“AN INCORPORATION OF THE ADVENTURERS”

A History of the Society for Establishing Useful Manufactures, Paterson “Silk City” and its People, and the Great Falls of the Passaic River

EDITH B. WALLACE, M.A.

HISTORIC RESOURCE STUDY

PRESENTED TO THE PATerson GREAT FALLS NATIONAL HISTORICAL PARK

IN PARTNERSHIP WITH THE ORGANIZATION OF AMERICAN HISTORIANS/ NATIONAL PARK SERVICE
“An Incorporation of the Adventurers”

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Historic Resource Study

by

Edith B. Wallace, M.A.

Presented to the Paterson Great Falls National Historical Park
in partnership with
the Organization of American Historians/National Park Service
Northeast Region History Program

National Park Service
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December 2019

Cover Illustration: Thomas Whitley, oil painting of the Nail Factory, circa 1835.
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# Table of Contents

List of Figures ................................................................. ix  
Acknowledgements ............................................................ xv  
Preface ........................................................................ xvii  
  Research Methods ......................................................... xvii  
  HRS Text Development with Chapter Descriptions and Major Findings .... xviii  
  List of Abbreviations .................................................... xvi  
Introduction .............................................................................. 1  
  Geology of the Great Falls and the Watchung Mountains ................. 2  
  Paterson Great Falls National Historical Park: Significance and Resources .... 5

## Chapter 1

**Peopling the Great Falls of the Passaic Landscape** ........................................ 17  
  Introduction .............................................................................. 17  
  Algonquian Roots ..................................................................... 18  
  Peoples of the Mid-Atlantic before 1650 .................................... 19  
  Lenape of the Mid-Atlantic, CE 1600 to 1650 ............................. 25  
  Lenape of the Passaic Valley ...................................................... 31  
  European “Discovery” and the New Netherland Claim .................. 35  
  Dutch Contact with the North River Lenape ............................... 37  
  The Anglo-Dutch Wars and a Renewed British Claim .................. 41  
  Extension of Settlements into the Passaic Valley ......................... 44  
  Land around the Great Falls of the Passaic .................................. 49  
  Conclusion ............................................................................. 53

## Chapter 2

**Building a New Nation** ............................................................... 57  
  Introduction .............................................................................. 57  
  Water Power and Manufacturing in Colonial East Jersey ................ 58  
  Seeds of Revolution ................................................................... 61  
  Northern New Jersey in the American Revolution ....................... 64  
  Competing Political and Economic Visions for the New Nation .......... 69  
  Alexander Hamilton and Tench Coxe: Developing the Independent American Economy ................................................................. 73  
  Conclusion ............................................................................. 79
### Table of Contents

**CHAPTER 3**  
*The Society for Establishing Useful Manufactures, 1791–1799*  
Introduction ................................................................. 81  
American Corporations in the Late Eighteenth Century .................. 82  
Prospectus and Charter of the Society for Establishing Useful Manufactures .... 83  
The First Year of the S.U.M.: Location, Location, Location .................. 88  
Pierre L'Enfant and Peter Colt: Building the S.U.M. and Paterson ............. 98  
Workmen of the S.U.M. Construction Phase ................................ 107  
S.U.M. Manufacturing and Factory Workers .................................. 108  
Conclusion ........................................................................ 113

**CHAPTER 4**  
*S.U.M. after 1800, a Platform for Technological Innovations*  
Introduction ........................................................................ 115  
The US Economy at the Turn of the Nineteenth Century ..................... 116  
S.U.M. Infrastructure Makes Paterson a Destination for Industrial Growth .... 119  
Innovative Technologies and the Industrial Revolution ...................... 133  
Connecting to the S.U.M. Raceways ......................................... 141  
US Immigration and Paterson’s Mid-Nineteenth-Century Population .......... 144  
Conclusion ........................................................................ 151

**CHAPTER 5**  
*Silk City* ............................................................................ 153  
Introduction ........................................................................ 153  
A Brief History of Silk Production in the United States ....................... 154  
The Silk Manufacturing Process ................................................. 156  
John Ryle and Silk in Paterson .................................................. 159  
The Paterson Industrial Boom, 1870–1900 .................................... 167  
Other Paterson Industries ........................................................ 171  
Role of the S.U.M. in Supplying Power Evolves .............................. 181  
Paterson Layers: “Silk Barons” and Mill Workers ............................... 188  
Labor Unrest—The Paterson Silk Strikes of 1911 and 1913 ................... 196  
Conclusion ........................................................................ 204
# Table of Contents

## Chapter 6

*Changing Paterson: Migrations, Depression, and War*

<table>
<thead>
<tr>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>Paterson’s Changing Population—African Americans</td>
</tr>
<tr>
<td>World War I and Paterson Industry</td>
</tr>
<tr>
<td>Paterson’s Changing Industrial Landscape through the 1920s</td>
</tr>
<tr>
<td>Hinchliffe Stadium and the Great Depression</td>
</tr>
<tr>
<td>World War II and Paterson Industry</td>
</tr>
<tr>
<td>The End of the S.U.M.</td>
</tr>
<tr>
<td>Conclusion</td>
</tr>
</tbody>
</table>

## Chapter 7

*Epilogue—Industrial Collapse, Environment, Decay, and Hope for the Future*

<table>
<thead>
<tr>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>Decline of Industry: Paterson through the Second Half of the Twentieth Century</td>
</tr>
<tr>
<td>Community Efforts to Improve Paterson</td>
</tr>
<tr>
<td>State and Federal-Level Efforts</td>
</tr>
<tr>
<td>Conclusion: Recommendations for Future Research</td>
</tr>
</tbody>
</table>

### Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A: S.U.M. Prospectus and Charter</td>
</tr>
<tr>
<td>Appendix B: Selected Pierre Charles L’Enfant Documents</td>
</tr>
<tr>
<td>Appendix C: 1891 Chart of Silk Industries</td>
</tr>
<tr>
<td>Appendix D: Paterson Historic Mills Intensive Survey</td>
</tr>
<tr>
<td>Appendix E: 2017 NHL Cultural Resource Map</td>
</tr>
<tr>
<td>Appendix G: National Historic Landmark Documentations</td>
</tr>
<tr>
<td>Appendix H: Paterson Great Falls National Historical Park Legislation</td>
</tr>
</tbody>
</table>

### Bibliography

<table>
<thead>
<tr>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bibliography</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1: Great Falls of the Passaic. (Photo by the author, October 2018) ......................1

Figure 2: Sketch map showing the outline of basalt outcrops of the three Watchung Mountains. (Faust, USGS Report, 1975) .................................3

Figure 3: Southern limit of Wisconsin ice sheet over the Watchungs. (Faust, USGS Report, 1975) ................................................4

Figure 4: Paterson Great Falls National Historical Park Site Map, showing resources located within the park boundaries. (GMP, 2016) ..................13

Figure 5: 2007 aerial photograph of the ATP site, showing site boundary and locations of ruins. (Hunter Research, ATP CR, Volume 1, citing New Jersey Department of Environmental Protection) ...............16

Figure 6: Carl Schondorf’s lithic collection chart. (Paterson Museum) ..................... 22

Figure 7: 1616 Cornelius Hendricksen map of New Netherland, redrawn by John Brodhead in 1841. .................................................30

Figure 8: 1706, John Thornton, A New Map of East and West New Jarsey. (Library of Congress) ...........................................................33

Figure 9: 1639 Joan Vinckeboons’ Noort Rivier map. (Library of Congress) ............ 38

Figure 10: The State of New Jersey, about 1780, showing division lines. (Library of Congress) .................................................................43

Figure 11: Maps showing the evolution of New Jersey divisions. (From Joseph Klett, “Using the Records of the East and West Jersey Proprietors,” New Jersey State Archives) ...........................................48

Figure 12: The Gotham Division. (New York Public Library) ..................................50

Figure 13: Map of Totowa and The Boght, J.M. Lathrop, n.d. (Paterson Free Public Library) ..........................................................51

Figure 14: 1761 Paul Sandby etching of the Great Falls of the Passaic, from Thomas Pownall sketch. (Library of Congress) .........................53

Figure 15: “Estimated Population of Colonies,” New Jersey, Pennsylvania, New York. 55
List of Figures

Figure 16:  Detail of Lot 8 from Map of Totowa and The Boght.  
(Paterson Free Public Library) .............................................. 60

Figure 17:  Map Showing the location of the American Army, 1780. 
(Nelson, History of Paterson, 236) ............................................ 67

Figure 18:  Alexander Hamilton, by Thomas H. Crawford. (Library of Congress) ...... 74

Figure 19:  Tench Coxe, Samuel Sartain print. (New York Public Library) ............ 75

Figure 20:  An Act to Incorporate. (Rutgers Law Library) ..................................... 87

Figure 21:  $48 to George Parkinson from Alexander Hamilton, July 30, 1791. 
(Library of Congress) ............................................................... 89

Figure 22:  Thomas Marshall to Alexander Hamilton, Oct. 2, 1791. 
(Library of Congress) ............................................................... 91

Figure 23:  S.U.M. Directors’ Minutes, Vol. 1, Part 1. (Paterson Museum) .............. 96

Figure 24:  S.U.M. Directors’ Minutes, Vol. 1, Part 1. (Paterson Museum) .............. 97

Figure 25:  HAER map, “Paterson Raceways, 1792–1799.” (Library of Congress) ...... 100

Figure 26:  S.U.M. Minutes, p. 83. (Paterson Museum) ............................................. 106

Figure 27:  HAER map, “Paterson Raceways 1800–1827.” (Library of Congress) ...... 121

Figure 28:  Thomas Whitley, oil painting of the Nail Factory, circa 1835.  
(Passaic County Historical Society) ............................................ 122

Figure 29:  Roswell L. Colt. (New York Public Library) ............................................. 124

Figure 30:  Two pages from Reverend Samuel Fisher’s 1827 census.  
(Paterson Museum) ................................................................. 128

Figure 31:  Van Hagener, Map of the Town of Paterson, NJ, 1840.  
(Clayton and Nelson) .............................................................. 130

Figure 32:  Reproduction of Rogers No. 119 at Golden Spike National Historical Park, Utah. Inset: close-up of the Great Falls of the Passaic inlay.  
(photos by author, 2009) ....................................................... 133

Figure 33:  1906 insurance image of Rogers Locomotive Works. (Library of Congress) 135

Figure 34:  Images of Danforth Locomotive Works, ca. 1900. (Library of Congress) ... 137

Figure 35:  Samuel Colt patent drawing, #X9430. (US Patent and Trademark Office) . 139
List of Figures

Figure 36: Paterson Museum display of Colt Paterson revolvers and rifles manufactured in the Paterson factory. (photo by author, 2018) .................. 139
Figure 37: Upper Tail Race and southern spillway ca. 1860, showing the Rogers Locomotive Works flumes. (Passaic County Historical Society) ............ 141
Figure 38: 1887 Sanborn map showing detail of the Rogers Locomotive Works connection to the Upper Raceway. (Library of Congress) .................... 142
Figure 39: 1887 Sanborn map showing detail of the Ivanhoe Paper Co. connection to the Upper Raceway. (Library of Congress) .................... 143
Figure 40: 1887 Sanborn map showing the former Colt Gun Mill connection to the Middle Raceway. (Library of Congress) .................... 144
Figure 41: US Population totals, 1790–1990. (US Census Bureau) .................. 146
Figure 42: Page from 1825 Fisher “Statistical Account.” (Paterson Museum) .......... 147
Figure 43: 1835 map of Paterson. (Library of Congress) .................... 150
Figure 44: Organzine and Tram. (Woolman and McGowa) .................... 157
Figure 45: John Ryle portrait. (in Trumbull, 171) .................................. 160
Figure 46: Ryle Silk Mill and Dye Works ca. 1855. (Paterson Historic Preservation Commission) .................... 161
Figure 47: 1854 wall map, “Paterson Mills.” (Paterson Museum) .................. 162
Figure 48: Sketch of Great Falls and Cottage on the Cliff, 1880. (Trumbull) ........ 163
Figure 49: 1871 Map of Paterson, detail showing the water works site. (Library of Congress) .................... 164
Figure 50: Vista Park Master Plan, showing a series of historic images of Monument Heights. (City of Paterson) .................... 165
Figure 51: 1861 Map of Bergen & Passaic Co., Paterson detail. (Library of Congress) .................... 166
Figure 52: Silk production by state, 1880. (Mason, 47) .................... 168
Figure 53: 1877 Atlas of Passaic Co., Paterson Wards 4, 5, 6 & 7. (Library of Congress) .................... 170
List of Figures

Figure 54: 1899 Sanborn map, showing Knipscher & Maass Silk Dyeing Company. (Library of Congress) ................................................................. 172

Figure 55: 1887 Sanborn map showing Dolphin and Barbour mills. (Princeton Archives) ................................................................. 175

Figure 56: Barbour Granite Mill. (Library of Congress) ................................. 176

Figure 57: 1887 Sanborn Map showing the Ivanhoe Paper Mill complex. (Princeton Archives) ................................................................. 178

Figure 58: 1899 Sanborn Map showing the Ivanhoe Paper Mill complex. (Princeton Archives) ................................................................. 178

Figure 59: Cast iron reeling and spinning machines built by the Danforth Locomotive Co. (Brockett, p. 90, 1876) ......................................................... 179

Figure 60: 1887 Sanborn map showing the Grant Locomotive Works and Cooke Locomotive & Machine Works. (Princeton Archives) ............... 180

Figure 61: Holland’s first experimental submarine (foreground), salvaged from the Passaic River at Paterson. (Paterson Museum) ......................... 181

Figure 62: Bird’s-eye view of Paterson, 1880. (Library of Congress) ............... 183

Figure 63: 1898 letter from G. H. Longbottom (Rogers Locomotive secretary) to S.U.M. attorneys. (Paterson Museum) ................................. 185

Figure 64: S.U.M. Power Plant, 1915. (Paterson Museum) ......................... 186

Figure 65: 1915 letter from S.U.M. to Phoenix Silk Manufacturing Co. (Paterson Museum) ................................................................. 187

Figure 66: Manufacturing census table for New Jersey, compiled in 1919 for the 1920 census. (US Census Bureau) ........................................ 188

Figure 67: Belle Vista. (Library of Congress) ............................................. 190

Figure 68: John Ryle House, 1927. (National Register documentation) ........... 191

Figure 69: John Norwood House, 1877. (Atlas of Passaic County) ............... 192

Figure 70: 1877 Atlas Map, Paterson 3rd and 6th Wards. (Library of Congress) .. 193

Figure 71: 1880 Population census figures for selected cities (see Line 34 for Paterson figures), showing country of origin. (US Census Bureau) ......... 194
List of Figures

Figure 72: Population Census for Paterson, showing population changes from 1840 to 1990. (US Census Bureau) .................................................. 195

Figure 73: Preamble to IWW Constitution. (Industrial Worker, Dec. 7, 1911) .......... 197

Figure 74: The Morning Call, “Mass-meeting of Silk Workers This Evening.” (fultonhistory.com) .............................................................. 199

Figure 75: Bill Haywood in Paterson, 1913. (Library of Congress) ....................... 201

Figure 76: Valentino Modestino. (American Labor Museum) ............................ 202

Figure 77: Mass meeting at the Botto House. (Wayne State University, Reuther Library, photo ID 5165) ...................................................... 202

Figure 78: Iconic Paterson Silk Strike Pageant poster. (Wikimedia Commons) ....... 203

Figure 79: 1899 and 1915 Sanborn maps showing the Doherty Mill. (Princeton Archives) ................................................................. 205

Figure 80: ALCO WDLR locomotive at the Ffestiniog Railway 1995 gala. (Photo by Dan Crow. Creative Commons) ................................. 210

Figure 81: British Kite Balloon. (Library of Congress) ...................................... 212

Figure 82: Blueprint of Wright-Martin 6H Hispano-Suiza engine, built in New Brunswick, NJ, 1918. (Library of Congress) .............................. 214

Figure 83: Wright Aeronautical Factory, ca 1916. (Harshbarger “Survey and Assessment of Mill Buildings,”) .......................................... 214

Figure 84: 1915 Atlas map detail and 1931 Sanborn map detail showing lots occupied by Wright Aeronautical. (Harshbarger “Wright Aeronautical Co.” survey form) ................................................................. 216

Figure 85: Whirlwind engines on display in Paterson Museum. (photo by author, 2018) ................................................................. 217

Figure 86: 1915 Sanborn map showing Congdon and Todd tenant mills. (Princeton Archives) ................................................................. 219

Figure 87: 1937 Lewis Hine photo of “bachelor shacks” on the edge of Paterson. (National Archives & Records Administration) ..................... 221

Figure 88: 1915 Sanborn map showing Falls Park. (Princeton Archives) ............. 222
List of Figures

Figure 89: Detail from 1932 aerial photo showing park equipment.  
(Paterson Museum #20995) ......................................................... 223

Figure 90: Newspaper clippings showing the two Olmsted plans.  
(Library of Congress) ............................................................ 225

Figure 91: Hinchliffe Stadium, 1932. (Paterson Museum #20995) ........... 226

Figure 92: 1936 Newark Eagles team photo. (https://collection.baseballhall.org/  
PASTIME/newark-eagles-team-photograph-1936-1) .......................... 228

Figure 93: Remnant of the former Colt Gun Mill. (photo by the author, 2018) .... 235

Figure 94: Interior view of the former Colt Gun Mill. (photo by the author, 2018) .... 236

Figure 95: Ruin of former Standard Printing Co. building, ATP site.  
(photo by the author, 2018) ....................................................... 236

Figure 96: Interior of former Standard Printing Co. building, ATP site.  
(photo by the author, 2018) ....................................................... 237

Figure 97: Graffiti covered stone wall remnant, possibly part of John Ryle Dye House,  
ATP site. (photo by the author, 2018) ........................................... 237

Figure 98: Overgrown remains of the Mallory Mill, ATP site.  
(photo by the author, 2018) ....................................................... 238

Figure 99: Knipscher & Maass Silk Dyeing Company, showing wastewater flowing  
into the over-used river. (Paterson Historic Preservation Commission) .... 239

Figure 100: Park view, 2018. (photo by the author) ..................................... 244
The enormous task of preparing a comprehensive history covering the Society for Establishing Useful Manufactures, the City of Paterson, and the Great Falls of the Passaic River can perhaps never really be complete. The sheer volume of primary and secondary source material available on the numerous associated nationally significant themes ensures that there will always be more to uncover about this fascinating story. This author’s humble attempt to distill a large part of that history into seven chapters could not have been accomplished without the help of many players, to whom I am truly grateful.

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In my quest for images to illustrate this report, I found myself overwhelmed by the number of historic images available. I am thankful to the Paterson Museum, Paterson Historic Preservation Commission, and to the archival staffs at the Passaic County Historical Society, the American Labor Museum, the New Jersey State Archives, and the Wayne State University Reuther Library for graciously fulfilling my requests and providing permissions to publish images from their collections.

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PREFACE

In October 2018, the Organization of American Historians (OAH) contracted on behalf of the National Park Service (NPS), Northeast Region, with Edith B. Wallace (the author) to prepare the Historic Resource Study (HRS) for Paterson Great Falls National Historical Park (the Park). The project was on a truncated preparation timeline with completion expected by December 2019.

The project Scope of Work outlined the purpose of this study: “The HRS, as defined in NPS Cultural Resource Management Guidelines (NPS-28), provides a historical overview of a park or region and identifies a park’s cultural resources within historic contexts. The study will expand the NPS’s earlier analysis of park resources and provide essential information which will inform decisions about the preservation, management, and interpretation of historic and cultural resources at the park.”

Research Methods

Given the accelerated timeline to complete this HRS, this report may be termed a “limited investigation.” However, a great deal of documentary research from previous studies is readily available in the numerous reports and secondary sources published on the Great Falls of the Passaic and the Society for Establishing Useful Manufactures (S.U.M.). NPS Northeast Region staff provided copies of the relevant cultural resource reports. While this study relied heavily on the research of others, when necessary, the author re-examined documents for clarity.

Two site visits to Paterson were completed as initial steps in the preparation of this report. The first visit served as an introduction to Paterson Great Falls National Historical Park, its resources, and its staff. The visit also included a tour of the Paterson Museum and an introduction to museum Director Giacomo (Jack) DeStefano. The second site visit included a complete tour of the Great Falls/S.U.M. National Historic Landmark district, led by Paterson Historic Preservation Commission Director Gianfranco Archimede. The tour followed the entire raceway system, entry into the Allied Textile Printers (ATP) site, included identification of the various adaptive uses of the occupied mill buildings, and a discussion of significant themes the study should address. The author additionally spent a day at the Paterson Museum reviewing the S.U.M. document collection and touring the archeological collection with Curator Anthony (Tony) DeCondo. While the author was unable to arrange a visit to the Passaic County Historical Society’s Lambert Castle museum and archives, library staff provided an abstracted list of S.U.M. documents in their possession as well as several digitized documents by request.
All other primary source research was completed by the author using digitized collections available online, including the Library of Congress (LOC) “Alexander Hamilton Papers,” the National Archives and Records Administration (NARA) Founders Online “Hamilton Papers,” and the myriad of primary source books and pamphlets available online via Google Books, Archives.org, and HathiTrust. See the Bibliography for a summary statement of significant sources.

One final note on the thematic development for this study. Four scholarly essays resulting from the NPS/OAH 2012 Scholars Roundtable were provided for review. The essays were written by academic scholars from various fields: Walter Licht, Walter H. Annenberg Professor of History at the University of Pennsylvania; Grace Palladino, Social Studies and English teacher in The School District of Philadelphia; Ellen Stroud, Associate Professor of History at Bryn Mawr College; and Cathy Stanton, Senior Lecturer in the Department of Anthropology at Tufts University (museums and tourism). Their insights and alternate perspectives provided useful background, which shaped some of the thematic direction of the HRS text.

**HRS Text Development with Chapter Descriptions and Major Findings**

This HRS addresses the natural and cultural history of the Great Falls of the Passaic and surrounding area encompassing the Park and the greater City of Paterson. Historic context development places this defined area within the larger context of American and world history to aid in interpreting the historic changes and significant moments specific to Paterson and the S.U.M. The theme of the Great Falls’ natural beauty and appeal recurs throughout the text of the report as vignettes describing the Great Falls as they appeared to visitors or ways in which the Falls were used as an attraction. The extensive timeline spans the geologic evolution of the Passaic River and Great Falls to the Paterson of today (2019).

