growth of the silk industry in Paterson. The mill complex is recommended eligible under Criterion C for embodying distinctive characteristics of late-19th-century and early 20th-century textile mill architecture with high aesthetic merit.</p>	
30	Wright Aeronautical Co.	110-124 Beckwith Avenue	480898480	circa 1916-1940	<p>The Wright Aeronautical Company complex consists of an architecturally distinguished 4-story, daylight factory, built in stages from 1916 to 1928 and an adjacent one-story machine shop and unusual test-cell building built prior to WWII on an adjacent block.</p>	<p>Eligible. The Wright Aeronautical Company complex is recommended eligible under Criterion A for its association with a company that played a leading role in the development of aircraft technology, specifically the rotary air-cooled engines that were designed and constructed here. It is also significant as an example of how Paterson's skilled machinists adapted to 20th-century conditions and products. It is also eligible under Criterion C as a distinguished example of industrial architecture with the first portion of the plant designed by Paterson architect Fred W. Wentworth. The test cell building is an unusual type of industrial architecture designed specifically for testing dozens of engines in windowless reinforced rooms.</p>	

capital and labor to survive in competitive markets. This was nowhere more true than in the volatile silk trades, subject to ever-changing clothing fashions.

The integration of mills into Paterson's urban infrastructure seems to have been as much an organic process as a planned one. Architects and engineers relied heavily on vernacular industrial architecture, sometimes incorporating new structural systems and technologies, but generally choosing conservatively to rely on well-known building forms, most of them associated with textile mills and machine shops. Occasionally, there were forays into new technologies, such as reinforced concrete, but these seem to have been more the exception than the rule. These efforts resulted in the construction in Paterson of hundreds of silk mills and dozens of machine works, ranging in size from small free-standing shops to enormous mills encompassing entire blocks, but rarely rising over four stories tall. Some mill owners and/or their architects applied current architectural styles to their mills, with varying degrees of success, and in several instances were able to balance massing and ornament, using materials, shadow and scale, to create distinguished structures that rank as excellent representative examples of industrial architectural design.

The specific means by which a mill may meet each of the National Register criteria are discussed below:

National Register Criterion A: Under Criterion A, a mill and its related support buildings and structures may have an association with the following areas of significance described by the historic context.

Mills may have been associated with important, meaningful trends in the business of manufacturing, processing, and trading goods or commodities. Specifically, mills facilitated Paterson's development as a major player in the silk, silk dyeing and printing, and specialty machine trades. Many of these products were considered highly innovative in their

time and made significant contributions to patterns of events associated with manufacturing technology and the development of industrial sectors that were significant not just to Paterson but to larger regional and national economies. In the case of silk mills and silk dyers, this most often applies to mills that were recognized in their time as important and significant contributors to the development of the silk trade. Two other significant examples in the Paterson context are the three Paterson locomotive companies that played a major role in the development of railroad technology and the Wright Aeronautics Company that developed air-cooled rotary aircraft engines advancing military and civilian aviation.

Paterson mills may also have significant relationships to events or patterns of events associated with American labor history and its related National Register areas of significance under social history and ethnic heritage. These events include a pattern of working conditions that resulted in the development of an immigrant-led labor movement that sought out significant rights of collective bargaining and improved working conditions. This long-term pattern of struggle, although often turning against workers' demands, has long been recognized by labor scholars as offering important lessons in how skill and ethnicity molded perceptions of American labor and its ability to organize effectively. The Strike of 1913 has often been understood as a seminal moment in the American labor movement when the International Workers of the World (I.W.W.) battled for supremacy over trade unions, staking their reputation on a successful outcome in Paterson. The failure of the strike to win meaningful silk industry-wide concessions in Paterson was a fatal blow to the I.W.W., which was seeking to present to the United States an alternative philosophy of workers' rights and identity. More background research is recommended to establish which of the mills in this survey have sufficient levels of association to demonstrate significance in the area of labor history under Criterion A.

National Register Criterion B: Under Criterion B, a mill may have significance if a historically significant person relates directly to the structure. In the case of the Paterson mills in this survey, this usually applies when a mill was associated with the career of an important businessman or other civic leader who sponsored, advocated or managed its construction or operation, such as Nathan Barnert and William Strange. The Paterson history secondary and primary sources consulted for this survey offered good background information for identifying important businessmen and civic leaders.