The text begins with a brief description of the geology of the region which formed the Great Falls and continues with a description of the Park’s resources and significance (Introduction). Chapter 1 covers the prehistoric human use and occupation of the area through its occupation by Lenape bands during the Contact Period, which marks the early intrusion of European explorers, traders, and colonizers. Contextual development places these events within the wider development of European exploration and colonial expansion. Chapter 2 develops the history of early American colonial (specifically New Jersey Dutch and English) industry and trade, the largely economic underpinnings of the American Revolution, and impact of the Revolution on the area around the Great Falls of the Passaic. The debates surrounding the governing of the new United States of America serve as context for Alexander Hamilton and Tench Coxe’s vision for American
manufacturing. Chapter 3 covers the establishment of the S.U.M. and the early period of construction of the water-power system, the plan of Paterson, and the early workforce. Chapter 4 delves into the development and innovations of Paterson’s industry, the role of the S.U.M., and immigration through the first half of the nineteenth century. Chapter 5 follows the maturing of Paterson’s industry as the nation’s “Silk City” with some context on the evolution of silk manufactures in the United States. The chapter continues with some brief context on the evolution of the industrial labor movement and details Paterson’s larger labor actions and their effect on the city’s industry. Chapter 6 looks at the role of Paterson manufacturers during World War I and II, the changing face of Paterson’s workforce with the Great Migration, the devastating consequences of the Great Depression and the role of Hinchcliffe Stadium, and the demise of the S.U.M. Finally, as Epilogue, chapter 7 discusses the impacts of industrial outward migration, population changes, industrial pollution, and the course of revitalization in Paterson.

As a result of this study, several interpretive themes stand out for their ability to convey the significance of the Park within the context of American history, given below in a numbered format. Theme #4, “The human story of Paterson,” stands out for its relevance to the movement to acknowledge and include the full diversity of American history.

1. The timeless beauty of the Great Falls as a natural resource and its fragility in the face of human intervention.
2. Alexander Hamilton and Tench Coxe—large-scale manufacturing as a foundation for the US economy, with discussion of the opposing Jeffersonian agrarian view.
3. Waterpower engineering—the design of the S.U.M. waterpower system and hydroelectric plant and how this relates to the mill buildings.
4. The human story of Paterson—Lenape life along the river; Dutch and English farmers who displaced the Lenape and developed the Falls area settlements; the industrial innovators who used the S.U.M. infrastructure to build manufacturing empires; industrial immigration, African Americans, and the remarkable diversity of Paterson. (This should include also the role of women and child laborers, not addressed in-depth in this report; see chapter 7 for recommendations for additional thematic studies).

The history of the Great Falls, the S.U.M., and Paterson is a story of great contrasts—the Lenape’s synergistic relationship with the natural world versus the European drive to harness nature for human use and “progress”; Hamilton’s industrial economic vision versus Jefferson’s agrarian ideal; the division of upper class wealthy owners versus the underclass of industrial laborers. These contrasts play out within the themes highlighted above and provide a tapestry of opposing views for a more inclusive interpretive experience.
LIST OF ABBREVIATIONS

Allied Textile Printers (ATP)
American Federation of Laborers (AFL)
American Locomotive Company (ALCO)
Before Common Era (BCE)
Civil Works Administration (CWA)
Common Era (CE)
Dutch West India Company (WIC)
Emergency Relief Administration (ERA)
Environmental Protection Agency (EPA)
General Management Plan (GMP)
Great Falls Development Corporation (GFDC)
Great Falls/S.U.M. Historic District (GFHD)
Historic American Engineering Record (HAER)
Historic Resource Study (HRS)
Industrial Workers of the World (IWW)
Initial public offering (IPO)
Library of Congress (LOC)
National Archives and Records Administration (NARA)
National Park Service (NPS)
Organization of American Historians (OAH)
Passaic County Historical Society (PCHS)
Public Service Electric & Gas (PSE&G)
Public Works Administration (PWA)
Society for Establishing Useful Manufactures (S.U.M.)
Unites States Geological Survey (USGS)
US Securities and Exchange Commission (SEC)
War Department Light Railways (WDLR)
INTRODUCTION

Whence rushing, tumbling, foaming from on high, PASSAIC, driven with impetuous sweep, Sprang with a scream of horror down the steep; And in the depths of sternly-girdling rock, Muttered deep groans of anguish at the shock…

Flaccus, 1842

Figure 1: Great Falls of the Passaic (Photo by the author, October 2018)

The dramatic spectacle of the Great Falls of the Passaic River, described above by the poet “Flaccus” (Thomas Ward) is, as Jasper Danckaerts described them in 1680, “a sight to be seen in order to observe the power and wonder of God.” At that time (1680) the Falls were located in the wilderness of the North American colonial frontier. The Great Falls today (2019) are all the more striking for their location within the heart of the once thriving industrial City of Paterson. The Great Falls of the Passaic stand as an enduring natural feature around which a pageant of peoples

1 Thomas Ward (Flaccus), Passaic, A Group of Poems Touching that River: With Other Musings (New York: Wiley and Putnam, 1842), 17.

moved, utilized, occupied, and transformed the landscape. From the first Americans–unidentified bands of hunter/fisher/gatherers and later Lenape family groups–through the European colonial traders and farmers, the newly independent American industrial capitalists (Society for Establishing Useful Manufactures, or S.U.M.) and innovators, to the nineteenth and twentieth century immigrant laborers and their twenty-first century descendants, all have left their cultural imprints on the land and the Passaic River. Still the Falls remain, essentially unchanged, “a sight to be seen.”

**Geology of the Great Falls and the Watchung Mountains**

In 1967, the Great Falls of the Passaic (the Falls) was designated a National Natural Landmark.\(^3\) It is the perfectly exposed geology of the ancient volcanic landscape which inspired the designation, and which makes the Falls so dramatic. Sometime in the Late Triassic period, as the super-continent known as Pangea began to break apart, a geologic depression or graben formed, now called the Newark Basin. As the basin began to fill with layers of sand and mud, the tectonic plate movements associated with the breakup of Pangea created great seas of magma below the earth’s surface. In three episodes which occurred over several million years, the magma surfaced through fissures, each time covering the accumulated sediments within the Newark Basin. The cooling lava formed vertical and horizontal stress-relief joints within the deepest mass, while the upper layers formed columns, and at the surface the distinctive pillow lavas formed. Finally, a folding event pushed the basin upward to form an arc. Subsequent weathering of the arc produced the syncline mountains called the Watchungs. The three mountains, known as First Watchung, Second Watchung, and Third Watchung, were formed as the softer sedimentary layers of sandstone and shale eroded. The harder basalt (cooled lava) layers, laid down in the three volcanic episodes, were left exposed as roughly parallel ridgelines.\(^4\) Much of this layering is visible in the north cliff wall of the Valley of the Rocks in Paterson.\(^5\)

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During the last Ice Age, the Wisconsin ice sheet extended as far south as the Watchung Mountains, covering and compressing the northern half of the chain. To the south, Lake Passaic began to form from the glacial runoff. As the glacier receded, the Passaic River began to drain the lake and wend its way across the Watchungs. At the eastern base of Garrett Mountain, part of the First Watchung range, the river encountered

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7 Drachevska, The Geology of Paterson, New Jersey, 2; Scott D. Stanford, “Glacial Lake Passaic,” Unearthing New Jersey 3, no. 2 (Summer 2007), accessed 7/30/2019, https://www.nj.gov/dep/njgs/enviroed/newsletter/v3n2.pdf. The new river may have followed the channels of several ancient pre-glacial rivers that had formed water gaps through the mountains.
a large joint or chasm in the basalt mass, exposed from overlying layers by erosion. The water fell into the narrow chasm, approximately seventy-five feet in depth, pounding onto the sandstone rock floor below before continuing its journey eastward toward the ocean. Over time, the erosive power of the river has caused large blocks of basalt to break off and fall to the riverbed below.\(^8\) Despite this and later impacts by human interventions, the Great Falls of the Passaic River have changed little since they began to flow at the close of the ice age around 13,000 years ago.

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Paterson Great Falls National Historical Park: Significance and Resources

The natural beauty of the Great Falls of the Passaic stands in stark contrast to the urban industrial resources that populate the Paterson Great Falls National Historical Park. The juxtaposition of nature and industry are at the heart of Paterson’s history, and in fact, at the heart of much of US industrial history. It was waterpower that drove the wheels of American colonial and early republic mills and furnaces. The Paterson raceways and other water power structures exemplify the development of industrial power technologies in the eighteenth and nineteenth centuries. After the 1967 designation of the “Great Falls of Paterson” National Natural Landmark (Garrett Mountain was added in 1976), the “Great Falls of the Passaic/Society for Establishing Useful Manufactures Historic District” (Great Falls/S.U.M. Historic District or GFHD) was listed on the National Register of Historic Places in 1970. In 1976, the GFHD was expanded and designated a National Historic Landmark (NHL), and in 1985, the district boundary was again enlarged. The 1985 boundary expansion provides the most-succinct Statement of Significance for the NHL district:

The Great Falls/S.U.M. Historic District contains one of the most significant engineering and industrial complexes in the United States. Alexander Hamilton and other supporters organized the Society for Establishing Useful Manufacturers [sic] to achieve America’s independence from British manufactures and demonstrate her own profitability. With the major water power to be harnessed from the Great Falls of the Passaic River, and the original engineering plan of Pierre Charles L’Enfant, Paterson developed into an important eighteenth and nineteenth century industrial center for cotton, silk, iron and locomotive production.9

The significance of the Paterson Great Falls National Historic Park, as stated in the “General Management Plan” (GMP, 2016), expands upon the NHL district statement, addressing the potential for the Park’s resources for interpretation and to enhance the visitor experience:

• The Great Falls of the Passaic River, with its natural chasm and 77-foot waterfall, provides an extraordinary scenic resource in the midst of an industrialized city and opportunities for relaxation, contemplation and inspiration.

• Paterson Great Falls National Historic Park and the National Historic Landmark district provide one of the best opportunities to view a complete hydropower system from its source above the Great Falls of the Passaic to its transformation into power for the mills and the surrounding community.

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Introduction

Alexander Hamilton’s vision of a model manufacturing city, a central part of his economic strategy for the nation, is embedded in this industrial, cultural and natural landscape.

- Paterson’s raceway system illustrates American ingenuity as the country grew to become a major industrial nation. The raceways offer an outstanding opportunity to interpret the city’s industrial past and the Society for Useful Manufactures’ [sic] role as a manufacturing incubator making it possible for immigrants to start businesses with limited resources and capital.

- The entrepreneurship and innovations of Paterson’s industrialists and workers allowed the city to thrive and evolve over time in a long continuum of industrial use which continues today. Paterson’s success can be attributed in large part to immigrants who brought their creativity and experience to the city seeking a better life; a trend which has continued throughout the city’s history.

- Hinchliffe Stadium is one of the best examples of a professional Negro League baseball venue. The location of the stadium was specifically sited above the Great Falls so patrons could have a commanding view of Paterson’s ever-evolving industrial, social and natural landscape.  

The Park boundaries encompass approximately fifty-two acres, including the resources that best represent the nationally significant themes stated in the GMP.

The following natural and cultural resources are located within the Park boundaries (Figures 4 and 5) and are here identified as either contributing or non-contributing to the significance of the Park. Resource descriptions are quoted from the “Paterson Great Falls National Historical Park, Draft General Management Plan,” January 2016 (#s 1-4) and the 2017 NHL Cultural Resource Inventory (#s 5-19 and 21-24), unless otherwise noted:

1. The Great Falls of the Passaic River—Including the chasm, waterfall, and the Passaic River as it flows through the park. [contributing]

2. Valley of the Rocks—A natural area downstream of the Great Falls, along the northern bank of the Passaic River. [contributing]

3. Mary Ellen Kramer Park—Community parkland with viewing areas and trails at the top of the falls; also includes the Great Falls Development Corp. building and Pump House. [contributing]

4. Overlook Park—The primary overlook of the Great Falls, also includes the S.U.M administration building (currently park headquarters) and steam plant foundation. [contributing]

5. S.U.M. Upper Raceway and Tailrace—The S.U.M. Upper Raceway begins at a lock located at the S.U.M. Gatehouse. It travels east and then southeast to the Dolphin Mills Complex before becoming a tailrace (via a concrete spillway reconstructed in 1982) that loops back up to the northwest, continuing behind Rogers Locomotive Co. buildings on the west side of Spruce Street and ending near Ivanhoe Wheelhouse. The raceway’s walls were constructed of brown sandstone, concrete, and natural rock, and its bottom was lined with a mixture of clay and sand. A penstock which runs underneath McBride Avenue is visible immediately to the east of the S.U.M. Gatehouse, below the spillway to the Middle Raceway. An elevated walking path which begins to the south of the intersection of McBride Avenue and Spruce Street overlooks this drop between the Upper Raceway’s tailrace and the Middle Raceway and continues to the Rogers Locomotive storage building (not included in Park boundary) before crossing over to another area of the Upper Raceway. The Upper Raceway was the last of the S.U.M. raceways to be constructed. To build this section, the S.U.M. raised the level of an earthen embankment which blocked water from leaving a nearby reservoir. Leakage problems led the S.U.M. to alter the water’s path in 1838 by creating a new masonry dam downstream of the wooden one which it replaced; this alteration made the reservoir obsolete, although it was not filled in until 1846. [contributing]

6. S.U.M. Gatehouse—The S.U.M. Gatehouse is a single-story board and batten building set over the lock which forms the beginning of the S.U.M. Upper Raceway, at the intersection of McBride Avenue and Spruce Street. It is located below street level, supported by a brown sandstone wall on its southern end and by concrete on its northern end. The entrance is on the west elevation and can be accessed by a non-historic set of stairs and small bridge which connect it to McBride Avenue. The building has a standing seam metal roof, and its window openings have been boarded shut. This S.U.M. gatehouse was constructed upon the removal of a reservoir which had been part of the S.U.M. raceway system until 1838, when a dam in the Passaic River made it obsolete. [contributing]

7. Ivanhoe Wheelhouse—The Ivanhoe Mill Wheelhouse is located on the west side of Spruce Street, where the Upper Raceway’s tailrace drops through a spillway to the Middle Raceway. The front (east) section of the wheelhouse is a single-story structure with a shed roof. It has entrances on the northeast (Spruce Street) and northwest elevations. The back (west) section of the building stands on an arched foundation which follows the path of the Upper Raceway’s tailrace, which ran from south to north, parallel to the primary section of this raceway. A circular infilled opening on the northwest elevation of the Ivanhoe Wheelhouse
indicates where the Upper Raceway penstock once entered the back section of the building. This building provided power to Ivanhoe Mill (no longer standing), which was built circa 1850 by H. V. Butler and Company. In 1866, the company merged with or was incorporated into Ivanhoe Manufacturing Co., and Henry V. Butler became the company’s president. Ivanhoe Wheelhouse contained three turbines which supplemented the steam-powered engines within Ivanhoe Mill. Ivanhoe Manufacturing Co., which produced paper, defaulted on its mortgage in the 1880s and the property went through the ownership of several different companies before being sold to the S.U.M. in 1901.

8. Rogers Locomotive Co. Erecting Shop—The Rogers Erecting Shop, located at the southeast corner of Spruce and Market Streets, is a 3.5-story brick building which extends approximately 220 feet along Spruce Street. Its current primary entrance is located in the southernmost bay of the southwest elevation, which comprises thirteen bays in total. Each of the other twelve bays features a large set of doors at the first story, topped by paired transoms and metal lintels with decorative rosettes. The second and third stories feature sash windows separated by brick piers. A stone date marker near the center of this elevation reads “1835 Rebuilt 1874 Rogers Locomotive & M. Works.” A monitor roofline runs the full length of the building, above a decorative brick cornice. The building’s northwest elevation is similar in form to that of the Ryle Union Works building across Market Street (not within Park boundaries): it is five bays wide, and the central bay has a large hoisting pier in the gable’s peak. A two-story end-gabled structure is attached to the building’s northwest elevation and is in ruinous condition. This building is the oldest extant structure within the Rogers Locomotive Company complex. The double doors on the primary elevation enabled the transport of finished locomotives out of the building. It now hosts the Paterson Museum.

9. Visitor Center—This single-story frame building is located on the southeast corner of the intersection of McBride Avenue and the McBride Avenue extension. It is set back from the street and faces northwest, toward the intersection. A parking lot occupies most of the parcel, and the S.U.M. Middle Raceway runs behind the building along the former Passaic Street. This building has painted board and batten walls and a projecting shed roof which is supported by painted wood corbels. The primary elevation is three bays wide and includes a central entrance which protrudes slightly from the building, with projecting windows on either side.

10. S.U.M. Middle Raceway—This is the oldest section of the S.U.M. Raceway system. It begins at the spillway next to the Ivanhoe
Wheelhouse and continues northeast under Spruce Street and along the former Passaic Street. It turns to the north behind Hamilton Mill (not within Park boundaries), crosses under McBride Avenue Extension, and reaches the spillway to the lower raceway in the ATP (Allied Textile Printers) site. The Middle Raceway’s tailrace follows the western side of Mill Street, although it is only visible in front of the Hamilton Mill Site. The Middle Raceway’s walls are sandstone, natural embankment, and concrete, and the bottom was likely soil and mud over sand. Foundations of former buildings form part of the raceway’s wall along Passaic Street. The Raceway is cluttered with debris. [contributing]

11. Middle Raceway Tailrace—The Middle Raceway’s tailrace is daylighted along the western side of Mill Street, from the McBride Avenue Extension to the S.U.M. Passaic Street Bridge. It continues underground along Market Street. The tailrace features stone walls, and its bottom is overgrown with brush and littered with debris. The front portion of the Hamilton Mill building bridges the tailrace and abuts the sidewalk. At various intervals, semicircular openings in the stone walls of the tailrace, extending under buildings such as the Hamilton Mill, have been infilled. [contributing]

12. Middle Raceway Gate House [listed as “Single-story Structure on the Middle”] This gable-roofed brick structure is located over the Middle Raceway, before it curves to the north behind the Hamilton Mill Building. It is supported by metal I-beams resting on the Raceway’s stone walls. Its primary (southeast) elevation faces a pedestrian path which runs along the former Passaic Street, separating this building from the Danforth and Cooke Building. [contributing]

13. Passaic River Dam—The S.U.M. constructed this dam in 1838 to replace an earlier one which had been located further upstream. This rendered a preexisting reservoir (located southeast of the dam) obsolete, resolving issues of leakage at that site. An additional three feet of height, composed of stone with wooden flashboards, was added to the dam in 1864, and further alterations were made in 1868. A small section of bridge survives above the dam. [contributing]

14. Hydroelectric Plant—The hydroelectric plant is located on the eastern side of the Passaic River, below the Great Falls and down a steep slope from McBride Avenue. The building’s primary elevation faces south, and its west elevation is constructed into the rock face. A six-story brick stair tower is located at the southwest corner of the building, abutting the primary elevation and the rock face and providing access to the building from above the falls. The tower is capped by a standing seam metal roof. The primary elevation features a central door with a large arched transom above, separated by a stone date plaque which reads
“1791 S.U.M. 1914.” Also on this elevation, a round window is set into the gable. The east elevation is five bays wide and features large arched windows which extend nearly the full height of the interior space. The stone cornice’s decoration is similar to that on the field house, which is part of the same complex, and of the S.U.M. administration building, which overlooks this structure from McBride Avenue. Penstocks on the western side of the structure capture water from above the falls, which travels through rock at the river’s bend and falls sixty-seven feet to the plant. The generator room originally held S. Morgan Smith horizontal-shaft double-runner turbines. One older turbine remains; all other turbines have been replaced with modern equipment. [contributing]

15. Field House—The field house is a single-story brick building which is part of the hydroelectric plant complex, located at street level above (and southwest of) the main plant building. Its primary entrance is on the north elevation, where a large door would have allowed for large equipment to be transported into and out of the building. The end-gabled building features a stone cornice and sills. The windows have been boarded shut. [contributing]

16. Great Falls Arch Bridge—The Great Falls Arch Bridge overlooks the Great Falls of the Passaic River. It extends from the upper level of the S.U.M. hydroelectric plant and field house on the eastern side of the river to Mary Ellen Kramer Park on the western side. (Due to the bend in the falls at this point, the bridge actually extends south-north.) The current water main, running parallel to the bridge, is a replacement of an earlier pipe which was part of the Passaic Water Company’s system. When it was replaced in 1983, a deck for pedestrian access was removed. [contributing]

17. Steam Generating Plant Foundation—Overlook Park’s parking lot is supported by the foundation of the 1915 steam plant, which was constructed shortly after the hydroelectric plant to supply power during periods when the water level was too low and insufficient to generate electricity. The steam generating plant building was struck by lightning in 1958 and demolished soon after that, leaving only the two-story foundation wall. [contributing]

18. S.U.M. Administration Building—The two-story S.U.M. Administration Building is located immediately to the north of the intersection of McBride Avenue and Spruce Street. The building is brick, and it features a stone cornice under a side-gabled roof. The stone decoration along the cornice is similar to that on the S.U.M. Hydroelectric Plant and Steam Generating Plant [no longer standing]. The primary (east) elevation is three bays wide, with an entrance in the central bay which is sheltered by a flat cantilevered metal roof above. Both stories have wooden sash
Introduction

windows, in a one over one configuration on the first story and a nine-over-one configuration on the second. The primary elevation faces Overlook Park’s parking lot, and a path extends from McBride Avenue along this elevation to a viewing area which overlooks the Great Falls. [contributing]

19. S.U.M. Lower Raceway—The S.U.M. Lower Raceway begins at the ATP site and extends along the northern side of Van Houten Street. Some of the industrial buildings on the street extend over the raceway, while others are set back from the street and accessible by bridges. The raceway features stone walls, and its base is overgrown with vegetation (grass in most areas) and littered with debris. [contributing]

20. Allied Textile Printers Site and Ruins—The ATP site is currently a ruin, ravaged by a series of fires occurring after industrial activity ceased in 1982. Nonetheless it contains many notable features of historical and archaeological significance including waterpower features such as raceways and wheelpits, a quarry, the ruins of at least five water-powered nineteenth-century mills, two steam plants with smokestacks, and the ruins of extensive textile dyeing and finishing operations which occupied a large portion of the property from the 1910s to 1980s. A centerpiece of the ATP site is the Colt Gun Mill, an industrial site with nationally significant associations. The brownstone mill building (now a shell) was built in 1837 to produce Samuel Colt’s famous revolver and was the place where John Ryle established what would become Paterson’s world renowned silk industry in 1840…. Within the site limits are several key properties, the most important of which are the Colt Gun Mill, the duck mill (Passaic Mill No. 1), the Todd Mill, the Mallory/Waverly Mill and the older sections of the dye works located along the riverbank. There are numerous locations throughout the site of archeological sensitivity including possibly a late-eighteenth-century sawmill site and an early nineteenth-century nail mill, not to mention the various arteries of the S.U.M. waterpower system expressed in the form of raceways, gates and wheel pits. [contributing]

21. Raceway Footbridges—Several small bridges provide access over the raceways, linking the mills with their adjacent streets. These include: several bridges to the ATP site along the bend in Van Houten Street; two bridges to Phoenix Mill (not within Park boundaries); one bridge which transitions to an alley between Harmony and Industry Mills (not within Park boundaries); and one bridge over the Upper Raceway by the Rogers Locomotive Company Frame Fitting Shop and Administrative Building (not within Park boundaries). This last footbridge may correspond to the location of a flume which was part of the Upper Raceway

11 Hunter Research, Allied Textile Printers, Cultural Resource Study, Volume II.
Introduction

22. Conduit Gate House—This single-story brick building has a steeply-pitched hip roof with hexagonal slate shingles. The building features a polygonal annex on the building's southeast side, and the annex includes the building entrance. Two rows of glazed header brick courses form a semicircular arch over the door, and additional glazed and painted bricks form belt courses on both the annex and the primary structure. The building's windows are arched, and the northeast and southwest elevations each have two shed dormers. The building was identified as a machine shop and meter testing site on a 1915 Sanborn map. It is currently located within the boundaries of Mary Ellen Kramer Park. [Note: this building does not appear on the 2016 Draft GMP site map] [contributing]
Figure 4: Paterson Great Falls National Historical Park Site Map, showing resources located within the park boundaries. (GMP, 2016)
23. Remains of 1876 Steam and Boiler Plant—The remains of this single-story brick building are located in Mary Ellen Kramer Park. It has stone and glazed-brick belt courses, as well as additional glazed bricks which form diamond patterns on the northwest and southeast elevations. The cornice, which is below a wooden fascia, includes bricks laid in dogtooth and dentil courses. The building’s primary entrance is located on the northeast elevation, with a modern sign above the door which reads “Great Falls Development Corporation” and another above the central paired windows which reads “Great Falls Park.” A rolling garage door on the northwest elevation allows for equipment to be transported into and out of the building. This building was part of the Passaic Water Co. pumping station, which was linked to the company’s reservoirs and facilities on the western side of the Passaic River. [contributing]

24. Passaic Water Co. Pump House—Passaic Water Co.’s pump house is set into the slope below Maple Street, in what is now Mary Ellen Kramer Park. It is a brick structure with a central protruding section. On the right side of this section is a plaque reading “Passaic Water Company 1878 John Ryle President.” This structure was part of the Passaic Water Co.’s pumping station, located adjacent to the steam and boiler plant. [contributing]

25. Hinchliffe Stadium—Hinchliffe Stadium is a cast concrete open-air stadium located at the southeast corner of Liberty and Maple Streets, on the western side of the Passaic River and adjacent to Mary Ellen Kramer Park. It measures 440 by 417 feet, with rounded corners. At the west and north corners of the stadium, pairs of entrances are articulated with the inscription of “Hinchliffe Stadium” and flanked by small hipped-roof structures which served as offices. The perimeter of the stadium features regularly-spaced piers, which are stepped up to follow the street grade and topped with terra cotta coping. Circular ceramic medallions on these piers depict the four field events of the classical Olympic games (relay, javelin, hammer, and discus). The stadium is located over the location of one of three reservoirs which were on this side of the Passaic River. It is one of the only extant regular home fields of a Negro League Team in the region. In 2013, it was individually listed as a National Historic Landmark. [contributing]

26. Mount Morris Quarry—The substantially quarried remnant of the rock outcrop known as Mount Morris is located on the south(west) bank of the Passaic River northeast of Overlook Park. The quarry site included a rock-crushing mill and was later entirely occupied by the Standard Silk

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Dyeing Company, and is included within the ATP site boundary. The south(west) cliff wall of the quarry provides a view of the geologic history of the Passaic valley. The quarry site is currently (2019) overgrown. [contributing]

27. The “Deer’s Leap”—As described by local historian William Nelson in 1882: “The narrow point of rock projecting toward Spruce street, between the chasm and the back-race, was in the early days known by the whites as the Deer’s Leap.”[13] [contributing]

28. Remnant wall of the “Yellow Mill”—A brown sandstone block wall section, visible within the courtyard of the Essex Mill Apartments on Mill Street, is thought to be oldest extant mill element in the district. [contributing status unclear]

When the S.U.M. ended its 153-year corporate run in 1945, the remaining S.U.M.-owned property was transferred to the City of Paterson. Though there were interim owners of a few of the parcels, today (2019) much of the land and resources remains in the ownership of the City of Paterson, including the ATP site, the Rogers Locomotive Erecting Shop, Overlook Park, hydroelectric plant, and Mary Ellen Kramer Park. As per the language of the Park’s enabling legislation (Appendix H), the NPS will acquire “sufficient land or an interest in land within the boundary of the Park to constitute a manageable unit.”[14] Thus, according to Park Superintendent Darren Boch, “the NPS only intends to acquire Mary Ellen Kramer and Overlook Parks, with all other resources within the boundary retained by the city of Paterson and managed compatible with the purposes of the national park.”[15] Currently the NPS has title to the Visitor Center and its half-acre parcel. Future plans include the acquisition of Overlook Park in 2020, with Mary Ellen Kramer Park coming later. Hinchliffe Stadium is expected to remain in the possession of the Paterson School System. At least part of the Valley of the Rocks is owned by the Passaic Valley Water Commission, while the Passaic River and Great Falls are under State of New Jersey jurisdiction.[16] The legislation specifically calls for cooperative agreements among the interested parties to manage NPS access to the properties for public interpretation and to assist in preservation projects. See chapter 7 for more information about the evolution of the Paterson Great Falls National Historical Park idea.

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The Great Falls of the Passaic are surrounded by the city of Paterson, situated within the bustling greater New York metropolitan area, and yet the Falls continue to dazzle the senses as an example of the raw power of nature, just as Jasper Danckaerts saw them in 1680. It is fitting then, that the natural beauty of the Great Falls of the Passaic be preserved, like Yellowstone, Yosemite, and the Grand Canyon, as a National Park, along with the human history—fleeting in the lens of geologic time—which surrounds it.

Figure 5: 2007 aerial photograph of the ATP site, showing site boundary and locations of ruins. (Hunter Research, *ATP CR, Volume I*, citing New Jersey Department of Environmental Protection)
CHAPTER 1

PEOPLING THE GREAT FALLS OF THE PASSAIC LANDSCAPE

I have not written to excite astonishment, but for the information of those who are desirous of knowing the true history of those people, who, for centuries, have been in full possession of the country we now inhabit. . . .

John Heckewelder, 1817¹

Introduction²

The Mid-Atlantic region, stretching from New York to North Carolina, was occupied by people—the first Americans—for thousands of years before European explorers, traders, and settlers arrived and claimed the newly “discovered” land. By the late sixteenth century, indigenous American tribal groups or associated bands had established a well-developed network of territories in which they lived, hunted, traded, and over which they waged wars. Alliances between groups were formed over shared language, kinship, trade, or common enemies.

The Lenape (Lenni Lenape or Delaware) who occupied the lands later called New York, New Jersey, Pennsylvania, and Delaware, were a loose affiliation of kinship bands. Much of the land they occupied was located along the Mahicantuck (Hudson River) and Lenapewihituck (Delaware River), and their drainages, including the Pasaic or Pasáiek (Passaic River).³ The Lenape viewed the land as sacred, given to them by Mannito


² This Introduction and the following summary contexts—Algonquian Roots; Peoples of the Mid-Atlantic before 1650; Lenape of the Mid-Atlantic, CE 1600 to 1650; and European “Discovery” and Settlement, The Anglo-Dutch Wars and a Renewed British Claim—are taken in part from the Lenape and European Contact contexts developed for First State National Historical Park Historic Resource Study (Paula S. Reed and Edith B. Wallace, First State National Historical Park, Delaware, Historic Resource Study, September 2018).

The vast history of the first Americans, the peoples living on the North American continent before European contact, is a significant segment in the continuum of American history. Though largely unwritten, this early cultural record is chronicled in oral traditions handed down over the millennia, while some is discernable through the journals of the earliest European explorers, and some is physically preserved in the ground awaiting archaeological investigation. Later European settlers’ cultural adaptations also provide clues to pre-contact lifeways. American roads often trace ancient paths along the easiest, driest, or most direct routes. Many American place-names and other common words draw heavily upon the indigenous languages. Corn, beans, squash, and tobacco were indigenous cultivars adopted by European emigrants. These products helped the new arrivals to survive and even became the foundation of a thriving colonial economy.

Algonquian Roots

The Algonquian language group, of which it is said the Lenape are “the Grandfathers,” is the largest American Indian language group in North America. Today described as “the Algic family of languages,” some linguists locate the genesis of the language somewhere in the area of the Great Lakes. From there, dialect groups fanned out through much of southern and eastern Canada, along the length of the Mississippi as far south as Tennessee, to New England, eastern New York, New Jersey, the Mid-Atlantic, and south along the coast to North Carolina, and even as far west as the Great Plains and California. Thirty-nine Algonquian dialects have been identified by linguists, including two Lenape dialects (Munsee north of the Raritan River and Unami to the south), nine Cree dialects, seven Ojibwe, also “Kickapoo, Menominee, Meskwaki Sauk (Sac and Fox), Miami-Illinois, Potawatomi, Shawnee, Abnaki-Penobscot, … Maliseet-Passamoquoddy, Mi’kmaq, Arapaho, Gros Ventre, Blackfeet, and Cheyenne, as well as Wiyot and Yurok,… Virginian and Carolinian Algonquian, Mohegan-Pequot, Mahican,

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4 Heckewelder, An Account of the History, 114. Heckewelder was a Moravian missionary who lived among the Lenape in the eighteenth century.


6 Brian Swann, ed., Algonquian Spirit (Lincoln: University of Nebraska Press, 2005), xii; see also Lyle Campbell, American Indian Languages: The Historical Linguistics of Native America (New York: Oxford University Press, 1997), Map 11, 361. According to Swann, the Algic language family began its development around 3000 years ago. The Unami dialect is further divided into Northern Unami and Southern Unami.
Massachusetts-Narragansett, and Wampanoag.” John Heckewelder described the Lenape Unami dialect, spoken by the Lenape who lived primarily in southern New Jersey, southeastern Pennsylvania, and northern Delaware, as “the purest and most elegant dialect” and thus likely “the head of the national family” or the “grandfather” of other Algonquian-speaking tribes.

According to the Lenape migration legend, as retold by Heckewelder in 1817, Lenape groups began arriving in the Mid-Atlantic region sometime after approximately CE 500. This migration would have occurred during the Middle Woodland cultural period (CE 1 to 1000), as defined by archeologists. To date, the archeological record of the Mid-Atlantic does not indicate an identifiable inward migration of people during the Middle Woodland period, and thus does not currently provide scientific support for the Lenape migration story. The archeological record does indicate that the region was occupied long before the Middle Woodland period by unidentified groups, who may or may not be Lenape ancestors.

Peoples of the Mid-Atlantic before 1650

The people living in the Mid-Atlantic region before contact with European explorers, traders, and settlers left clues to their lifeways, cultural markers which survive in archeological contexts. Most commonly these are stone (lithic) tools, particularly projectile points which appear to follow identifiable stylistic trends. Archeologists divide the thousands of years of human occupation into cultural periods, largely based on changes in living patterns typically triggered by changes in the climate and surrounding ecology.

Archeological evidence of early human occupations in the Mid-Atlantic are documented to a greater degree in parts of New York, Pennsylvania, and Delaware. In New

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7 Swann, *Algonquian Spirit*, xii. Some languages formerly considered “extinct” are now being revived through tribal efforts.


9 Heckewelder, *An Account of the History*, 47–51. The dates of Heckewelder’s original manuscript (1817) and its publication (1819) are important because it pre-dates the 1830s publication of Rafinesque’s purported translation of the *Walam Olum*, which he claimed to be from Lenape stick pictographs and a written manuscript. The *Walam Olum* was proven to be a hoax in 1994 by David M. Oestreicher (see Oestreicher, “The Tale of a Hoax,” in Swann, *Algonquian Spirit*, 3). Heckewelder’s story indicates that the Lenape migration oral tradition existed before the hoax perpetrated by Rafinesque.

10 BCE (Before Common Era) corresponds to BC; CE (Common Era) corresponds to AD. New Jersey archeologist Herbert Kraft identified the cultural periods as Paleo-Indian, ca.10,000 to ca. 8000 BCE; Early Archaic, ca. 8000 to ca. 6500 BCE; Middle Archaic, ca. 6500 to ca. 4000 BCE; Late Archaic, ca. 4000 to ca. 2000 BCE; Terminal Archaic, ca. 2000 to ca. 1000 BCE; Early Woodland, ca. 1000 BCE to ca. 0; Middle Woodland, ca. CE 1 to 1000; Late Woodland, ca. CE 1000 to ca. 1650; Historic Contact, ca. CE 1650 to ca. 1700. Herbert Kraft, *The Lenape-Delaware Indian Heritage: 10,000 BC to AD 2000* (Lenape Books, 2001), 34.

Peopling the Great Falls of the Passaic Landscape

Jersey, documentation of sites along the Delaware River is better than sites on the coast and in northern New Jersey. Industrial development along the Passaic River, particularly in and around Paterson, occurred before the modern archeological methods of systematic survey and excavation. Therefore, most of what is known currently about prehistoric human occupations in the Paterson area is based upon surface collections completed in the nineteenth and early twentieth centuries. In 1912, under the direction of the New Jersey State Geological Survey, archeologist Max Schrabisch investigated an estimated 370 sites in northern New Jersey, twenty-five of which were located in the Paterson area (see discussion below). Relying largely on surface collection, the sites discovered by Schrabisch represent mostly historic period Lenape occupations, though some probably included earlier components below the surface. The Paterson Museum holds the voluminous personal collection of Carl Schondorf, including artifacts collected by Schrabisch, which is currently being cataloged and interpreted by archeological consultant Anthony DeCondo.

The Paleo-Indian Period began approximately 10,000 BCE (Before Common Era) and lasted to about 8000 BCE. Archeologists consider Paleo-Indians to be the first humans who occupied the Mid-Atlantic region. As with much of the continent, the earliest cultural materials at the New Jersey sites were Clovis fluted points. These lanceolate-shaped spear points, with long hafting channels called “flutes,” were particularly suited to hunting the large game found in the cold, mixed grassland/boreal/deciduous environment of the Mid-Atlantic at the end of the Pleistocene Epoch. In the Piedmont region of northern New Jersey, the shrinking Glacial Lake Passaic and Glacial Lake Hackensack became marshlands attractive to game animals, waterfowl, and a variety of wild plants. It was a climate still influenced by the retreating glacier, however, notes New Jersey archeologist Peter Pagoulatos, making resources “seasonally unpredictable and widely scattered across

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13 Skinner and Schrabisch, Bulletin 9, 34. Dorothy Cross’s 1941 survey of New Jersey sites included excavation at thirty-nine sites across the state.


15 Kraft, The Lenape-Delaware Indian Heritage, 48, 56–57; large animals in northern New Jersey included elk, white-tailed deer, caribou, mammoth, and mastodon (Pagoulatos, “Paleoindian Site Location in New Jersey,” 125).

16 Pagoulatos, “Paleoindian Site Location in New Jersey,” 130. While hunting played a large role in the Paleo-Indian diet, evidence of plant remains were found in a hearth at the Shawnee-Minisink site in the Upper Delaware Valley of Pennsylvania, where Clovis points were also found. Plant remnants found in the hearth included grape, amaranthus, blackberry, smartweed, ragweed, sedge, hackberry, and hawthorn plum; fish bones were also found. (Custer, Prehistoric Cultures, 94–97)
the landscape.”¹⁷ Thus, it appears that Paleo-Indians of the Mid-Atlantic subsisted following a highly mobile, seasonal, hunting and gathering lifeway, requiring a small group social organization likely structured around family units. Three Paleo-Indian sites have been identified on the Passaic River drainage (EX 1, MR 193, NJ-456), each with a fluted point, “and small amounts of waste flakes, reflecting specialized tool making and hunting loci.”¹⁸

Beginning around 9700 BCE, the Holocene Epoch brought in the temperate climate we experience today in the Mid-Atlantic region. By about 3000 BCE, the rising Atlantic Ocean waters inundated the lower Hudson, Delaware, and Susquehanna rivers, forming the estuarine bays known today as the Hudson Bay, Delaware Bay, and Chesapeake Bay and their adjoining tidewater environments defined as the Coastal Plain. Above the fall line, the point at which the relatively flat Coastal Plain ends and the land begins to rise, the hills and valleys of the freshwater Piedmont stretch toward the Allegheny Mountains.¹⁹

The Archaic Period (Early—8000 to 6500 BCE; Middle—6500 to 4000 BCE; Late—4000 to 2000 BCE; Terminal—2000 to 1000 BCE) is marked by new adaptations to the environmental changes associated with the Holocene Epoch. After the glaciers receded sufficiently far north that they no longer influenced the environment of the Mid-Atlantic, a period of warmer temperatures accompanied by a wetter climate altered the landscape. The open grasslands favored by large grazing animals such as bison and moose gave way to deciduous forests, home to elk, deer, and other smaller animals.²⁰ The appearance of relatively small, bifurcate (stemmed with a bottom notch) spear points, possibly associated with the development of the atlatl or spear-thrower, were more effective with smaller, faster game. Heavy ground-stone tools appear in Middle to Late Archaic Period assemblages which reflect the increasingly resource-rich deciduous environment. Axes and adzes were woodworking tools; grinding stones (mullers) and mortar and pestles served to process a variety of plants and possibly nuts.²¹ Netsinkers and the occasional harpoon point indicate a growing technology around fishing; however, New Jersey archeologist Herbert Kraft cautions that “little direct evidence for Archaic fishing practices” in the Mid-Atlantic region has been found.²²

¹⁷ Pagoulatos, “Paleoindian Site Location in New Jersey,” 123.
¹⁸ Pagoulatos, “Paleoindian Site Location in New Jersey,” 130.
²⁰ Kraft, The Lenape-Delaware Indian Heritage, 92.
²² Kraft, The Lenape-Delaware Indian Heritage, 128. The V-shaped, stone fish weirs along the Passaic River are not currently definitively dated and many archeologists, including Kraft (citing Robert E. Funk), caution that “they may have been used by historic Euroamericans to lift boats over rapids.” (Kraft, The Lenape-Delaware Indian Heritage, 129)
The addition of the less-portable ground stone tools is indicative of a somewhat more settled lifeway made possible by improved environmental conditions. Archaic Period base camp sites in the Mid-Atlantic indicate larger groups than the Paleo-Indian encampments. These larger sites are found in floodplain settings along the larger rivers. Smaller, hunting and plant gathering sites are found outward from the primary camps, following the seasonal cycles within territories. Five Archaic Period sites are clustered in the northeast New Jersey region around the Passaic River: Towaco/Two Bridges, Pine Brook, Singac, Totowa, and Pompton Lakes. The Schondorf Collection at the Paterson Museum includes projectile points dating from the Archaic Period, with the bulk of the points associated with Late Archaic occupations.

Figure 6: Carl Schondorf’s lithic collection chart. (Paterson Museum)


24  Kraft, *The Lenape-Delaware Indian Heritage*, Figure 4.2, 91. Kraft notes in Chesler (page 62) that the Pine Brook site (O’Dowd Farm Site) was surface collected, but “no scientific archeological excavations have ever been conducted in this area.”
The Woodland Period (Early—1000 BCE to 0; Middle—CE 1 to 1000; Late—CE 1000 to 1650) marks the shift to a broad range of subsistence strategies in the Mid-Atlantic region. In general, settlement patterns change only slightly with continued use of high productivity areas (floodplains and marsh/swamps) for extended occupations. However, over much of the region there is evidence during the later period of increased sedentism associated with the development of agriculture. While some Terminal Archaic Period (2000-1000 BCE) sites included steatite (soapstone) bowls or cooking vessels, ceramics proliferated during the Woodland Period and took on regional identities. The small triangular points associated particularly with the bow and arrow became nearly exclusive in hunting toolkits during the Late Woodland Period.\(^{25}\)

The Piedmont landscape of the Mid-Atlantic through the Woodland Period was covered with dense deciduous forests, dominated by the American chestnut and varieties of oak. Nuts, berries, and foliage in the undergrowth provided food for turkey, deer, elk, bear, squirrels, beaver, and other small animals.\(^{26}\) The forests were broken by swift-flowing creeks and rivers, tributaries of the larger rivers bound for the tidal bays. Freshwater creeks and rivers teemed with fish throughout the year, joined by the annual spawning runs of anadromous fish. This was an environment fully suited to a seasonal hunting and gathering lifeway, but was equally suited to agricultural adaptations, allowing for longer stays at summer basecamps.

In his 1913 official report, Schrabisch identified twenty-five sites in and around Paterson. Though not specifically identified with a cultural period, it is likely these sites had Woodland components:

Four sites have been found on the west side of the city, called Totowa, on the flats extending north of the river to the foot of Totowa Hill.

There was a site at the Falls, another on Paterson Island and a ford [or fish weir] crossed the river below Main Street Bridge.

Along the northernmost course of the river there occur the following: a camp on Bunker Hill, a ford north of it two fords between Wagaraw and Fifth Avenue Bridges.

There are twelve camp sites and one ford between Broadway and Wesel Bridges along the west bank of the river. All the sites given under the side heads of Singac, Little Falls and Paterson are in Passaic County.\(^{27}\)

\(^{25}\) Dent, Chesapeake Prehistory, 226–227; Kraft, The Lenape-Delaware Indian Heritage, 137, 184, 205–206.

\(^{26}\) Kraft, The Lenape-Delaware Indian Heritage, 209.

\(^{27}\) Schrabisch, Bulletin 9, 76–77. Though none of these sites are identified with a particular cultural period by Schrabisch, it is likely that most of the surface or near-surface components are Woodland Period. It is also possible that Archaic, and possibly Paleo-Indian layers were buried below but not investigated.
Three rock shelters were located on Garret Mountain: “at the northern extremity of Garret Mountain, one of these is at the foot of Garret Rock, the others on the eastern slope of the mountain, on Catholina Lambert’s estate, South Paterson.”

Schrabisch’s notation of five “fords or weirs” in his 1913 report is a reference to the stone V-shaped structures which crossed the Passaic River at various points. He described them as “evidence of the Indian’s activity.” The editor of the report, State Geologist Henry B. Kümmel, added this caution in a footnote: “The fact that many similar rock fords and weirs have been constructed by white men must not be overlooked. The mere occurrence of V-shaped lines of rock in streams cannot be regarded as proof of Indian workmanship without some independent evidence which shall differentiate them from those of the white man. —H. B. K.”