National Register Criterion C: Under Criterion C, a mill may embody the distinctive characteristics of industrial architecture and the application of practical building arts to the design, construction and operation of mills. Building plans and design in most cases relate directly to raw materials storage and handling, machinery placement and operation, and power generation and distribution systems. Mills may also be important representative works of significant architects/engineers, like Fred W. Wentworth, a notable Paterson architect. Important trends in the field of Paterson's industrial architecture include distinctive and important representative examples of the evolution in mill design and construction from masonry and timber-frame structures to steel-frame and reinforced-concrete frame structures. Some mills may be important representative examples that incorporate architecturally distinctive and character-defining features of the property type including building form (narrow width-to-length ratios), slow-burning mill construction, multi-story and multi-bay facades to maximize natural lighting, side gable and clerestory roof lines, complex site plans with multiple additions to conform to street grids, courtyards and alleyways, powerhouses and smokestacks. Mills may also reflect the application of architectural styles to vernacular industrial building forms and the work of master builders or

high levels of workmanship and craftsmanship, especially in masonry work and ornamentation as seen in towers, cornices, windows and doorways.

National Register Criterion D: Under Criterion D, a mill may be eligible for the information it could yield about its operations, technology or construction. Potential significance under this criterion may be largely associated with information that could be attained through the techniques of industrial archaeology, not limited to subsurface investigations, and inclusive of examination of interior spaces for evidence of machinery and tools, artifacts associated with workers, evidence of raw materials and wastes, and the specific industrial processes that occurred within workspaces. To be significant under this criterion, it would need to be demonstrated that a mill has the potential to yield information that would not be available through historical documents and that would be useful in addressing significant research questions. Mills in the survey were not evaluated under this criterion due to the limitation of available data and lack of access to building interiors.

Integrity. In addition to the requirement that a mill must meet one or more of the National Register criteria for listing, it must also retain sufficient integrity to convey its significance. The aspects of integrity are location, design, setting, materials, workmanship, feeling and association.

Location is an important aspect of integrity for mills because the place where a mill was constructed defines its relationship to the historical geography of Paterson. However, the likelihood of a mill having been moved to a new location is very remote and nearly all surviving examples of the property type will have integrity of location. Therefore, integrity of location by itself, without other aspects of integrity, is not considered sufficient for a mill to convey its significance.

Design and materials are critical aspects of integrity because they embody the distinctive characteristics in industrial architecture upon which significance is based under Criterion C and often also relate directly to a mill's significance under Criterion A. The design of a mill includes its overall plan, elevations and internal supporting structural systems. Important to design are the site plan and the orientation of the mill and its elevations as they were designed in relationship to nearby properties, the street grid and other transportation systems like rail lines. The materials of a mill include the exterior fabric of curtain walls and architectural detail, as well as the materials that compose the structural system. Significant alterations to design and materials include changes in architectural ornamentation, exterior finish, strengthening or replacement of structural systems, removal or replacement of exterior walls, and alterations of a building's designed orientation. Fenestration is a very common alteration in almost all of the mills in the survey. Changes to the shape of window openings or in-fill are considered significant, but the removal of original frame and sash is not considered sufficient grounds in itself to disqualify a mill from eligibility. Alterations to design and materials may have a substantial impact on the ability of a mill to convey its significance.

For a mill to have integrity of setting, the setting must generally reflect the basic physical conditions and character that existed during the period when the mill achieved its significance. For example, does the extant setting convey the character of an urban mixed-use neighborhood at the time when the mill achieved significance? Loss of integrity of setting is not sufficient by itself to disqualify a property from listing, but the degree of historic setting can assist most mills in conveying their significance. Primary factors to consider when assessing integrity of setting include the age, character and scale of surrounding buildings.

Integrity of feeling and association may have been lost if modern materials of such scale and contrast have been applied and the observer is more impressed by the alterations than the historic resource. Normally, this level of alteration will have also greatly impacted design and materials. Workmanship is typically not a critical aspect of integrity for mills, but some discrete features such as architectural ornamentation may exhibit important qualities of workmanship.

Mills often consisted of complexes of buildings that may have been free-standing or attached. This is often important evidence for the growth of a mill to accommodate increased production or changes and improvements in technological processes. Boundaries for qualified mills should include any surviving support buildings and structures that have a direct relationship and also retain sufficient integrity to convey their supporting roles.

C. Eligibility for the New Jersey and National Registers

The mills in this study were evaluated for eligibility to the New Jersey and National Registers by applying the criteria for evaluation and the aspects of integrity per the above discussion. A total of 28 mills were evaluated as being eligible for the registers (see Table 3.1 for a summary). Justifications for the eligibility evaluations are provided on the eligibility attachment of the intensive-level survey forms for each mill (see Appendix C).