In 1924, a projectile point and two knife fragments were discovered on the north side (Fair View) of the river, “opposite the foot of 3rd Ave.,” near one of the V-shaped structures, providing some evidence that the structure may indeed have been constructed and used by Woodland or Lenape bands.

The lack of direct evidence for pre-European Contact occupations in the area of the Great Falls and the City of Paterson is likely because of the extensive industrial development along the river, without prior archeological investigation, where sites were likely to be located. Schrabisch wrote in 1913:

There is no doubt that the territory now occupied by the City of Paterson was once a favorite resort of the Indian, and this assumption is amply borne out by the traces of prehistoric activity discernible to this day. Again, it is certain that in the course of building operations many sites, including even rock shelters, have forever been obliterated.

The presumed destruction of archeological sites in and around Paterson is a setback for the understanding of pre-contact occupations in the area. However, the study of datable projectile points within the collections of Schrabisch and Schondorf provide evidence for predictive modeling of Early/Middle Woodland sites within the Passaic River Valley:

Kinsey (1972: 368) has noted the similarity of the ceramics of the Bushkill Complex to those of coastal New York, where Rossville points also occur. A typological analysis of projectile points recovered from surface surveys in the intervening area of the Passaic River Basin (Williams et al. 1978) indicates the continuous distribution of Rossville points, with greatest concentration in the

28 Schrabisch, Bulletin 9, 79.
29 Schrabisch, Bulletin 9, 37. Schrabisch actually identified sixteen of these structures in the Passaic, but five were located within the Paterson city limits.
30 Schrabisch, Bulletin 9, 37, n. 1.
Piedmont zone. Contemporaneous sites should occur in the Passaic Basin and, given the variety of natural habitats within the basin, a range of kinds of occupation sites may well be found.³³

In fact, the Schondorf Collection at the Paterson Museum includes diagnostic points and ceramics dating from the Early Woodland through the Late Woodland periods, though their lack of archeological context precludes making specific assumptions about potential sites.

Over his several decades of investigation in the early twentieth century, Max Schrabisch observed a large number of sites within the Passaic Valley. In a 1929 article, he noted “no less than 200 Indian lodge or camp sites along with six large settlements or villages, scattered thru Passaic River Valley from Horseneck Bridge to Passaic.”³⁴ Among those, Schrabisch located eighty sites “within or very near the boundaries of Paterson,” again adding in reference to the later riverside development of Paterson, “there is no way of telling as to how many have been blotted out….”³⁵

Lenape of the Mid-Atlantic, CE 1600 to 1650

New Jersey archeologist Herbert Kraft uses the name Lenapehoking, meaning “Land of the Lenape,” to describe the region occupied by Lenape bands at the time of European contact. It is not a historic term, but rather a descriptive term given to Kraft by Delaware Tribe member and Lenape linguist, Nora Thompson Dean in 1984.³⁶ In his exhaustive study, The Lenape-Delaware Indian Heritage: 10,000 BC to AD 2000, Kraft states that from the beginning of the Late Woodland Period (about CE 1000), “Lenapehoking was inhabited by people that we can confidently identify as Lenape Indians.”³⁷ By the time of European contact after CE 1600, Lenape bands spoke at least two regional dialects: Munsee, north of the Raritan River and Unami, to the south as far as Delaware.³⁸


³⁶ Kraft, The Lenape-Delaware Indian Heritage, 9, n. 2.

³⁷ Kraft, The Lenape-Delaware Indian Heritage, 205. Kraft also emphatically notes that he believes the Lenape “likely developed in situ from predecessors already there in Early and Middle Woodland times.”

³⁸ Kraft, The Lenape-Delaware Indian Heritage, 206. Some linguists also divide the Unami dialect into Northern Unami and Southern Unami. (Kraft, 206)
The Lenape groups which lived along the eastern seaboard (southeastern New York, New Jersey, Pennsylvania east of the Susquehanna, eastern Maryland, and Delaware) are today known largely by the descriptions from sixteenth and seventeenth century European explorers, traders, and missionaries and from Lenape stories which recall traditional lifeways. Review of the available literature describing the Lenape at the time of European contact reveals a system of community subsistence which generally matches the patterns described in the archeological record.

University of Pennsylvania anthropologist Anthony F. C. Wallace estimated approximately eight thousand Lenape lived in the region before European contact (around CE 1600), that number gleaned from a review of contact period literature. Robert Evelyn, an English traveler in 1634, described twenty-two villages along the eastern drainages of the then-South (Delaware) River and western North (Hudson) River (later New Jersey) with anywhere from fourteen to six hundred men. From this, Herbert Kraft estimates band or village sizes ranging from as little as forty to more than 1,800 inhabitants. A gathering of several family lineages formed the village bands, with each lineage numbering as many as fifty men, women, and children.

Lenape family lineages traced through the maternal line. The matrilineage, notes Kraft, “consisted of a female matron (a grandmother or eldest woman) and her male and female descendants and collateral relatives in the female line.” Though bands generally governed themselves by consensus, “the matriarch in consultation with other women of the lineage,” would choose a male sakima or “sachem” to serve as mediator or spokesman for the family when the need arose. Kraft notes that, “The sakima was not exalted; in most instances he was regarded merely as the first among equals.” Europeans mistakenly identified these village bands as “nations” and often called the chief sakima “king.” In reality, the sakima could make no decisions on his own and only carried out the directions of his council of “wise men.” It was these village-band “nations” with whom the Dutch traders, and later English proprietors, negotiated for trade and land.


40 Anthony F. C. Wallace, King of the Delawares: Teedyuscung 1700–1763 (Philadelphia: University of Pennsylvania Press, 1949), 7–8. The name “Delaware” for the Lenape was given by English explorers who named the Delaware Bay for Virginia governor Lord De La Warr and applied the title to the occupants of the Lenapewihittuck (Delaware River) drainage.

41 Kraft, The Lenape-Delaware Indian Heritage, 218–219. These numbers are based on each male having a wife and at least one child.

42 Wallace, King of the Delawares, 8–9.

43 Kraft, The Lenape-Delaware Indian Heritage, 249.

44 Kraft, The Lenape-Delaware Indian Heritage, 250.

45 Kraft, The Lenape-Delaware Indian Heritage, 250.
Descriptions of the Lenape living along the Mid-Atlantic coast written by European explorers and missionaries are most certainly colored by their belief in European and Christian superiority. However, the accounts provide us with a window on traditional Lenape lifeways. Though none directly reference bands living in what would later be the Paterson area of northern New Jersey, it is likely Lenape living along the Hudson River would have similar lifeways. In the reports of Italian explorer Giovanni da Verrazano in 1524, the peoples he encountered were still living within the Late Woodland chronological period, most yet unaltered by European trade goods and diseases.\textsuperscript{46} Verrazano’s explorations began on the Carolina coast. Sailing north, he briefly stopped on the Delmarva Peninsula and came finally to the New York Bay, “a very agreeable place between two small but prominent hills; between them a very wide river, deep at its mouth, flowed out into the sea.”\textsuperscript{47} Calling the land \textit{Angoleme} and the bay \textit{Santa Margarita}, Verrazano described the area as “densely populated.”

The people were almost the same as the others, dressed in birds’ feathers of various colors, and they came toward us joyfully, uttering loud cries of wonderment, and showing us the safest place to beach the boat. We went up this river [Hudson] for about half a league, where we saw that it formed a beautiful lake [Upper Bay], about three leagues in circumference. About XXX [thirty] of their small boats ran to and fro across the lake with innumerable people aboard who were crossing from one side to the other to see us.\textsuperscript{48}

Unable to continue their explorations there due to storms, the ship continued farther north.

Eighty-five years later, Henry Hudson’s 1609 exploration traced the North (Hudson) River (as relayed by Joannes De Laet in 1625 and later editions) and he described the people he found along the way. At Latitude 42˚ 18’ (near today’s Catskill, NY), Hudson visited a native family group:

I sailed to the shore in one of their canoes, with an old man, who was the chief of a tribe, consisting of forty men and seventeen women; these I saw there in a house well constructed of oak bark, and circular in shape, with the appearance of having a vaulted ceiling. It contained a great quantity of maize, and beans of the last year’s growth, and there lay near the house for the purpose of drying enough to load three ships, besides what was growing in the fields. On our coming near the house, two mats were spread out to sit upon, and immediately

\textsuperscript{46} Verrazano’s exploration was paid for by the King of France. He was looking for the passage to Cathay but instead found the unbroken east coast of North America. First landing at South Carolina, he turned north to avoid running into the Spanish, stopping on the Outer Banks of North Carolina, on the Delmarva Peninsula, New York, Rhode Island, and as far north as Newfoundland.


\textsuperscript{48} Verrazzano Letter, 5.
Peopling the Great Falls of the Passaic Landscape

Some food was served in well made red wooden bowls; two men were also despatched at once with bows and arrows in quest of game, who soon after brought in a pair of pigeons which they had just shot.⁴⁹

One of the ship’s officers, Robert Juet, reported trading with the natives for oysters, beans, “Indian Corne, Pompions, and Tabacco.”⁵⁰ Juet observed, “The river is full of fish,” while Hudson reported catching salmon and sturgeon in the river.⁵¹

In 1625, Joannes De Laet described “The Manners and Customs of the Natives of New-Netherland,” focusing on the “Sankikans” of the Upper South (Delaware) River (the boundary between today’s Pennsylvania and northwestern New Jersey):

Their clothing is composed of the skins of wild animals, especially beavers, foxes, and the like, sewed together in the manner of savages, with which they cover themselves entirely in winter, and slightly in summer. Their food principally consists of maize or Indian corn, from which they bake cakes resembling loaves of bread; fish, birds, and wild game. Their weapons are bows and arrows, the latter pointed with sharp flint stones or the bones of fishes. Their boats are one piece of wood, hollowed out by fire from the solid trunks of trees. Some of them lead a wandering life in the open air with no settled habitations; lying stretched upon the ground or on mats made of bulrushes, they take both their sleep and food, especially in summer, when they go nearer to the sea for the sake of fishing. Others have fixed places of abode, and dwellings built with beams in the form of an oven, covered above with the bark of trees, so large that they are sufficient for several families. Their household furniture is slight and scanty, consisting of mats and wooden dishes, hatchets made of hard flint stone by dint of savage labor, and tubes for smoking tobacco formed likewise of flint stone ingeniously perforated, so that it is surprising how, in so great a want of iron implements, they are able to carve the stone. They neither desire nor know riches.⁵²

The Sankikans lived just west of the bands living within the Passaic River drainage.

By the time of these early contacts, Lenape bands already appear to have adopted distinguishing group identities. Joannes De Laet, who drew upon the records of several early explorers, described several bands or tribes living along the North or Great (Hudson) River in his 1625 and 1630 editions of the Narratives of New Netherland. On the east side of the river (from south to north) lived the Manhattas (Manhattans), Pachami, Waoranecks, and Mohicans, and on the west side (south to north), the Aquamachuques, Sanhikans,

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⁵¹ Jameson, Narratives of New Netherland, 21, 49.

⁵² Jameson, Narratives of New Netherland, 57.
Machkentiwomi, Tappaans, Waranawankougs, and Mackwaes (Mohawks). New Jersey archeologist Herbert Kraft added to this list bands living north of the Raritan: the Canarsee, Esopus, Hackensack, Haverstraw, Kitchtawank, Massapequa, Matineconck, Navasink, Nochpeem, Raritan, Rechgawawank, Rockaway, Sinisink, Siwanoy, Tankitekes, Wappinger, and Wiechquaeskeck. According to Kraft, these groups represent some of the familial bands which occupied and utilized the resources within geographical areas generally focused around one of the Hudson drainages.

53 Jameson, Narratives of New Netherland, 45–47.

54 Kraft, The Lenape-Delaware Indian Heritage, 4. The Lenape bands living north of the Raritan River spoke the Munsee dialect and are often referred to as “Munsee” or “Minsi” (Kraft, The Lenape-Delaware Indian Heritage, 5); see also 1758 Treaty of Easton in which the northern New Jersey tribes (except the “Wapings”), by then living in the Wyoming Valley of the Susquehanna in Pennsylvania were apparently lumped together as the “Minsinks.”
Figure 7: 1616 Cornelius Hendricksen map of New Netherland, redrawn by John Brodhead in 1841. (New York Public Library)
Lenape of the Passaic Valley

Seventeenth century maps and journals indicate that at least three bands occupied territories in the Hackensack and Passaic River valleys. According to historian E. M. Ruttenber’s 1878 *History of the Indian Tribes of the Hudson River*, the Tappan lived between the Hudson River and the Hackensack River, from approximately Weehawken northward. In 1640, David Peiter de Vries purchased 500 acres from the Tappan, located “within an hour’s walk of Gamoenapa,” the “council fire” village of the Hackinsack (Ack-kin-kas-hacky).\(^5\) The Hackinsack territory “embraced the valley of the Hackinsack and Passaic Rivers,” including Jersey City (Gemoenapa or Communipaw), “Hoboken, a part of Staten Island, Wehawken, Newark, Passaic, etc.”\(^5\) Adjoining the Hackinsack along the Passaic River was the Acquackanonk territory, including the area now encompassed by the city of Paterson and “a considerable portion of the centre of New Jersey.”\(^5\) Robert S. Grumet interprets the Gweghkongh and Hweghkong, whose sachems were among the signers of a deed for Staten Island land in 1657, as another spelling for the Acquackanonk. In the deed, thirteen sachems and representatives from the Tappaan [sic], Hespatingh, Hackingsack [sic], Gweghkongh, and Hweghkong, described as the “hereditary owners of Staten Island,” conveyed “the whole of Staten Island, by us called Eghquaons,” in exchange for clothing, cloth, kettles, tools, as well as ten muskets, powder, and lead.\(^5\) This deed implies a close kinship among these lower Hudson River Lenape groups.

Ruttenber’s 1906 publication, *Footprints of the Redmen: Indian Geographical Names in the Valley of Hudson’s River*, provided his interpretation of the place-name Acquackanonk: “Aquackanonck, Auenonga, Aquainnuck, etc., is probably from Achquani’kan-ong,” meaning “Bushnet fishing place.” Ruttenber referenced David Zeisberger, a Morvarian missionary among the Munsee Lenape in the eighteenth century, who translated “Achquanican” as “a fish dam.” The addition of unk or ong, according to

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\(^5\) Ruttenber, *History of the Indian Tribes*, 90–91. De Vries established his home plantation called Vriessendael on this land. Today the land is part of the Edgewater community.


\(^5\) Ruttenber, *History of the Indian Tribes*, 91, 376. The “centre of New Jersey” perhaps meaning north-central New Jersey, likely not as far south as the Raritan River, which was the territory of as many as twenty Raritan bands. (Ibid, 90)

Ruttenber, indicates a geographic location, which he identified as “a point of land formed by a bend in Pasaeck River on the east side, now included in the City of Paterson.”

Jasper Danckaerts’ 1680 description of the river just below the Great Falls of the Passaic appears to support the “fish dam” interpretation of the Munsee word:

When the fish come up the river, this basin is so full of all kinds of them, that you can catch them with your hands, because they are stopped there, and collect together, refreshing themselves, and sporting in and under the falling fresh water, which brings with it, from above, bushes, green leaves, earth, and mire, in which they find food…. The Indians come up this river in canoes to fish, because it is one of the richest fisheries they have…

Danckaerts described a tract called “Ackquekenon,” encompassing “about twelve thousand morgen [24,000 acres],” located, at least in part, between the “Northwest Kil” (Passaic River) and “a small creek,” probably the Saddle River.

According to John Heckewelder, the Lenape called the winding river emanating from the Watchung Mountains Pasaiek, meaning “a valley.” Heckewelder additionally observed, “It does not seem that the Indians noted the falls in this river; but merely the ground through which the stream passeth.” However, a map of the Eastern and Western Jersey colonies, drawn by William Thornton and published in 1706, shows the “Paquam Falls” on the “Pisaick.” Historian Edward M. Ruttenber, writing in 1872, interpreted Totama as “the name of the falls—a word signifying to sink, to be forced down under weight by water.”


63 Heckewelder and Du Ponceau, “Names,” 375.

64 Ruttenber, History of the Indian Tribes, 376–377.
Northern Unami dialects, identifies *Paquapik* as the likely Lenape name for the falls, meaning “the noisy water.”

There are no period descriptions of the *Acquackanonk* band living along the Passaic River at the time of European contact. Additionally, much of the archeological evidence was damaged or destroyed by development, beginning with the 1791 raceway construction by the Society for Establishing Useful Manufactures. Max Schrabisch, who conducted archeological surveys of the area in the first decades of the twentieth century, described what he inferred from his survey:

Many a fishing place and camp site lined this once beautiful stream and the country through which it flows supported at one time a comparatively dense Indian population, for the river abounded in fish and the forest in game. That

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this region was the scene of busy life may be inferred from the fact that an important trail, the Wagaraw trail, traversed it on the Bergen County side of the river, connecting with the Goffle and Totowa trails at the northernmost point and bend of the river. The former ran north to Sicoraac and Franklin Lake, the latter in a southwesterly direction to Totowa and thence to Singac, closely following the meanderings of Passaic River. Again, there are many indications of primitive workshops along its banks and here the surface soil is even now littered with raw material and flakes. Flint, quartz and jasper were the materials most highly prized and they were almost exclusively employed by the later or so-called modern Indians.\(^66\)

Schrabisch indicated there were as many as sixteen fish weirs across the river between Passaic Park and Two Bridges. Only two are identifiable in the river today (2019) and archeologists remain uncertain as to whether the weirs were Lenape or European in origin.\(^67\)

Schrabisch recorded as many as eighty sites “within or very near the boundaries of Paterson.”\(^68\) Noting that the apparent large number of sites gave “the impression of a large population,” he observed instead that,

these sites are attributable to a very thin population, amounting probably to no more than a few hundred individuals, who, true to their nomadic proclivities and the exigencies of a precarious existence, were frequently shifting about within their allotted district, even as their forebears had done for countless centuries…. they subsisted largely on fishing and hunting. That they had made some progress in the arts of husbandry is evinced by the discovery of such tools as stone hoes, pestles and mortars. The vegetables, most often raised, were maize, beans and squashes.\(^69\)

Schrabisch identified the Fairfield area as the likely location where “the Acquackanoncks had their Winter quarters,” citing its situation sheltered by Hook (Towaco) Mountain and the “innumerable artifacts… bespeaking an intense occupation in scores of camps and village sites…”\(^70\)


European “Discovery” and the New Netherland Claim

As early as 1497, Italian explorer Giovanni Caboto, better known as John Cabot, sailed across the Atlantic under the British flag. He sought a northern passage to Asia, but instead he found Newfoundland. Cabot claimed the land he “discovered” for England. In 1498, Cabot’s second trans-Atlantic voyage, largely undocumented, may have turned southward along the eastern coastline of North America, possibly as far south as the Chesapeake Bay, extending the British claim. Giovanni da Verazanno followed Cabot in 1524, who made his voyage of “discovery” under the French flag. Another French explorer, Jacques Cartier, claimed Canada for France in 1535 after charting the St. Lawrence River.

Before these journeys, European powerhouses Spain and Portugal dominated New World explorations. However, the balance of power in Western Europe would soon undergo dramatic changes. In 1568, the seventeen Dutch provinces rebelled against the rule of Spain’s King Philip II. By 1581, the northern seven provinces, predominantly Protestant and led by William of Orange, declared their independence as the Republic of the Seven United Netherlands. During the bloody war, Spanish troops sacked the merchant center at Antwerp, initiating a mass immigration to the northern port city of Amsterdam and establishing it as the new merchant center of Europe. At the same time, Spain’s King Philip II inherited the crown of Portugal, effectively combining the two rival nations. Philip’s war against England, begun in 1587, was dealt a significant loss in 1588 when Spain’s Armada of ships, bound for an invasion of the British island, was defeated by the British Navy and their Dutch allies off the coast of France. Each of these profound events set the stage for a new period of exploration and settlement in North America, dominated by the English, French, and Dutch.

In 1584, England’s Queen Elizabeth began the process of establishing British sovereignty in North America, based upon Cabot’s claims of “discovery,” by issuing a charter to Sir Walter Raleigh. It authorized him to explore and occupy land “not actually possessed of any Christian Prince, nor inhabited by Christian People…” effectively allowing him to colonize land already occupied by Native Americans. Raleigh was given seven years to establish a colony on his proprietary land in exchange for one-fifth of all the gold and silver discovered there. His Roanoke Colony, located on the island between today’s

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71 European countries used the “right of discovery” to claim lands on the American continent. However, since the American continent was already occupied by a significant number of native people, the idea that Europeans “discovered” the continent or had a right to claim it is no longer accepted.


73 Arnold, The Age of Discovery, 16.


North Carolina mainland and the Outer Banks, failed after several attempts. The colony’s occupants (or their remains) were never found and it became known as the Lost Colony. It would be more than a decade before another attempt was made by the English to colonize North America, largely owing to its ongoing war with Spain.

England returned to the Mid-Atlantic territory they called Virginia after 1606 when the Virginia Company of London received a royal charter to establish a new colony. The charter’s boundary stretched between the 34th and 41st parallels—from today’s southern South Carolina border to the northern border of New Jersey—where they could “place theire plantacions and habitacions.” An overlapping charter was given the same year to the Plymouth Company, whose territory stretched from the 38th to the 45th parallel. This so-called “Seconde Colonie” landed a settlement at the mouth of the Kennebec River in Maine in 1607, but was abandoned in 1608. In May 1607, three Virginia Company ships carrying 104 settlers, among them Captain John Smith, landed at the mouth of the James River and established the Jamestown colony. Under the guidance of John Smith—who became the colony’s third leader in 1608—the struggling settlement began to stabilize, producing glass, potash, and after 1612, tobacco for trade.

Dutch explorations reached the New World two years after Jamestown was settled. Sailing under the Dutch flag, Henry Hudson navigated to the bodies of water later named for him, the North (Hudson) Bay and North (Hudson) River. Hudson claimed the North River drainage, including parts of what is now Connecticut, New York, and New Jersey, for the Dutch East India Company in 1611, despite the British royal charter for the same territory issued to the Plymouth Company in 1606.

The Dutch returned several years later when Cornelius Hendricksen sailed into the South (Delaware) Bay in 1616. By then the English settlement in Virginia had already logged nearly a decade of struggle and fitful progress. Hudson and Hendricksen’s explorations of the North and South Rivers formed the premise for the Dutch claim to their “right of discovery” of the territory they called New Netherland. As previously noted, this claim ignored the prior British claim via Cabot’s 1497 explorations, as well as the 1606 royal charters given to the Plymouth and Virginia Companies, and the permanent settlement at Jamestown. Britain reportedly protested the Dutch claim at The Hague, though apparently to no avail.


78 B. Fernow, Documents Relating to the History of the Dutch and Swedish Settlements on the Delaware River (Albany: The Argus Company, 1877), Vol. VII, iv. Hudson’s New Netherland claim also included the north South Bay and South River (later called the Delaware Bay and River) drainages, overlapping the British Jamestown claim.

79 Fernow, Documents, iv.
Dutch Contact with the North River Lenape

For the Dutch, the primary purpose of their New Netherland territory was to develop a trans-Atlantic fur trade. Immediately after Hudson’s visit in 1611, and before the Dutch East India Trading Company established a presence there, independent Dutch operators began trading with the Lenape living in the North (Hudson) River drainage, likely including Passaic River bands. European items considered “trifles” by the Dutch—cloth, metal tools, glass beads, and liquor—were exchanged for valuable pelttries, particularly beaver. Operating largely from their ships, this early phase of the Dutch presence in North America did not include any permanent occupation of the New Netherland territory. In 1614, the United New Netherland Company was granted a charter, which provided the company with a monopoly on trade in the region. Again, no settlements were planned, though the Fort Nassau trading fort was constructed on an island (near today’s Albany) in the upper North River.80

In 1621, the Dutch West India Company replaced the New Netherland Company and was granted the American trade monopoly. In 1624, the Dutch staked their claim in North America by sending thirty emigrant families, many of them French Protestants known as Walloons, to establish farming colonies on the North River, the Fresh (Connecticut) River, and the South (Delaware) River. Two colonies, each made up of eighteen people, were located on the North River, one on Noten (Governor’s) Island (near Manhattan). The Company placed another colony on the upper North River to help construct Fort Orange to replace Fort Nassau, previously destroyed by floods.81 Fort Orange was located on the west bank of the river, reportedly on land within Mahican territory, close to established Mahican and Mohawk (Iroquois) trading paths.82 By end of 1625, there were an estimated 200 settler and traders in the New Netherland territory.83

80 Kraft, *The Lenape-Delaware Indian Heritage*, 369–373.
82 Nicholas Van Wassenaer in John Franklin Jameson, ed. *Narratives of New Netherland 1609–1664* (New York: Charles Schribner’s Sons, 1909), 75. While Wassenaer, and the Vinckeboons map (Figure 9) describe the land as Mahican, De Laet described the land on which Fort Nassau was erected as “upon an island on the west side of the river, where a nation of savages dwells called the Mackwaes [Mohawk].” (cited in Kraft, 369).
83 Reported by Wassenaer in Jameson, *Narratives*, 82.
It is not clear whether the land for the Walloon colonies was actually purchased from the native occupants; however, by 1625, the Company appeared to pursue a policy of land purchase. It is important here to note the Lenape view of land and territory. John Heckewelder wrote of the Lenape belief in collective possession:

that he [Mannitto] made the earth and all that it contains for the common good of mankind; when he stocked the country that he gave them with plenty of game, it was not for the benefit of a few, but of all. Every thing was given in common to the sons of men. Whatever liveth on the land, whatsoever groweth out of the earth, and all that is in the rivers and waters flowing through the same, was given jointly to all, and every one is entitled to his share.84

Thus, the Lenape believed that the various deeds and land treaties made with Europeans were agreements only to share the land, land which nurtured and sustained them and without which they could not survive. The Dutch, and later the English, believed that they were purchasing the land in a permanent conveyance of ownership. These opposing cultural views of the land transactions between Lenape and European colonizers formed the

foundation of recurring disputes and Lenape resistance, and ultimately led to Lenape loss of the land they had occupied and utilized for centuries.

In 1625, the Dutch West India Company instructed New Netherland Director Willem Verhulst to find a proper site on which to erect a new trade and administration fort, and to “induce [the Indians] to give up ownership and possession to us” for that purpose, “either in return for trading-goods or by means of some amicable agreement.” The next year the “Island Manhattes” was “purchased” from the Canarsee (Manhattas) for sixty guilders. There the new Director-Governor Peter Minuit erected Fort Amsterdam. In 1626, the settlers at Fort Orange were moved to the Fort Amsterdam colony, both to avoid a violent conflict between the Mahicans and Mohawks and “to strengthen with people the colony near the Manhates, who are becoming more and more accustomed to the strangers.”

The West India Company sought, in 1629, to increase the New Netherland settlement population by passing the Charter of Freedoms and Exemptions. The charter allowed private landowners (patroons) to establish colonies independent of the Company. Patroons were required to first purchase the land from the native “owners.” Several patroonships were established on the North (Hudson) River, including Pavonia, which was located on land near the mouth of the Passaic River, encompassing the Hackinsack village of Gemoena.88

The developing trade with the Dutch impacted more than just the land occupied by the Mahican and Lenape bands. The European’s seemingly limitless demand for beaver pelts as well as the skins and furs of the larger game animals significantly altered long-standing seasonal hunting patterns. In 1649 Adriaen Van der Donck stated that as many as 80,000 “beavers are annually killed in this quarter of the country, besides elks, bears, otters, deer and other animals.” “Improved hunting equipment—muskets, axes, metal knives, iron tipped arrows, and spears” accelerated the “systematic overkill” of beaver and subsistence game, according to Kraft. Within a relatively short span of time,

85 De Laet, as cited in Kraft, The Lenape-Delaware Indian Heritage, 408.
86 Wassenaer in Jameson, Narratives, 85.
87 A. J. F. Van Laer, ed., New York State Library Van Rensselaer Bowier Manuscripts (Albany: University of the State of New York, 1908), Section XXVI, 151. Lenape bands did not “own” land in the sense that Europeans viewed land ownership.
88 Van Laer, Van Rensselaer Bowier Manuscripts, 158–159. Rensselaerswyck was located farther north, near Fort Orange (later Albany), on land “purchased” from Mahicans. Van Rensselaer’s “purchase,” dated Aug. 13, 1630, “embraced: 1, the land on the west side of the river from Fort Orange to the Mohawk; 2, a small tract on the east side of the river, on both sides of the present Mill Creek, from opposite Castle Island to a point opposite Fort Orange; 3, the land on the west side of the river from a point south of the Normans Kill to the north point of Castle Island, or possibly to Fort Orange.” (Van Laer, Van Rensselaer Bowier Manuscripts, 167)
90 Kraft, The Lenape-Delaware Indian Heritage, 372.
bands in the North River drainages came to depend upon European guns, metal, and cloth, replacing traditional stone tools, ceramic pots, and animal skin clothing.

It was in 1643, under Director Kieft, the fourth director of New Netherland at Fort Amsterdam, that conflicts between the colonists and the bands of the North River drainages escalated. Mutual mistrust, thefts, and isolated acts of revenge on both sides fueled the conflicts. The settlement established on Staten Island (Eghquaons) by David Pieterszen de Vries in 1638, presumably “purchased” from the “hereditary owners of Staten Island,” (the Tappan, Hespatingh, Hackinsack, Gweghkongh, and Hweghkong [Acquackanonk]) was destroyed by Raritans in 1640, touching off a round of incidents along the lower North (Hudson) River drainage.91

In 1642, after a large number of Tappans had taken refuge in villages located near newer Dutch settlements, Director Kieft proposed a war against the Indians. De Vries, who had recommended against violence as a member of the governing council of twelve, recalled Kieft’s reaction, saying “He had a great desire… to make these savages wipe their chops; that he had ordered Jan Claes Damen with Jacob Planck, who had requested it, to commence the job.” Though de Vries protested, the men were already on their way to Pavonia, where the Hackinsack town of Gemoenapa was located, “to commit the murder.” An estimated eighty Wiechquaeskeck and Hackinsack men, women, and children “were butchered during their sleep,” according to de Vries, while an additional forty were murdered at Corlaer’s Hook on the east side of Manhattan Island.92 “Governor Kieft’s War” raged on both sides from 1643 until 1645 when Kieft was recalled to Holland and replaced with Peter Stuyvesant.

The troubles continued for Director Stuyvesant in the increasingly tight quarters along the lower North River, with both Indian resistance and threatened English incursions from the New England colonies. The so-called “Peach War” erupted after a Dutch official killed “an Indian woman for taking some peaches or other fruits from his garden,” which prompted another massacre of Dutch settlers on Staten Island. Stuyvesant, however, was unable to enlist support from the failing West India Company for defense of the New Netherland settlements.93 In 1655, the North River “troubles” quieted down, giving Stuyvesant the opportunity to turn his attention to ending the Swedish intrusion into New Netherland territory on the South River.

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91 As referenced in the 1657 “Indian Deed for Staten Island,” Gehring, New Netherland Correspondence, 2003, 141; David Pieterszen de Vries in Jameson, Narratives, 227.
93 Gehring, New Netherland Correspondence, 103-104.
The Anglo-Dutch Wars and a Renewed British Claim

The return of Dutch rule along the South (Delaware) River in 1655 came a year after the conclusion of the first Anglo-Dutch War (1651–1654). Two other brief wars between the British and Dutch occurred in 1665-1667 and 1672-1674. Though the Dutch and the English had been allies against the Spanish in the late sixteenth century, their growing dominance in mercantile trade and colonizing new lands repeatedly set the two countries at odds through much of the seventeenth century. While the two country’s navies engaged in battle, England actively sought to seize Dutch colonial ports and settlements in Africa, the East Indies, and North America in an effort to extend its trading powers.

Thus in 1664, just before the start of the second Anglo-Dutch War, King Charles II of England determined to capture the New Netherland territory. When Richard Nicholls sailed into the New Amsterdam harbor with four English warships in August 1664, he met no resistance. Exhausted after nearly a decade of battling to maintain the colony without Company assistance, Stuyvesant negotiated a “Capitulation” agreement in which the English took control of the territory.94

In March 1664, six months before Nicholls’ conquest of New Netherland, King Charles II granted the territory to his brother James, the Duke of York. The Duke’s proprietary grant included the land from the Connecticut River southward along the east side of the Delaware River and Bay, much of that area soon to be known as New Jersey.95 Just two months later, in June 1664, the Duke of York granted joint proprietary rights for the Province of New Jersey to Sir George Carteret and John, Lord Berkeley. After Nicholls’ conquest of New Netherland in August, New Amsterdam was renamed New York in the Duke’s honor, and Nicholls was installed as governor of the Duke of York’s territory.96 One year later, in August 1665, Carteret and Berkeley assigned Philip Carteret as the governor of the New Jersey proprietary, with Elizabeth-Town as the provincial capital.97

In March 1674, Lord Berkeley sold his half interest to John Fenwick as trustee for Edward Bylynge, after which the joint proprietary of New Jersey was divided into East and West New Jersey (commonly East and West Jersey). Sir George Carteret’s East Jersey proprietary, patented by the Duke of York in July 1674, was described as “being the territory lying north of a line connecting Barnegat Bay on the Atlantic Ocean with Pennsauken

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95 The grant did not include the land on the west side of the Delaware River and Bay, later called Delaware, though James later claimed that land anyway, and in 1692 granted the “three lower counties” to William Penn.


97 Governor Nicholls issued the patent for Elizabeth-Town in December 1664 and for Middletown and Shrewsbury in 1665, although all three settlements were within the Carteret and Berkeley proprietary grant. (Klett, “East and West Jersey,” 3).
Creek on the Delaware River.”\(^{98}\) In 1676, the East-West Jersey partition was adjusted in the “Quintipartite Deed,” the deed of partition between George Carteret and Edward Billinge (Byllynge), Gawen Lawrie, Nicholas Lucas, and William Penn (trustees for Byllynge). A description of Carteret’s “East New Jersey” began at Little Egg Harbour (in Barnegat Bay), “extending eastward and northward along the sea coast and the said river called Hudson’s river,” then to forty-one degrees latitude (the New York boundary), then in a straight line “to the northermost branch, or part of the before mentioned river called Delaware river,” and there intersecting with the straight division line down to Little Egg Harbour.\(^{99}\)

See Figure 10 on page 43, and Figure 8 on page 33.

\(^{98}\) Klett, “East and West Jersey,” 3. Pennsauken Creek is located nearly opposite Philadelphia.

\(^{99}\) GG (WJ), Folio 169, “Early Land Records, 1650-1801,” New Jersey State Archives; “Quintipartite Deed of Revision, Between E. and W Jersey: July 1st, 1676,” The Avalon Project, Yale Law School, Lillian Goldman Law Library, http://avalon.law.yale.edu/17th_century/nj06.asp, accessed 2/25/2019. The “northermost branch” of the Delaware River was not named, but may have been intended to be the Neversink River, which empties into the Delaware at today’s New York/New Jersey boundary.
Figure 10: The State of New Jersey, about 1780, showing division lines. (Library of Congress)
Peopling the Great Falls of the Passaic Landscape

Extension of Settlements into the Passaic Valley

It was not until English administration arrived in the form of the New Jersey proprietary that European settlements moved into the interior drainages of the Hudson River. The valley of the Passaic River, called the Northwest Kil by Danckaerts and sometimes appearing on early maps as the “Rivier Achter Kol,” was among those that escaped intrusion by Dutch colonists.\(^{100}\) In 1664, John Bailey, Daniel Denton, and Luke Watson “purchased” an unspecified acreage for the Elizabeth-Town settlement from the sachems Mattano, Cowescomen, and Manamowavoe. The substantial tract’s boundaries extended along the Raritan River on the south and today’s Arthur Kill (Staten Island Sound) on the east, running north to “Cull Bay” (Achter Kol, today’s Newark Bay), “till we come at the first river which sets westwards up after Cull Bay” (likely Passaic River), and “west into the country twice the length as it is broad from the north to the south of the aforemention’d bounds.”\(^{101}\)

Another early English settlement was the “town” of “Pisayak” (later Newark), already occupied by “English Inhabitants” in 1667 when they entered into a deed agreement with the “Indians belonging to Hackensack.”\(^{102}\) The tract was located within the Elizabeth-Town settlement “purchase;” however, the Hackensack reportedly disputed that claim and a new agreement was reached. The “townsmen” named in the deed as “agents of the English Inhabitants of Pisayak” included John Browne, Obadiah Bruen, Robert Denison, Samuel Kitchell, and Michael Tomkins. The Hackensack representatives named in the document included Cacakque, Capatamine, Hairish, Mamustome, Napeam, Perawae, Peter, Sessom, Wamesane, Wapamuck (Sackamaker), and Wecaprokikan. The English were not reticent about supplying guns in trade, as the payment included ten guns and twenty pistols, as well as powder and lead. Liquor, beer, wampum, swords, knives, axes, hoes, kettles, coats, blankets, and breeches rounded out the payment. The transaction included a provision for “free liberty and range for Cattell, Horses, Hoggs, although they

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range beyond any of the bounds in this deed expressed, to feed and pasture without Molestation of or Damage to the Owners of the Cattell, etc."

In July 1668, *New Barbadoes*, a tract of over 15,000 acres located between the Hackensack and Passaic Rivers was conveyed in two deeds, one by proprietary governor Philip Carteret, and the other from the Hackensack. The first deed was dated July 4, 1668, from the proprietary to William Sandford “of Barbadoes, and his Associates.” This conveyance required the new owners to settle at least eight families on the tract within three years. Sixteen days later, on July 20, 1668, Sandford “purchased” the same land from several Hackensack representatives, including Anoren, Gosgue, Hanyaham, Kenarenawack, Tamark, and Tantagua. Sandford paid “170 fathom of Black Wampum, 200 fathom of White Wampum, 17 Match Coates, 16 Gunns, 60 double hands of powder, 10 paire of britches, 60 knives, 67 barrs of lead, one Anker of brandy, three half fats of bear [beer], eleven blankets, 30 Axes, 20 howes, and two coates of dorens” for the extensive tract. That the proprietary deed came first, before the Hackensack deed, is indicative of the English proprietors’ strong belief in their right to the land via the Duke of York’s grant. Despite what Carteret, Berkeley, and Sandford might have believed, it is unlikely that the Hackensack sachems intended to give up their right to hunt and occupy the land.

It was more than ten years later, in 1679, that two deeds of conveyance were recorded for land within the hunting territory of the Acquackanonk (variously spelled Haquequenunck, Awenongue, and Aqueguonke), deep within the Passaic River valley. In the first deed, “Captahem Indian Sachem and Chief, Owner of a certain tract of Land Lying and being upon Pisawyck River knowne by the name of Haquequenunck,” conveyed an unspecified amount of acreage to four Dutch men, Hans Dederick, Gerret Garretson, Walling Jacobs, and Hendrick George. The “sale” by Captahem was made with the “consent of Memiseraen, Mindawas, Ghonnajea, Indians and Sachems of the said Contry,” for “a certain Parcel of goods, Blankets, kettles, powder and other Goods to my Content and Sattisfaction.” Several days later, “Christopher Hooghland, Jacques Corteliou, Captain Elbert Elbertse, Captain Richard Stilwell and their Associates,” purchased part of a “tract of land called Aquegnonke” bounded on the west by Passaic and on the east by the Saddle River (Saddle River tract).

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103 Liber 1, Part B (EJ), Folio 270, *New Jersey State Archives*; Ogden, *Founders of New Jersey* 52. The cattle provision is significant as “Kieft’s War” (1643–1645) arose in part out of Indian complaints that settlers’ free-ranged cattle would often damage the Indian’s field corn.

104 Liber 1, Part A (EJ), Folio 33, *New Jersey State Archives*.

105 Liber 1, Part A (EJ), Folio 42, *New Jersey State Archives*.

106 Nelson and Shriner, *History of Paterson and its Environs*, 90; Liber 1, Part B (EJ), Folio 211, *New Jersey State Archives*. This tract includes the land on which Paterson later developed.

In 1684, the fourteen Dutch owners of the larger Acquackanonk (*Haquequenunck*) tract sought to make their settlement official by petitioning the East Jersey proprietary for a patent:

The petition of Hans Dedricke Elias Mekellson and Adrian Post in behalfe of themselves and other Inhabitants of Aquaquanuncke setting forth they had purchased by order of the late Governor Carteret A Tract of Land and Containing 5520 Acres which is to be Devided amongst fourteen ffamelys of them there settled—pray they may have a gen’l Patent for the same.\(^{108}\)

The Patent described the bounds of the tract:

upon Pisaick River in the County of Essex and called and knowne by the name of Acquikenunck Beginning att the Northermost bounds of the towne of Newark and soe Runing from the Lowermost part to the uppermost part thereof as far as the steepe Rocks or mountaines and from the said Lowermost part along Pisaick River to the great ffalles thereof and soe along the steep Rocks and mountaines to the uppermost part of Newarke bounds afores’d.\(^{109}\)

The fourteen owners of the patent, Hans Diderick, Garrett Garratson, Walling Jacobs, Elias Machielson, Hartman Machielson, Johannes Machielson, Cornelius Machielson, Adrian Post, Urian Tomsan, Cornelius Rowlofson, Symon Jacobs, John Hendrick Speare, Cornelius Lubbers, and Abraham Bookey, each received one lot of one hundred acres with frontage on the Passaic River. Outlots of fifty acres were later platted and added to each owner’s acreage.\(^{110}\)

By the time of Danckaerts’ 1680 visit to Acquackanonk, as the tract was known, he described only one Indian family still living on the 24,000-acre tract. Danckaerts was looking for land on which to settle a religious colony of Labadists. He recounted that they visited the Acquackanonk tract belonging to “Jaques of Najack” (Jacques Cortelyou) because Cortelyou and others in the nearby Bergen settlement identified a tract of as much as 60,000 acres, located “above the falls… which the Indians were disposed to sell, and we could buy for a small price.”\(^{111}\)

These land transactions are indicative of the quickening pace of settlement, particularly in northern New Jersey. As the European settlers pushed the frontier inland from the initial coastal settlements, Lenape bands were forced to move to less populated areas, first

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\(^{111}\) James and Jameson, *Journal of Jasper Danckaerts*, 85. The Bergen settlement located on the peninsula at the mouths of the Passaic and Hackensack Rivers (Newark Bay), encompassing the former Dutch Pavonia settlement.
on the fringes of their traditional territories, then into neighboring territories, and later to Pennsylvania, Ohio, Wisconsin, and finally Indian Territory (Oklahoma).

The evolution of the governing divisions in the East Jersey proprietary is illustrative of these changes over time. By November 1675, there were seven settlements within the East Jersey boundary—Bergen, Elizabeth-Town, Newark, Woodbridge, Piscataway, Middletown, and Shrewsbury. In 1683, four East Jersey counties were officially established—Bergen, Essex, Middlesex, and Monmouth. The Passaic River valley was included entirely within Essex County until 1688 when, under an agreement to settle a newly drawn East-West division known as the “Keith Line,” the Passaic and Pequennock rivers became the western boundary of East Jersey and Essex County. Despite its reduced size, by 1693 the population of Essex County had grown enough to warrant further governing division into three townships: New Barbadoes & Acquackanonk, Newark, and Elizabeth-Town.112

Passaic River Lenape bands continued to enter into land agreements through the 1680s, including a 1684 conveyance from Canandus, Mindowashen, Neweuapee, and Seweebromb to the East Jersey Proprietors for two tracts located between the Passaic River and Bound Brook. By the 1690s a number of bands, by then greatly reduced in numbers

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113 Liber A (EJ), Folio 262, New Jersey State Archives.
by European-borne diseases such as smallpox, had migrated to the territory of the Pompton or Oping (northwest New Jersey), where disputes over the shifting boundary between East and West Jersey delayed land sales to European settlers. New Jersey historian Robert Grumet described the Pompton area as “a diverse Indian community whose population included many native people from neighboring New York, others from New Jersey, and a number of Wampano-speaking people from southwestern Connecticut.” It was indicative of the relentless pressure of European settlement pushing native bands further westward.

### Land around the Great Falls of the Passaic

European occupation around the Great Falls of the Passaic intensified beginning in 1695 when a new settlement was laid out on a part of the Acquackanonk tract on the southwest side of the Passaic River. Known as the Gotham Division, it was composed of fourteen parcels, with the plat indicating eleven Dutch owners of individual parcels. A second division—the Boght Patent—on the southwest side of the river occurred in 1714, though in reality it was a division or partition of the patent land. Laid within the bend of the river where Paterson was later platted, the division lines from the Boght Patent served as survey lines for Paterson’s street grid, here described by Lisanne Renner:

The patentees divided the tract into two nearly equalsize portions separated vertically by the *dwarslijn*, or division line, which became present East 18th Street and formed the spine of the linear settlement. As late as 1892, a fence stood designating this historic division. The land east of the *dwarslijn* extending to the river was subdivided into 15 horizontal strips; the division lines all run parallel to Park Avenue. Likewise, land west of the *dwarslijn* was subdivided into 13 strips, with the still-existing Broadway separating two of them, and the other lines running parallel to Broadway. The northernmost of these farms west of the *dwarslijn* extended to the river, and those south of Broadway ran to Garret Mountain. Each lot contained about 150 acres, and the lines separating them eventually evolved into narrow roads, called farm roads or drift ways. Many of these have corollaries in modern Paterson. Roads that break from this pattern, such as Vreeland Avenue and Wesel Road, were laid out by formal agreement among the settlers for pragmatic purposes.

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114 Grumet, “Beyond Manhattan,” 50.


The Totowa Patent, granted in 1710 to George Wilcox (perhaps Willocks) and located on the north of the Passaic River, was divided into 100-acre lots.\textsuperscript{117} This section also later became part of the Paterson community.

\textsuperscript{117} Elizabeth Clarke, et al., \textit{Vista Park Master Plan} (City of Paterson, NJ, August 2018), 19–20.
In December 1709, the East Jersey proprietors surveyed a tract of 42,500 acres on the north side of Passaic River for a group of eight investors. The large tract was described as “being bounded… North West by a Chain of Hills or Mountains, North West by Lands Newly purchased by Elias Boudinot and others, South East by the above named Sadle River and South West by Major Brockolst and Arent Schuyler’s Land and by other Tracts which boundeth upon Pissaick River.”118 The survey was followed five months later, in May 1710, by a conveyance to just three of the eight men—John Auboyneau, Elias Boudinot, and Peter Fauconnier—from an apparently consolidated group of Lenape bands under the leadership of Memerescum, who described himself as “Sole Sachem.” Memerescum claimed to represent “all the Nations of Indians on Remopeck River [Ramapo?] and on the West and East Braches thereof, on Sadle River, Pasqueek River [Passaic?], Naraslunk River,

118 Liber I (EJ), Folio 321, New Jersey State Archives.
Hackinsack River, and Tapaan.”¹¹⁹ That same year, all the land north of the Passaic River was included within an expanded Bergen County boundary.¹²⁰

Thomas Pownall, Lieutenant Governor of New Jersey from 1755 to 1757, sketched the Great Falls of the Passaic River, probably during his travels between 1753 and 1755. The sketch was later published as an etching by British artist Paul Sandby. In preparing his first revision of A Topographical Description, published in 1776 to accompany Lewis Evans’ “Map of the Middle British Colonies,” Pownall drew upon his travel journals to describe the Passaic River landscape. The Dutch settlements or “neighborhoods,” “what we English call towns,” appeared as pockets of cleared land within a landscape of “natural Sylvan beauty,” reminiscent of the deer parks of the English aristocracy. “Roads run along the banks of the river,” wrote Pownall, who followed the roads to the “Falls of Passaik” [sic]. He described the journey from the home of Col. John Schyler [sic] near Newark, “To Aquacinock 6 [miles]: Thence to Weisel 6 [miles]: Thence to the long bridge over the Passaick [sic] River 2 [miles]: Thence to the Falls one [mile].” Pownall then described the Falls:

The Falls of Passaik [Passaic] are a very curious natural Phenomenon. The River running round the Back of a Rocky Cliff, which by some Accident has been shattered & riven from Top to Bottom about 90 feet, turns short round & Tumbles head long with an Inconceivable force & Velocity down this horrid chasm foaming with its hoarse stunning roar at its base more like something combustible than Water. There is a lesser Chasm on the right side of this Through which a column of Water shoots directly across the great fall & has a peculiar effect & appearance. The Rocks on the left hand of this great Chasm is a Steep Cliff the Rocks of which are riven in two Places from top to bottom. I measured their height with a pack thread & stone, &, as near as I could regulate my measure, they were 90 feet high. I jump’d across one of these Chasms to go to the Cliff: & when I had done it, my head so turned; my heart misgave me; and It required an effort of mind to go back again. I think of it now with dread.¹²¹

Though the Great Falls of the Passaic remained a powerful natural resource, Thomas Pownall’s description of the Passaic valley reveals the extent to which European settlements had begun to change the landscape. It was a tide the native Lenape bands would not be able to stop or even slow.

¹¹⁹ I (EJ), Folio 317, New Jersey State Archives. The list of Lenape signers to the deed included Ayamaugh, Iaphome, Maskainapulig, Memerescum (Sole Sachem), Rawantaques, Sipheme, and Waparent.


The Lenape numbered in the thousands around the time of European contact in the first half of the seventeenth century. Those numbers were significantly reduced by the end of the eighteenth century; European diseases alone, for which the Lenape had no natural immunity, are said to have reduced the population by ten to thirty percent by 1800.\textsuperscript{122} Battles, massacres, and individual acts of resistance against the invading European colonists also reduced the native population.

Through the first half of the eighteenth century, most remaining northern (New York/New Jersey) Munsee Lenape bands removed to the Wyoming and Shamokin areas on the Susquehanna River, while the southern Unami Lenape (by then known as Delawares) migrated to the Ohio River. Teedyuscung, called the “King of the Delawares” by European Americans who did not understand Lenape culture, became the spokesman for the Forks and Wyoming bands.\textsuperscript{123} At the outbreak of war between the French and the English in 1754, Teedyuscung’s bands living on the Susquehanna were experiencing severe drought and

\textsuperscript{122} Kraft, \textit{The Lenape-Delaware Indian Heritage}, 389, citing Jasper Danckaerts.

\textsuperscript{123} Kraft, \textit{The Lenape-Delaware Indian Heritage}, 456–457.
potential famine, while also facing French incursions. The British distain for the American Indian occupants of the land now claimed by the British crown would turn potential Indian allies in the war into dangerous enemies aligned with the French.  

In 1757, Teedyuscung entered into a peace agreement with Pennsylvania governor William Denny. In October of the next year, the lieutenant governor of Pennsylvania and the governor of New Jersey met at Easton, Pennsylvania, with various consolidated Lenape bands, including the former northern New Jersey bands described as the “Minisinks and Wapings.” The Minisinks complained that “they were wronged out of a great deal of Land, and the English settling so fast, they were pushed back, and could not tell what Lands belonged to them…. We say that we have here and there Tracts of Land that have never been sold.” One of the Minisink chiefs, Egohohowen, articulated their long-held belief that they had never “sold” their hunting rights. He addressed New Jersey Governor Bernard, “we desire… that your People may not look on the wild Beasts of the Forest, or Fish of the Waters, as their sole Property; but that we may be admitted to an equal Use of them.” The governor was dubious, given the late hostilities associated with the war, but promised to “issue a Proclamation… that, for the Future, they should be treated as Brethren.” The resulting agreement, known as the Treaty of Easton, included comprehensive “purchases” of both Minisink and Munsee Lenape territory, including the Passaic valley:

all the remaining Lands in New-Jersey, beginning at Cushytunk, and down the Division Lines between New-Jersey and New-York, to the Mouth of Tappan Creek at Hudson’s River, and down the same to Sandy-Hook, thence to the Mouth of Rariton, thence up that River to the Falls of Alamatung, thence on a strait Line to Paoqualin Mountains, where it joins on Delaware River, thence up the River Delaware to Cushytunk.

This deed was executed by “the Chiefs of the Munsies, Wapings, Opings, or Pomptons, Sixteen in Number” and witnessed by the Chiefs of the Six Nations. Most of the New Jersey


125 “Minutes of the Treaty held at Easton,” 19–20, Evans Early American Imprint Collection, (original printing Woodbridge, New-Jersey: James Parker, Printer to the Government of New-Jersey, 1758) https://quod.lib.umich.edu/cgi/t/text/text-idx?c=evans;cc=evans;view=text;idno=N06429.0001.001;rgn=div2;node=N06429.0001.001%3A2.13, accessed 1/11/2019; see also Liber I-2, Folio 89-94, New Jersey State Archives. The minutes noted the representatives of the New Jersey tribes (by then living at Wyoming Valley in Pennsylvania): “CHIHOHOCKIES: alias Delawares, and UNAMIES: Teedyuscung, with divers Men, Women and Children. MUNSIES or MINISINKS: Egohowen, with sundry Men, Women and Children. MAWHICKONS: Abraham, or Mammatuckan, with several Men, Women, and Children. WAWPINGS or POMPTONS: Nimham, Aquaywochtu, with sundry Men, Women, and Children.” (“Minutes of the Treaty,” 4)

126 “Minutes of the Treaty,” 27.

127 “Minutes of the Treaty,” 27.

128 “Minutes of the Treaty,” 27.
Lenape bands had long since left the province, with only an estimated 300 still in residence and 200 of those living on the Brotherton Reservation.\footnote{Nelson and Shriner, \textit{History of Paterson}, Vol. 1, 76.}

In 1762, the “French and Indian” or Seven Years War was officially over, although the peace was briefly interrupted in 1763 by Pontiac’s Rebellion. By 1774, Lenape bands had been permanently driven from their ancestral lands along the \textit{Mahican}tuck (Hudson River) and \textit{Lenapewihittuck} (Delaware River) and from their interim territories along the Susquehanna River. Most were settled in territories touching only the western-most borderlands of Pennsylvania and into Ohio. In 1778, a treaty “of perpetual peace and friendship” between the Continental Congress and “the Delaware Nation,” was the first treaty enacted by the newly minted United States government. Though the treaty suggested that in the future (should the United States defeat Great Britain) they might “invite any other tribes who have been friends to the interest of the United States, to join the present confederation, and to form a state whereof the Delaware nation shall be the head, and have a representation in Congress,” that eventuality did not occur.\footnote{Charles J. Kappler, \textit{Indian Affairs: Laws and Treaties}, Vol. II (Washington: Government Printing Office, 1904), 3–5.} By the 1840s, much of the remaining Delaware Nation found a final home in Indian Territory (later Oklahoma).

For the most part, it was European settlers, who poured into the Pennsylvania frontier after 1763, who drove the Lenape’s westward migrations.\footnote{Weslager, \textit{The Delaware Indians}, 233, 242–243.} New Jersey settlements grew at a more measured pace through the 1760s and 1770s, largely focused in the areas immediately adjoining New York and Philadelphia. Still, the rural hamlets established along the rushing rivers and creeks of northern New Jersey were active with the hum of gristmills, the ring of the blacksmith’s anvil, and the whir of home-based manufactures.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline
\textbf{Colony} & \textbf{1640} & \textbf{1650} & \textbf{1660} & \textbf{1670} & \textbf{1680} & \textbf{1690} & \textbf{1700} & \textbf{1710} \\
\hline
New Jersey & 1000 & 3400 & 8000 & 14,010 & 19,872 \\
Pennsylvania & 680 & 11,450 & 17,950 & 24,450 \\
New York & 1,930 & 4,116 & 4,936 & 5,754 & 9,830 & 13,909 & 19,107 & 21,625 \\
\hline
\textbf{Colony} & \textbf{1720} & \textbf{1730} & \textbf{1740} & \textbf{1750} & \textbf{1760} & \textbf{1770} & \textbf{1780} \\
\hline
New Jersey & 29,818 & 37,510 & 51,373 & 71,393 & 93,813 & 117,431 & 139,627 \\
Pennsylvania & 30,962 & 51,707 & 85,637 & 119,666 & 183,703 & 240,057 & 327,305 \\
\hline
\end{tabular}
\caption{Estimated Population of Colonies (European and African American).}
\end{table}

Figure 15: “Estimated Population of Colonies,” New Jersey, Pennsylvania, New York. (from Dr. Stephen Davies, Vancouver Island University, \url{https://web.viu.ca/davies/h320/population.colonies.htm}.)
CHAPTER 2

BUILDING A NEW NATION

The expediency of encouraging manufactures in the United States, which was not long since deemed very questionable, appears at this time to be pretty generally admitted.

Alexander Hamilton
Report on Manufactures, 1791

Introduction

By the late 1760s, American agriculture had developed into a relatively diversified production of money crops, including tobacco, wheat, and rice, much of which was shipped to England, or to the British West Indies. Manufacturing remained largely the production of things on a small scale—by hand, by individual workers—and was carried out in gristmills, sawmills, fulling mills (pounding wool into felt), blacksmiths, and iron forges. The finer goods were shipped from England, where protectionist legislation ensured the colonies would remain a ready market for British manufacturers. Growing American frustration with mercantile and manufacturing limitations overflowed in the 1760s with Britain's imposition of import duties in an attempt to raise revenue back home. Ultimately, the frustration boiled over into a war for independence, known as the American Revolution.

Once free of Britain’s oppressive trade rules, the new United States struggled to develop a framework for governing the independent, but interdependent, thirteen states which formed the Union. The work of Alexander Hamilton was central to realizing the economic potential of the new nation. Much of his economic theory, formulated as he moved through his college years, his service on General George Washington’s staff during...
the war, and as President Washington’s Secretary of the Treasury after, eventually found a home in the Society for Establishing Useful Manufactures.

Water Power and Manufacturing in Colonial East Jersey

In discussing American colonial manufacturing before the American Revolution, it is important to note the purpose of colonial settlement, particularly by the British. While the Dutch and French focused largely on the peltries trade with American Indians, the English sought to develop sources for raw materials (timber, iron, potash) and a ready market for British-made products, particularly textiles. Navigation acts passed by Parliament in 1651, 1660, and 1663—which forced colonial commerce to pass through British ports—as well as duties on both imports and exports, served to regulate American manufacturing in the colonial era. Thus, much of pre-Revolution American industry was dominated by cottage crafts which addressed basic necessities (course woolen cloth, carpentry, blacksmithing, tanning) and the milling of subsistence supplies (cornmeal, flour, wood). A nearby source of waterpower was necessary for many of these industries and was abundant in the piedmont regions of the Mid-Atlantic colonies.

Rutgers geography professor (now Emeritus) Peter O. Wacker summarized the manufacturing industries of colonial New Jersey as they appeared just before the American Revolution in his chapter, “New Jersey’s Cultural Resources: AD 1660—1810.” Citing 1770s New Jersey tax lists, Wacker noted that, “by 1765 every good size stream… was being utilized for some industrial activity.” He identified sawmilling among the earliest industries, as vast woodlands were cleared:

Since most Europeans who settled in New Jersey used frame construction, sawmills were ubiquitous. The books of some of the sawmill operations in existence relatively late in the period (1760s) suggest that in well-settled areas, even very small watercourses were harnessed to provide energy.

Grist or flour mills also appeared early throughout the region:

Mills were of at least three types with the tub or Norse mill operating like a turbine on extremely small rivulets. Undershot wheels could be placed directly in fairly large streams, such as the Raritan, while overshot wheels needed a head of water provided by a dam or by a flume leading water from a point above the mill structure.

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The colonial iron industry developed primarily in the Highland counties of north-central New Jersey, where iron ore, timber for charcoal, and swift-moving streams were in abundance:

The iron industry depended on waterpower to activate bellows for introducing air into forges and furnaces, and to provide the motion required to move the trip hammer which pounded the impurities out of the cast iron and worked pig iron into the bar iron of commerce. In addition to waterpower, the industry required reasonable proximity to the ore (generally magnetite in the Highlands) and somewhat closer association with the fuel source (i.e. charcoal) from the woodlands.5

Many of these industries appeared quite early in the colonial settlement of northern New Jersey, beginning after the first permanent Dutch settlement at Bergen in 1660.

Provincial East New Jersey land records indicate that mills were likely already operating in the northeastern counties by the 1660s. The 1669 purchase of a twenty-acre house lot near Papiack Creek (Middlesex County) by John Smith, a millwright of Woodbridge, is among these early references to milling.6 Mill Brook, a tributary of the Raritan River, also appears in 1660s records, implying the presence of mills among the early East Jersey colonial settlements. As early as 1678, New York merchant Nicholas Bayard established a mill at Bergen.7 Jasper Danckaerts envisioned installing mills along the Passaic River during his 1679 visit to Acquackanonk, noting, “a small creek… affording water sufficient, both summer and winter, to drive several mills.”8 Danckaerts concluded that, though the tract did afford good waterpower, it did not have enough timber to justify its purchase for the Labadist community.

Sometime after the 1714 Boght division of the Acquackanonk tract, mills were constructed on Lot 8 on the west side of the dwarslijn and on the north side of York Road (today’s Broadway). The map reference describes the “grist & sawmill of Hendrick Gerretson 1767” (at the number 3 on the map), though Lot 8 was originally granted to Hendric Spier. Eventually the lot and mills came into possession of Simeon Van Winkle, Cornelius Van Winkle, and Abraham Godwin.9

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7 Liber 2, Part A, Folio 3, New Jersey State Archives.
Navigable waterways provided the most affordable transportation of heavy, bulky products. Development of road systems to connect interior Piedmont sections with the navigable waterways was an early priority. The 1679 plat of the Gotham Division of Acquackanonk (today's Passaic) indicated a road (Weasel Road, today's Lexington Avenue) serving as the center dividing line (see Figure 12). Acquackanonk (Passaic) was located at the head of the navigable waters of the Passaic River and Weasel Road likely serviced the settlements to the north and west. Lathrop's undated “Map of Totowa and The Boght,” said to be “compiled from old records and map,” shows this as part of “York Road,” which turned west following division lines, passed Gerretson's mills, across the Passaic and turned south as “Totowa Road.” Presumably this is the same road which appears on Thornton’s 1706 “New Map of East and West New Jersey” as “The Road from York to Delaware Falls” (today’s Trenton; see Figure 8), below which the Delaware River was navigable.
Seeds of Revolution

After the conclusion of the Seven Years War, known as the French and Indian War in the American colonies, England looked for ways to increase revenues to pay for the costly conflict, much of which took place in the colonies. Parliament put forth a series of income-producing measures in the form of taxes and duties on items sent to the American colonies. These provisions met with increasingly hostile resistance in the colonies, culminating with the American Revolution (or War for Independence).

One of the early revenue measures was the Stamp Act of 1765, by which Parliament imposed a tax on all paper used for printed documents. The Stamp Act Congress, convened by the colonies in October 1765, drafted resolutions in opposition to the Stamp Act, which appealed not to Parliament, but to the King for American colonists’ rights and with the argument that taxes should not be imposed without representation. Parliament rescinded the Stamp Act in March of 1766, but at the same time passed the Declaratory Act, which affirmed the right of Parliament to enact any kind of legislation for the colonies that they chose.11

In 1767, Charles Townshend, the Chancellor of the Exchequer, proposed a set of three actions designed to produce revenue and curtail the increasingly intransigent colonies. Known collectively as the Townshend acts, they included the Revenue Act, which placed duties on imports of glass, lead, paper, paint, and tea; the Suspending Act, a suspension of the New York Assembly until it complied with the Quartering Act; and the creation of the American Board of Customs Commissioners to oversee American trade, headquartered in the colonies.12 The response to this new attempt to tax the colonies was swift. Pennsylvania representative John Dickinson wrote his series, Letters from a Farmer in Pennsylvania (1767–1768), which called for unification of the colonies in opposition to the tax. In Boston, town leaders urged more local production of paper and glass, and supported reducing dependence on other imported products, calling lead, paint, and tea “superfluous.”13

A defining moment for colonial unification came in February 1768, when the Massachusetts House of Representatives voted to distribute the Circular Letter to the other colonial assemblies. The Letter, like Dickinson’s Letters from a Farmer, called for the colonial legislatures to respond as a united front: “It seems to be necessary that all possible care should be taken that the representatives of the several assemblies, upon so delicate a

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10 Sections of the Revolutionary War context are paraphrased in part from the contexts developed for First State National Historical Park Historic Resource Study (Paula S. Reed and Edith B. Wallace, First State National Historical Park, Delaware, Historic Resource Study, September 2018).


12 Middlekauff, The Glorious Cause, 150.

Building a New Nation

point, should harmonize with each other.”\textsuperscript{14} The authors, James Otis and Samuel Adams, ended the Letter with the now oft-repeated complaint:

that the Acts made there, imposing duties on the people of this province... are infringements of their natural and constitutional rights; because, as they are not represented in the British Parliament...\textsuperscript{15}

It would become the rallying cry of rebellion: “no taxation without representation.”

The New Jersey legislature was among the first to respond in unity with the Massachusetts sentiment, with a letter of support. Then on May 6, 1768, the New Jersey legislature sent a petition to the King to protest the taxation without representation.\textsuperscript{16} In August 1769, New Jersey was represented at a Massachusetts gathering of the Sons of Liberty, a group which had established themselves as freedom-fighters during the 1765 Stamp Act uprising. John Adams recorded (in his personal journal) that at the August ‘Festival, “Mr. [Joseph] Reed the Secretary of New Jersey” and Philemon Dickinson, both of Trenton, dined with him and “350 Sons of Liberty.” The purpose of “these Festivals,” wrote Adams, was to “tinge the Minds of the People” and “impregnate them with the sentiments of Liberty,” though he observed that Reed and Dickinson were “cool, reserved and guarded all day.”\textsuperscript{17}

In 1770, Parliament repealed all the duties in Townshend’s Revenue Act, except for the one on tea, which they left in place to affirm that they had the power and authority to set taxes as they saw fit. The retained tax on tea eventually led to the Boston Tea Party on December 16, 1773, in which colonial patriots dumped a shipment of English tea into the Boston Harbor rather than pay the tax. The act of defiance ignited a rebellious fire in the hearts of many colonials.\textsuperscript{18}

In response to the destruction of tea in Boston Harbor, Parliament established the Coercive Acts—called the Intolerable Acts in America—to punish Massachusetts and to set an example for the other colonies. Among these acts was one closing the port of Boston, enforced by British troops. The colonies again united in their opposition, calling for a meeting of the First Continental Congress. In Essex County, New Jersey, locals called a public meeting of all “the free holders & Inhabitants of the County” to prepare a

\textsuperscript{15} “Massachusetts Circular Letter”; Middlekauff, The Glorious Cause, 159–162.
\textsuperscript{18} Middlekauff, The Glorious Cause, 227.
Resolution of unity with “our Sister Colonies on this alarming occasion.” The Essex County men demanded repeal of the Acts, supported a boycott of British imports, and committed representatives to a gathering of all the New Jersey counties, including several Elizabeth-Town lawyers and Henry Garritse, a farmer from Acquackanonk. Their Bergen County neighbors, largely of Dutch descent and typically more conservative in their politics, published a letter of support in May, “dreading a State of Anarchy and Confusion, which will necessarily attend the present struggle for our Liberty unless the proper steps are taken to preserve Regularity and Unanimity among us.” In July, county representatives from throughout the province of New Jersey met to issue similar resolutions as a united body and to appoint New Jersey delegates to the First Continental Congress.

Though viewed as illegal by loyalists, the First Continental Congress, a gathering of representatives from twelve of the thirteen colonies (Georgia did not attend), met in Philadelphia in September and October of 1774. Six documents came out of this first meeting, including a list of grievances and a petition to the King. While some colonies continued to hold out hope for reconciliation with England, most already envisioned an independent post-colonial union. Compromise prevailed this time, though representatives called for a boycott of English goods shipped to American ports.

Alexander Hamilton was a student at King’s College (later renamed Columbia University) in New York as these events unfolded. The Boston Tea Party prompted Hamilton’s foray into public writing, first defending the rebellious act and later defending the Continental Congress against Tory loyalist attacks. His fiery style was in stark contrast to Thomas Jefferson’s more-philosophical entreaties, notes historian John Ferling, but belied Hamilton’s more conservative, conciliatory stance. With much of his training having been in the merchant trade, Hamilton believed Parliament was justly positioned to regulate commerce with the American colonies. Still, in A Farmer Refuted, his answer to a Tory pamphlet by “A.W. Farmer,” Hamilton appeared to be leaning toward revolution. “There is a certain enthusiasm in liberty,” wrote Hamilton, predicting that Britain would not win a war in the American colonies. With an aspiring officer’s eye, he noted that the American landscape did not favor the British Army because “there are no large plains for the two armies to meet in and decide the contest by some decisive stroke.” Hamilton suggested Americans should adopt a strategy “to harrass and exhaust the soldiery, by frequent


20 “The Bergen County Association,” New Jersey in the American Revolution.

21 The Resolves of the New Brunswick Convention,” New Jersey in the American Revolution.

22 John Ferling, Jefferson and Hamilton: The Rivalry that Forged a Nation (New York: Bloomsbury Press, 2013), 36–37. Hamilton was born and raised in the Danish West Indies. Orphaned at thirteen, he found work on St. Croix as a clerk in a trading firm that was based in New York (Ferling, 14–15).
skirmishes and incursions…” As the colonies moved ever closer to rebellion against king and country, Hamilton would play an important role as soldier, while Jefferson would make his mark as politician.

A Second Continental Congress was scheduled to meet in May 1775. Just one month before that meeting, the war for American independence began when colonial militia and British soldiers clashed at Lexington and Concord in Massachusetts. As predicted by Hamilton, the American rebels calling themselves Patriots or Continentals faced a disciplined army which struggled with the terrain. The Patriots held their own in these first battles by the force of ardent patriotism and a warning system arranged by Paul Revere. With the battles at Lexington and Concord still fresh, the Second Continental Congress once again produced documents attempting to seek reconciliation, but this time included the suggestion that the Americans were prepared for a long fight.

Throughout the colonies, new provincial assemblies convened in direct defiance of the elected legislatures tied to the royally appointed governors. Local committees were assigned the task of electing delegates, disseminating information, and ferreting out loyalist pockets.

Northern New Jersey in the American Revolution

In May of 1775, opponents of New Jersey’s royal government called a meeting of the Provincial Congress to push forward a non-conciliatory response to British oppression in Boston, Massachusetts. Like those created in other provinces, the assembly was in defiance of the established New Jersey legislature, which even as late as November 1775 resolved to support reconciliation with Great Britain. However, support for reconciliation in New Jersey was waning.

Although northern New Jersey still contained a larger proportion of loyalists, Bergen, Essex, Morris, and Sussex Counties each had active committees and sent delegates to the Provincial Congress in May 1775. In Essex County, the “Freeholders and Inhabitants of Acquackanock” were among the first municipalities in the region to respond to the call for delegates to the new Provincial Congress, calling a meeting on May 3, 1775.
those elected to the General Committee was Abraham Godwin, whose tavern attracted
visitors to the Great Falls of the Passaic, and Henry Garritse, who was among the Essex
men who had responded to the Intolerable Acts of 1773. Garritse was elected delegate to
the “Provincial Convention,” along with Robert Drummond, Michael Vreeland, and John
Berry, all residents of Acquackanunk Township.27

In June 1775, the New Jersey Provincial Congress voted to raise a militia “for
defending the cause of American freedom.” 28 Abraham Godwin submitted his name for a
commission in the New Jersey Militia, but was “set aside” when a member of the Congress
was given the commission. Godwin instead obtained a captain’s commission in the New
York Militia in early 1776. 29 Abraham Godwin’s New York creditor, a Tory loyalist, report-
edly called in his debts as punishment for his support of the rebellion, for which Godwin
sold much of his property to Jacob van Winkle, including the tavern at the Great Falls.30

On July 4, 1776, the Continental Congress approved the Declaration of
Independence, creating a union of independent states formed from the former British
colonies.31 The British Army was backed by the most powerful navy in the world, making
the coastal colonies vulnerable at the ports of entry. In August, the British took Long
Island, and, after the American defenders’ retreat, Manhattan.32 In November, General
George Washington’s Continentals failed to hold Fort Lee on the west bank of the Hudson
in northern New Jersey, despite reinforcements from Trenton, who crossed the Passaic on
the Acquackanunk bridge.33 The remaining months of 1776 saw the Americans retreat
through Acquackanunk Township to Newark, then south to New Brunswick, Princeton,
and Trenton, where they crossed the Delaware River into Pennsylvania.34 In December, the
British troops, under the command of Generals Howe and Cornwallis, went into winter
quarters, stretched across New Jersey from New Brunswick to Trenton.

On December 24, General Washington famously ordered a surprise attack, crossing
the Delaware River to Trenton by night and securing the town by morning. Continentals
soon secured Princeton, Burlington, Elizabeth-Town, and Hackensack, settling in

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27 Minutes of the Provincial Congress, 110.
28 Minutes of the Provincial Congress, 179.
29 Journals of the Provincial Congress, Provincial Convention, Committee of Safety and Council of Safety of the
state of New-York: 1775–1777 (Albany: Printed by Thurlow Weed, printer to the State, 1842), 132, accessed
30 Marcia Dente, Paterson Great Falls: From Local Landmark to National Historical Park (Charleston, SC: The
Jersey in the American Revolution)
32 Middlekauff, The Glorious Cause, 340–346. Twenty-one year old Captain Alexander Hamilton commanded a
New York artillery company that participated in the fight on Long Island and the narrow escape from Manhattan.
(Ferling, Jefferson and Hamilton, 62–63)
33 Nelson and Shriner, History of Paterson, 208.
Morristown for the rest of the winter. The calculated move by Washington had the planned positive effect—at least temporarily—on bolstering the morale of his troops and the support of the New Jersey citizenry.35

Early in 1777, while still encamped in their Morristown winter quarters, General Washington requested Alexander Hamilton to serve as one of his aides-de-camp, a position he held through 1780.36 An astute observer, Hamilton reported in April to the New York Provincial Congress that General Howe was loading British troops onboard transports “at the Hook [Sandy Hook], by way of Staten Island,” speculating that their destination was likely Philadelphia.37 It was not until June, however, that Howe’s troops actually left New Jersey. Sailing around to the Chesapeake Bay the British pushed through Washington’s defense and captured Philadelphia in September. While Howe wintered in the city, Washington’s Continentals suffered through the 1777-78 winter of extreme cold and supply shortages at Valley Forge.38

Though the winter of 1778 was a difficult one for Washington’s troops at Valley Forge, Benjamin Franklin’s negotiations toward an alliance with France bore fruit. In a treaty signed in February 1778, France committed itself to “the independence of the United States,” promising military aid after a French declaration of war against Britain. With England now fighting two wars, the Americans slowly began to gain the upper hand in the fight against the British Army. Taking the war into the southern colonies, the British struggled with an increasingly unconventional war, as American patriots engaged in less “conventional” warfare. The British suffered too from insufficient supplies as they moved inland away from supply ships.

The British troops who occupied Philadelphia removed in the summer of 1778, heading back to New York. Though Washington attempted to prevent it, his failure (or Gen. Charles Lee’s failure) at Monmouth resulted in the renewed British occupation of New York.39 Thus from June 1778 through 1780, American encampments concentrated in northern New Jersey, often passing through Acquackanonk, Totowa, and Pompton. In July 1778, the Continentals rested at Paramus after the Battle at Monmouth Court House. En route to join his troops, General Washington and his staff crossed the Passaic River “at an old bridge in very bad repair and in half a mile reached the falls,” recalled one of his aides, James McHenry:

After viewing these falls we seated ourselves round the General under a large spreading oak within view of the spray and in hearing of the noise. A fine cool

36 Ferling, Jefferson and Hamilton, 67.
37 Journals of the Provincial Congress…New York, 436.
spring bubbled out most charmingly from the bottom of the tree. The travelling canteens were immediately emptied and a modest repast spread before us, of cold ham, tongue and some biscuit. With the assistance of a little spirit we composed some excellent grog. Then we chatted away a very cheerful half hour and then took our leave of the friendly oak its refreshing spring and the meek falls of Pasaic less noisy and boisterous than those of Niagara, or the more gentle Cohoes or the waters of the Mohawk.40

Among those present at this pleasant picnic were several of Washington's aides, including McHenry and Colonel Alexander Hamilton, as well as the Marquis de Lafayette.

Leaving their 1779–80 winter quarters in Morristown in the summer 1780, Washington returned to the Great Falls of the Passaic first in July and again in October. There he established a large encampment of troops on the expansive open grounds north of the Falls. Historian William Nelson (1920) detailed the locations of the various brigades:

Figure 17: Map Showing the location of the American Army, 1780. (Nelson, History of Paterson, 236)

On July 4, 1780, Washington had arrived from Ramapo with his army at Totowa, where he spread out his troops, while he established his head quarters in the handsome and spacious residence of Col. Theunis Dey, at Lower Preakness... The main body of the army was encamped along the Totowa heights, near the Great Falls, the centre on the high ground back of the present Laurel Grove cemetery, the right toward Little Falls, and the left at or near Oldham (Haledon). Col. Stephen Moylan’s Pennsylvania dragoons occupied an advanced position, at Little Falls, southeast of the river, toward the Notch. The Marquis de Lafayette had his headquarters at the grist-mill of Samuel Van Saun, near the race track at Lower Preakness, about a mile and a half north of Washington’s headquarters.

... The broad plateau extending for half a mile or more from the mountain to the river, at an elevation of fifty to one hundred and fifty feet above the stream, not only afforded fine opportunities for exercising the troops in military evolutions, but was also well adapted for defensive purposes. The Grand Parade ground was near the Falls, on an extensive bare field, known and used eighty or ninety years later (1860–70) as the “Cricket ground,” in the Totowa region of the present Second ward of Paterson (today’s Vista Park).41

The encampment was in preparation for an attack on New York, a plan abandoned by the Americans when British ships entered the Hudson River. Instead, the troops moved again to winter quarters in Morristown.

General Washington’s continued focus on New York from 1778 through 1780, despite increasing British pressure in the southern colonies, was largely due, according to Washington, to the failure of Congress to fund additional soldiers and supplies.42 Writing to George Mason from his headquarters at “Passaic Falls,” Washington complained that his volunteer army lacked food, clothing, “and shortly shall be (in a manner) without men.” He suggested the need for “a permanent force, not a force that is constantly fluctuating and sliding from under us as a pedestal of ice would do from a statue in a summer’s day” and a “means to aid our Taxes by Loans, and put our finances upon a more certain and stable footing than they are at present.”43

General Washington’s commitment to the war in the South improved in 1780 when he recommended that Congress appoint Nathanael Greene to command the Southern Department, and in early 1781, he sent Lafayette with 1,200 Continentals to support the fight in Virginia.44 In October 1781, French and American troops laid siege to Yorktown,
Virginia, occupied by British regulars under the command of General Cornwallis. Though Cornwallis' surrender at Yorktown did not immediately end the war, it hastened efforts in England to bring the conflict to a conclusion. In the spring of 1782, representatives of the British government entered into peace talks with the American peace commission. The two parties signed a preliminary agreement in November 1782 and signed the Treaty of Paris on September 3, 1783.

Competing Political and Economic Visions for the New Nation

The peace agreement of 1783 established the United States of America as a nation recognized by Great Britain and other European governments and set official United States boundaries. The United States confederacy was now free to govern itself. The Articles of Confederation and Perpetual Union, ratified by all thirteen states between 1777 and 1781, was considered by many, however, to be an imperfect governing document giving too much power to the individual states. Many, like Alexander Hamilton, believed a stronger central government would stabilize the United States' economy and improve prospects for the future.

In his 1775 treatise, A Farmer Refuted, Alexander Hamilton mused on the economic potential of an independent America:

Nature has disseminated her blessings variously throughout this continent: Some parts of it are favourable to some things, others to others; some colonies are best calculated for grain; others for flax and hemp; others for cotton; and others for live stock of every kind: By this means, a mutually advantageous intercourse may be established between them all. If we were to turn our attention from external to internal commerce, we should give greater stability, and more lasting prosperity to our country, than she can possibly have otherwise.

In this pastoral view of commerce, it would appear that his thoughts aligned with Thomas Jefferson’s vision of an American agrarian republic. Hamilton’s attentions continued toward manufacturing, though in 1775 that was still largely composed of skilled mechanics in relatively small-scale shops:

45 Middlekauff, The Glorious Cause, 573–575.

46 Middlekauff, The Glorious Cause, 598–600. The United States government under the Articles of Confederation also lacked an executive and judicial branch, and Congress was a single entity not directly elected by the people. (Middlekauff, 621).

But, it is said, we have no persons to manufacture our materials, after we have provided them. Among the swarms of emigrants, that have within these few years past, come to the continent; there are numbers of manufacturers, in the necessary branches. These, for want of encouragement in their own occupations, have been obliged to apply themselves to other methods of getting a living; but would be glad of an opportunity to return to them. Besides these, we should soon have a plenty of workmen, from Britain and Ireland: Numbers, who would be thrown out of employ there, would be glad to flock to us for subsistence. They would not stay at home and be miserable, while there was any prospect of encouragement here. Neither is there any great difficulty, in acquiring a competent knowledge of the manufacturing arts. In a couple of years many of our own people might become proficient enough, to make the coarser kinds of stuffs and linens.48

Even as late as 1789 Hamilton still acknowledged in his trade “conversations” with British government minister George Beckwith that the young United States was “rather an Agricultural, than a manufacturing people.” However, Hamilton continued the conversation by leveraging American manufacturing potential:

our policy has had a tendency to suggest the Necessity of introducing manufactures, which Accordingly have made some progress in Connecticut, where Cloth has been manufactured to some Extent, leaving already a clear profit of between six and seven per cent to the proprietors, and Pensylvania [sic] has gone further in her Exertions in different branches.49

Clearly, by the late 1780s, Hamilton understood the prospective economic power of American manufacturing.

Thomas Jefferson, on the other hand, was repelled by the new model of manufacturing, particularly after seeing firsthand the results of the Industrial Revolution in England and France in 1787. Jefferson feared a moral decline in “the mobs of the great cities” which would surely rise from industrialization. He wrote, “While we have land to labour then, let us never wish to see our citizens occupied at a work-bench, or twirling a distaff. Carpenters, masons, smiths, are wanting in husbandry: but, for the general operations of manufacture, let our work-shops remain in Europe.”50

These fundamental differences of opinion extended to the role of the emerging United States government in the life of the American economy and the lives of American

citizens. While Jefferson envisioned a Republic of strong state governments and a weak central government, Hamilton supported a strong Federal government with the power to levy taxes and to regulate interstate trade. His thoughts evolved through the war as he personally experienced the effect of Congress’ inability to collect taxes, relying instead on state requisitions. Some states jealously reserved their tax receipts to support the state militias, resulting in perennial supply shortages within the Continental Army and delayed payments to the officers and soldiers. Hamilton commented on the dangers of “A Want of Power in Congress,” in his six essays written in 1781 under the title “The Continentalist.” In his final installment, published on July 4, 1782, he declared the proposed Articles of Confederation inadequate for the needs of the new nation, giving “the appearance only of union” judged as “weak and insignificant… in the eyes of other nations.” Hamilton concluded, “There is something noble and magnificent in the perspective of a great Federal Republic, closely linked in the pursuit of a common interest, tranquil and prosperous at home, respectable abroad.”

The shaky confederation of the United States struggled through the next four years. After the successful negotiations between Maryland and Virginia to regulate their interstate trade in 1786 and the tax revolt known as Shay’s Rebellion in Massachusetts, Congress resolved in February 1787 to convene a full convention of state delegates to discuss a revision of the Articles of Confederation. The Constitutional Convention met in Philadelphia from late May through mid-September 1787. For nearly four arduous months, delegates from twelve of the thirteen states (Rhode Island was not represented) hammered out their vision of the new republic.

Popular representation (based on population figures) versus state representation in Congress remained one of the important points of debate through the first half of the convention, pitting the larger states—particularly Virginia, Pennsylvania, and Massachusetts—against the smaller states of Delaware, Maryland, New Jersey, and Connecticut. James Madison wrote of the debate in his record of the convention:

The States of NJ & Del. were opposed to a National Govt. because its patrons considered a proportional representation of the States as the basis of it…. Some of the members from the small States wish for two branches in the General Legislature, and are friends to a good National Government; But would sooner submit to a foreign power than submit to be deprived of an equality of


Building a New Nation

suffrage, in both branches of the legislature, and thereby be thrown under the
domination of the large States.53

New Jersey delegate William Paterson submitted a proposal known as the New Jersey plan,
in which each state would retain equal representation in Congress, which failed to pass.

The final resolution, known as the “Great Compromise,” came in July, based upon
a Connecticut delegation proposal. The House of Representatives would be popularly
elected with “one representative for every 40,000 inhabitants, the count to reckon five
slaves as three freemen,” intended to satisfy both the larger states and the southern states.
The Senate, elected by members of the House of Representatives, was to have equal represen-
tation for each state in the form of two senators, regardless of population, which satis-
fied the smaller states. The convention approved the compromise on July 16 by a narrow
margin: Delaware, Maryland, New Jersey, Connecticut, and North Carolina in favor,
Pennsylvania, Virginia, South Carolina, and Georgia opposed, with Massachusetts divided
in its vote and New York unrepresented at the time of the vote.54 Though there was still a
great deal of work to do, with perhaps the stickiest of points now resolved, the delegates
moved on to complete the task.

On September 17, 1787, the convention approved and signed a draft of the new
Constitution. It would now go to the states for ratification, requiring nine of the thirteen to
ratify before the document could go into effect.55 The New Jersey ratification convention
met in December 1787. John Chetwood, Samuel Hay, and David Crane sat as delegates
from Essex County. The convention approved ratification in just six days and on December
18, 1787, New Jersey became the third state to ratify the new US Constitution.56 Other
states, like New York and Virginia where anti-Federalist arguments held sway, took more
time. Alexander Hamilton, James Madison, and John Jay bolstered support for the

ry/debates_615.asp#pat.

54 Middlekauff, The Glorious Cause, 639–641. A later amendment to the Constitution would alter the Senate
elections to popular votes. The Great Compromise was described in The Federalist Papers, essay number 62
titled “The Senate,” (written by either Alexander Hamilton or James Madison) as “the lesser evil” given the
competing principles of the larger states versus the smaller states. On a more positive note the writer pointed out
the advantages likely to arise from the compromise: “that the equal vote allowed to each State is at once a
constitutional recognition of the portion of sovereignty remaining in the individual States, and an instrument for
preserving that residuary sovereignty. … Another advantage accruing from this ingredient in the constitution of
the Senate is, the additional impediment it must prove against improper acts of legislation. No law or resolution
can now be passed without the concurrence, first, of a majority of the people, and then, of a majority of the
the-federalist-papers/)


 nj.gov/state/archives/docusconstitution.html.
Constitution in a series of essays known as *The Federalist*. By September 1788, the required nine states had ratified the Constitution and a new government was born.57

**Alexander Hamilton and Tench Coxe:**
**Developing the Independent American Economy**

On August 13, 1788, Alexander Hamilton wrote a letter to the now-retired General George Washington, which included an implied request for Washington to serve as the new nation’s first president: “You will permit me to say that it is indispensable you should lend yourself to its first operations.” Though Washington replied that he wished only “to live and die, in peace and retirement on my own farm,” he did in fact agree to serve.58 Shortly after his inauguration, Washington tapped Hamilton to be the first US Secretary of the Treasury.

Alexander Hamilton came to the job with energy and extensive plans to create a firm financial foundation for the United States’ federal government, focusing on “a central bank, a funded debt, a mint, a customs service, [and] manufacturing subsidies.”59 Among his first efforts was the establishment of a National Bank. In answer to his critics, Hamilton wrote in his final report that the public benefit of secure credit—secured by the federal government in part by deposits of gold and silver and by “the public debt”—was its vital role in promoting investment in the nation’s economy. Specifically, Hamilton believed that the investments in “support of industry” would correct the “wrong balance of trade,” a consequence of previous colonial status.60 Many of his arguments had developed years earlier in 1781, in discussions with Robert Morris, the Philadelphia financier who helped establish the Bank of North America to support the war effort.61

Figure 18: Alexander Hamilton, by Thomas H. Crawford (Library of Congress)
Hamilton’s efforts focused on forging a financial system which would support American trade, land acquisition, and manufacturing. His *Report on Public Credit* was followed by a *Report on the Mint*, and finally, his *Report on Manufacturing*. Secretary Hamilton was aided by a staff of thirty-nine—the largest of the three newly created cabinet offices (Treasury, State, and War). Initially Hamilton employed his King’s College friend William Duer as assistant secretary, a position from which Duer resigned within seven months amid rumors of speculative improprieties. Tench Coxe, who followed Duer as Hamilton’s assistant secretary, would prove central to Hamilton’s plan to advance American manufactures.62

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In January 1790, the US House of Representatives requested that Hamilton produce a Report on Manufactures as they currently existed in the United States and asked him to determine “the means of promoting such as will tend to render the United States independent of foreign nations for military and other essential supplies.” To aid in the research and preparation of the report, Hamilton hired Tench Coxe in May 1790. Coxe was the secretary of the Pennsylvania Society for the Encouragement of Manufacturers and the Useful Arts and a well-known author of articles propounding the importance of industry in the new American economy. Coxe and Hamilton shared a deep frustration with Britain’s protectionist policies, which prevented the export of the technology and skilled workers who could help build America’s manufacturing sector. While Hamilton’s interest steered more to the investment and trade opportunities presented by American manufactures, Coxe’s thoughts extended to the benefits that industry could bring to an equally agrarian society. Tench Coxe’s vision essentially melded Hamilton’s political (Federal) economy with Jefferson’s agrarian republic, writing in 1787, “the produce of the southern states should be exchanged for such manufactures as can be made by the northern, free from impost.”

In the summer of 1791, Secretary Hamilton sent out official requests for information from the various states on the manufactures within their borders. He received detailed responses from the New England states, where industry already had a significant foothold in the region’s economy. Of special interest was the report from Moses Brown, owner of the Rhode Island cotton mill trading as Almy and Brown. Brown had circumvented the British prohibition when he employed Samuel Slater to reproduce the state-of-the-art waterpower-driven spinning machines from the Arkwright Mills in England where Slater had been an apprentice. The resulting higher quality thread and increased production capabilities made this mill an example of Hamilton’s vision for American manufacturing. In contrast, the Mid-Atlantic States provided very little information. The single report from New Jersey detailed only the iron works located in the area of Morristown. Though the state featured ample waterpower sources and a long history of flour, grist, and fulling mills, larger-scale manufacturing had apparently not yet taken hold in New Jersey.

Tench Coxe, whose familiarity with the subject of manufacturing and trade would prove exceedingly useful, compiled the data from the state reports and prepared two initial
Building a New Nation

drafts of the Report on Manufactures. In Coxe’s second draft, he began by summarizing what he believed to be the salient points for encouraging American manufactures:

The expediency of encouraging manufactures in the United States, tho recently deemed very questionable, appears at this time to be generally admitted. The advantages of the Landholder in furnishing raw materials, subsistence, fuel and other supplies to the workmen—the support which the fisheries derive from them by their consumption of articles drawn from the ocean—the assistance given to external commerce by promoting the importation of raw articles and furnishing manufactured commodities for exportation—their favorable effects on population by inducing the emigration of foreign artists and laborers—the introduction of money by offering a new & promising field to capitalists of other nations—the promotion of individual industry & economy which naturally result from manufactures and particularly when engrafted upon an extensive agriculture—their encreasing and rendering more certain the means of defence and other articles of prime necessity and lastly the Reduction of the prices of convenient & essential supplies for public & private use, which has already taken place on the appearance of competition from the American manufacturer are among the considerations, which have produced more favorable opinions concerning this object.68

Though this paragraph did not appear in the final draft of the report, ensuing drafts prepared by Secretary Hamilton made clear that the two men collaborated on interpreting the data.69 However, most scholars agree that it was Hamilton who penned the final report. Arthur Harrison Cole, editor of a compendium of Hamilton’s manufacture-related papers, summarized the significant points drawn by Hamilton (and by extension, Coxe) in the December 1791 report submitted to Congress:

1. Manufactures promote a greater division of labor than agriculture, and “there is scarcely anything of greater moment in the economy of a nation than the proper division of labor.” Thereby “an increase of productive industry is assured.”

2. Manufactures lead to an extension in the use of machinery, and in this way “an artificial force” is in production brought to the aid of “the natural force of man.”


3. They add to the productivity of the country by giving employment to “classes of the community not originally engaged in the particular business.”

4. They encourage the immigration of foreign workmen.

5. They furnish “greater scope for the diversity of talents and dispositions which discriminate men from each other.” And this proposition, it may be added, grew into a distinct and notable argument for protection, commonly spoken of in Hamilton’s own phrase as the “diversity of talents” argument.

6. Manufactures afford “a more ample and various field for enterprise”; and “to cherish and stimulate the activity of the human mind by multiplying the objects of enterprise is not among the least considerable of the expedients by which the wealth of a nation may be promoted.”

7. And, finally, the establishment of manufactures contributes to an “augmentation of the produce or revenue of the nation” through “creating, in some instances, a new, and securing in all a more certain and steady demand for the surplus produce of the soil” and here is the origin of another protective argument, the so-called “home market” plea, which in the hands of Henry C. Carey and others came to have exceptional influence in American thought.\(^7^0\)

Though Congress did not immediately act on the recommendations laid out in the *Report of Manufactures*, Hamilton had already taken steps to enact his own manufacturing experiment.

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Conclusion

US manufacturing and commerce emerged from America’s war for independence already at a disadvantage from its colonial status under British rule. Restrictive legislation in Great Britain and other European countries compounded the problem, from ports closed to US shipping in England, France, and Spain, to lower shipping and interest rates for British companies, putting American commerce at a financial disadvantage. Britain had more skilled mechanics and unskilled laborers, with strict laws preventing them from removing themselves—and their knowledge of manufacturing processes—to the United States, where wages were higher. On the other hand, US agriculture and abundant natural resources were perfectly suited for manufacturing enterprises. American farms produced cotton and wool for textiles, American forges produced iron, and American rivers provided a cheap, accessible source of power. Early milling, mining, and ironwork laid the foundation for industrial development after the American Revolution. Both Alexander Hamilton, as Secretary of the US Treasury, and his able assistant Tench Coxe, saw the potential for US manufacturing as the anchor for a thriving US economy which would support—and be supported by—the vast agricultural potential of the United States.

In his position as Secretary of the Treasury, Alexander Hamilton was poised to facilitate the American Industrial Revolution. Hamilton sought to demonstrate the economic power of industry by establishing a manufacturing company which would supply a variety of products on a national scale. New Jersey would become the incubator for the project.
The more I have considered the thing, the more I feel persuaded that it will equally promote the Interest of the adventurers & of the public and will have an excellent effect on the Debt.

Alexander Hamilton to William Duer
April 20, 1791

Introduction

Even before the publication of the Report on Manufactures in December 1791, both Alexander Hamilton and Tench Coxe already had firsthand knowledge of investment associations for capitalizing manufactures. As early as 1789, Hamilton became an investor in the New York Manufacturing Society and was reportedly a “charter subscriber” in a Manhattan woolen factory.¹ Fourteen years earlier, in 1775, Tench Coxe invested with The United Company of Philadelphia for Promoting American Manufacturers. Described as “The first joint-stock company for textile manufacturers,” the company initially did well but ceased operations during the British occupation of Philadelphia:

In 1778 it was reorganized as the Pennsylvania Society for the Encouragement of Manufacturers and the Useful Arts, with [Samuel] Wetherill and Tench Coxe as the principals. It soon had four jennies with over two hundred spindles, a carding machine, and twenty-six power looms in one central factory, and was manufacturing cloth by thousands of yards.²

Though not long-lived owing to the American Revolution, the Pennsylvania Society was certainly at the forefront of American industrial development. No doubt Hamilton and Coxe’s experiences with these early concerns influenced Hamilton’s decision to establish the Society for Establishing Useful Manufactures (S.U.M.) as a state-chartered corporation.

¹ Chernow, Alexander Hamilton, 371.
American Corporations in the Late Eighteenth Century

Corporate charters were, and continue to be, in the purview of the state governments rather than the federal government. This appears to be a holdover from the colonial period, when royal governors and assemblies, as well as proprietors, granted charters, generally for the incorporation of municipalities, churches, and colleges, presumed to be sanctioned by the King and Parliament. After the American Revolution, the practice continued under state governments, either through special legislative charters or statutes enacted to provide for “corporations by prescription.”

Like the early American joint-stock companies, late eighteenth-century corporations were a tool for capitalizing large projects which, at least ostensibly, served a public purpose. Many of the undertakings capitalized by corporations were, in fact, public projects such as canals, bridges, and roads. But under the governance of a corporation, these public projects were privately-owned and subject to tolls or fees for public use. George Washington’s Potowmack Navigation Company, chartered by Maryland and Virginia in 1784/85, was among the earliest such corporations. Early manufacturing corporations, like the Beverly Cotton Manufactory chartered in Connecticut in 1789, advertised their primary public benefit as a source of employment for women and children. The state legislature agreed noting, “It is essential to the true interest of this Commonwealth, to encourage within the same, the introduction and establishment of such manufactures as will give the most extensive and profitable employment to its citizens.”

Banks and insurance companies also took advantage of legislative charters by touting their public benefit, the Bank of North America being the first in 1781.

Incorporation through state legislative charter was perhaps most attractive to investors because it provided an added layer of government-sanctioned protection. As early as 1770, George Washington “urged the advantage of getting legislative authority” to attract investors to their Potomac River navigation scheme:

if the subscriptions were vested by the two legislatures, with a kind of property in the navigation… to be re-imbursed their first advances with a high interest thereon, by a certain easy toll on all craft… you would add thereby a third class

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of men... I mean the monied gentry, who tempted by lucrative views would advance largely on account of the high interest.9

Washington noted that such public-private partnerships were common in England (still the mother country in 1770) among the canal and turnpike companies.

In the post-Revolution atmosphere of the 1780s, it was perhaps because incorporation was associated with the kind of government intrusion from which Americans had just fought to free themselves that only twenty-eight corporations received legislative charters. In the 1790s, under the influence of Washington’s Federalist administration, with Hamilton at the helm of the Treasury, corporate charters surged to nearly three hundred.10 Resistance continued among Jeffersonian Republicans, however, who viewed the legislated incorporations as giving an unfair advantage to the monied few over the hardworking farmers and artisans which formed the bulk of the American citizenry.

In concluding his Essays in the Earlier History of American Corporations, Number IV, Joseph Stancliffe Davis observed the following about incorporation:

In certain fields it fully justified the sanguine hopes of its promoters and the public, and was a highly important factor in the country’s progress. This was true notably in banking, insurance, bridge and turnpike building. In other fields, notably manufacturing and the improvement of inland navigation, it was a disappointment....11

In the case of Hamilton’s S.U.M. experiment—an expansive manufacturing company unlike any envisioned in the United States—the initial outcome might have appeared to be a disappointment, but in the longer view, it accomplished many of the objectives they set out to achieve.

Prospectus and Charter of the Society for Establishing Useful Manufactures

Even before Congress commissioned Hamilton’s Report on Manufactures, it appears a plan for the Society for Establishing Useful Manufactures (S.U.M.) was underway. Although most historians credit Alexander Hamilton with initiating the S.U.M. in 1791, it appears that Tench Coxe hatched a similar scheme a year earlier. On January 11, 1790, Tench Coxe signed an agreement with George Parkinson, an English weaver Coxe had

9 George Washington letter to Thomas Johnson, July 20, 1770, as cited in Corra Bacon-Foster, Early Chapters in the Development of the Potomac Route to the West (New York: Burt Franklin, reprint 1971), 19; Davis, Essays, 112.


11 Davis, Essays, No. IV, 330.
enticed to immigrate to the United States. Parkinson brought with him “the Knowledge of all the Secret Movements used in Sir Richard Arkwright’s Patent Machine,” and agreed to design an improved model in a financial partnership with Coxe.12

Tench Coxe alluded to the idea of manufacturing on a large scale in his February 1790 letter to Secretary Hamilton, written in response to one of Hamilton’s official inquiries. Noting that the idea of American manufactures had been “ridiculed” at home and abroad, Coxe continued:

when they see a Manufacturing interest grow up in our Country in a ratio of advance unequalled by any thing but the rise of new lands and that the means of further improvement & final success have become matter of absolute demonstration here and that orders for certain Species of Goods are yearly decreas’d abroad, they consider the versatility, industry & capacity of our people in a very favorable point of light.13

In April 1790, Hamilton requested that Coxe accept an appointment as assistant secretary of the Treasury Department, rightly convinced of his potential “usefulness in that station.”14 It is likely that Coxe would have shared his manufactory scheme with Hamilton as their intense collaboration began in preparing the Report of Manufactures.15 Ron Chernow, author of a 2004 biography of Alexander Hamilton, states that it was not until April 1791 that “Hamilton had lent his prestige to Coxe’s plan for a manufacturing society.”16 Indeed, a reference to the scheme appeared in the third draft of the Report on Manufactures later that year: “An association however has lately been set on foot to carry on the cotton branch with a force of capital and means which with the due countenance of government can hardly fail of success and which promises an acquisition of incalculable value to the United States.”17

Tench Coxe’s association with the scheme appears to have faded as Hamilton took on the project with enthusiasm. Hamilton quickly enlisted his friend William Duer, well-known among the monied men interested in corporate stock speculation, to raise the profile of the S.U.M. as an investment opportunity.18 By April 29, 1791, there were already

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16 Chernow, Alexander Hamilton, 372


forty-one subscribers to the company and a plan to pursue a corporate charter from the state of New Jersey. Nine men were assigned the task of acquiring the charter: Elias Boudinot, Herman Le Roy, William Constable, Phillip Livingston, Nicholas Low, Richard Platt, Matthew McConnell, Blair McClenaghan, and William Duer.¹⁹

In August 1791, while the efforts in the New Jersey legislature were underway, Hamilton produced a prospectus for the S.U.M., drawing heavily on the concepts included in his Report on Manufactures, still in draft form. “To effect the desired association an incorporation of the adventurers must be contemplated as a mean necessary to their security,” wrote Hamilton, continuing with his reasoning for targeting New Jersey as the state of choice. “It is thickly populated—provisions are there abundant and cheap. The state having scarcely any external commerce and no waste lands to be peopled can feel the impulse of no supposed interest hostile to the advancement of manufactures. Its situation seems to insure a constant friendly disposition.”²⁰ US Securities and Exchange Commission (SEC) staffer James Lopez identifies the S.U.M. prospectus as America’s first “initial public offering” or IPO. According to Lopez, it addressed many of the elements required by the SEC for modern IPOs, including price, a business description, and the risk involved for investors.²¹

Published in September 1791 in at least four Philadelphia newspapers and one in Boston, the prospectus provided details of capitalizing the company at $500,000 through the sale of 5,000 shares of stock at $100 per share. The initial risk to investors was mitigated by the statement that, “no subscriber shall be bound to pay until an Act of Incorporation shall have been obtained.” Hamilton identified “dearness of labour” as another risk factor in the prospectus, which he addressed, according to Lopez, with the statements referencing emigrant labor and that “women and even children in the populous parts of the Country may be rendered auxiliary to undertakings of this nature.”²²

The business description detailed a company led by a stockholder-elected board of thirteen directors, who would then elect a governor and deputy governor from among the thirteen. The plan allowed for the hiring of a superintendent to oversee the construction and running of the works. The description included an expansive plan for the future manufactures expected to operate under the S.U.M. umbrella:


²² “Prospectus”
Paper and Pasteboard, Paper hangings, Sail cloth and other coarse linen cloths, such as sheetings, shirtings, diaper, oznaburgs &c., The printing of Cottons and linens; and as incident to this but on a smaller scale the manufacturing of the article to be printed, Womens shoes of all kinds, Thread, Cotton and Worsted Stockings, Pottery and Earthen Ware, Chip Hats, Ribbands & Tapes, Carpets, Blankets, Brass and Iron wire, Thread and Fringes.

Adding, “a brewery for the supply of the manufacturers, as a primary object, may be thought of.” All would be laid out in a “district within a certain defined limit which shall be chosen by the Company as the principal seat of their factories… A part of this ground divided into town lots may be afterwards a source of profit to the Company.”

New Jersey governor William Paterson, who himself was a subscriber to the S.U.M. and namesake for the planned company town called Paterson, helped to push the legislation for incorporation through. On November 22, 1791, the New Jersey legislature passed “An Act to Incorporate the Contributors to the Society for Establishing Useful Manufactures, and for further Encouragement of the said Society.” The charter, which closely followed the wording of the prospectus, provided the company with a generous tax relief package. The Society’s land was exempt from state property taxes, while manufacturers “in the immediate Service of the said Society” were exempt from “Poll and Capitation Taxes, and Taxes on their respective Faculties or Occupations,” and exempt from “General Assessments upon their Persons, Faculties or Occupations.” It gave the power of eminent domain for construction of “inland waterways,” allowed additional capital to be raised through lotteries (to make up for expected initial losses), and included a $10,000 subscription by the state of New Jersey.

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23 “Prospectus”


25 Chernow, Alexander Hamilton, 373; Peskin, Manufacturing Revolution, 114. It is said to be one of the most generous incorporation charters ever given by a state. The tax relief package may be seen as a way to reduce the cost of new manufacturing to make it more competitive with established companies, both in the United States and abroad.
Not everyone was so enthusiastic about the concept for the S.U.M.; in fact there was active and vocal opposition to the publicly chartered “national manufactory.” Many saw the scheme as an affront to the traditional manufacturing trades:

To none is the present period of more consequence than the mechanic; already have monopolies been established at his expense, and should the plans of the secretary of the treasury be executed, they will engulf within their destructive bosom every useful art. . . . What will be the fate of any private manufacturer, who shall see a national manufactory rising into existence, whose workmen shall receive the smiles of government, and have exclusive privileges, such as exemption from militia duty &c? Is not this striking at the root of his subsistence? Fellow citizens, beware. . . .

Philadelphia physician George Logan, president of the “Germantown society for promoting domestic manufactures,” sought to encourage the small-scale artisan manufactures championed by Thomas Jefferson. Logan provided the most prominent voice of the opposition in his pamphlet entitled “Five Letters Addressed to the Yeomanry of the United States: Containing Some Observations on the Dangerous Scheme of Governor Duer and Mr. Secretary Hamilton, to Establish National Manufactory. By a Farmer.” Logan objected particularly to the prospect of the American aristocracy gaining legal advantage over “rights of the great body of yeomanry,” concluding in his Letter IV:

> We ought not to desire the establishment of any kind of manufacture in our country, which cannot support itself, without government granting to its agents bounties, premiums, and a variety of exclusive privileges, in violation of the rights of the people.27

The core of the arguments, which centered opposition to government grants of privilege to capitalists and its detrimental consequences on the rights of the average American citizen (the yeomanry), followed the lines of argument in the political debates of Jefferson and Hamilton. Joseph Stancliffe Davis notes however, that it was not strictly “a partisan attack” or protest against class privilege, but was rooted in “the lurking antagonism against England and things English, for this followed English precedents, and the normal reaction against conspicuous innovations,” concluding, “one cannot wonder that the published criticisms touched a responsive chord in many hearts.”28

### The First Year of the S.U.M.:
#### Location, Location, Location...

Work on the actual operations of the S.U.M. began even before the prospectus was released or the charter acquired. In August 1791, a group of initial subscribers meeting in New Brunswick, New Jersey, authorized Hamilton “to procure artisans for directing the cotton manufacture.”29 However, it appears that Hamilton had already put George Parkinson (originally recruited by Tench Coxe) to work as early as April. Parkinson had recently received one of the first US government patents for his flax mill based upon British designs and Hamilton engaged him to supervise the planned cotton manufactory.30 On July 19, 1791, Hamilton received a letter from Thomas Marshall, who declared himself a former

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employee of Sir Richard Arkwright and builder of “the Cotton Mill in all its branches for a Mr. Callaway of Canterbury, Kent.” Marshall promised not only his skills, but also the skills of others still in England:

The foreman of his Weaving business I am in treaty with and only waits my Letter for to join me, so that the whole Business of Carding, Drawing, Roving, Spinning, Bleaching, and Weaving, can be conducted under one firm, and this, Sir, I pledge myself equal to, and Capable of, and shou’d I be fortunate enough to be honor’d with your Confidence in the Undertaking, nothing shall be wanting to Establish and Speedily bring to its utmost perfection in its fullest Extent the whole of the above Business’s, and entertain no doubts but I can quickly Accomplish it.31

By the end of August, Hamilton had contracted with four mechanics, including Marshall to “superintend the Cotton Mill,” “William Hall, as Superintendent of the Printing business, with Joseph Mort as an assistant in the Manufactory,” and “William Pearce who has been employed by me in preparing Machines for the use of the Society.”32

Through much of 1791, interested parties—mostly landowners—submitted suggestions for potential sites for the factory complex along a number of New Jersey’s rivers and creeks. In August 1791, Hamilton dispatched Hall and Mort to review the various sites. In his letter reports, Hall described the advantages and disadvantages of each location, concluding that the Great Falls of the Passaic affords “one of the finest situations in the world.”33 The Passaic’s advantages, according to Hall, included plenty of water and good fall, adjoining level ground “not subject to inundation nor exposed to violent winds.”

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Abundant building material, both wood and stone, were also found to be readily available, and though located seven miles above navigable water at Acquackanunk, “navigation can, with care, be made complete all the way to the falls.”

Hall and Mort’s report precipitated a more in-depth review of potential sites in New Jersey by Thomas Marshall, whose technical understanding of the hydraulic requirements appeared to be more advanced:

The grand Object in this point is Water, and too much precaution and Circumspection in this particular is Impossible, especially upon the very Extensive scale at present Contemplated; for if there is not a regular and constant Supply of Water in the driest of Seasons Sufficient to work the Mill 23 hours pr Day, the Interest of the Subscribers will severely suffer. To prevent this, Sir, it will be Necessary to be Acquainted with the Source (if easily possible) of the River, the Situation of the Country through which it runs, the Number of other streams that empty themselves into it, and from whence or by what means they are supplied. From these and Similar Observations together with the best Information that can be obtained from those who have long known the River & its particularities, a Judgment may be form’d what Effect a Dry or Wet Season has on it; that is, Sir, wether in a drought there will be a Sufficiency of Water to Supply the Works, and when heavy or continued rains happen, what Effects are to be Apprehended either from its Overflowing, or the Accumulated Impetuosity of its Current, which if not known and guarded against may prove totally destructive to the Buildings. Next fixing on a place where the Natural Current, (within a reasonable distance) is not impeded by Mills, Bridges, Projections or Eddies: the Speed of the Water must be taken (by which the Interior heavy Wheels are regulated) together with the Quantity of Water it is capable of delivering in a given time: the Fall must likewise be measured.

Marshall was dispatched on his tour of the same potential sites in September 1791, reporting his findings in letters to Tench Coxe. Marshall noted that he made a special effort “to divest myself of every Prejudice or Attachment Whatsoever to any particular Place,” so that he could make a fair assessment. He quickly concluded that the Delaware River at Trenton, the Assanpink, Mill Stone, and Stoney Brook did not meet his criteria. He found a location on “Second River” (Watsessing River) near Newark to be the most favorable.
At the particular desire of Col. Duer & I yesterday visited the great falls of the Passaic, accompanied by a Mohawks Man of this Town. I was requested not to make enquiries on the spot, for fear of my design being discovered, which being known Col. Duer thought would affect the price of land. I am fearful that it will be found impossible to take the necessary steps however cautious the generals may be, without their design being discovered - Col. Duer recommended a Mr. Allen for a companion was attired with some particular circumstances, this Gentleman is totally unacquainted with English, and I ignorant of French, and George and Conversation for 32 Miles was very interesting to the Society, on our arrival at the falls I concluded now it would have conducted me to the place desired for the dams but after a bewildered ramble in the woods, I found he had mistaken the site of the river, being indulged from Enquiries I found myself in an awkward situation as length the ground the falls, till I was diastatic of this appeared not to be the place desired for the Col. Duer had requested him to take me to the exact spot I used every means in my power to make him sensible of this and I thought he was proceeding to the place, where after pursuing the run of the Passaic for about four hundred yards above the falls Mr. Hall had not, at length, we were shut.
Just days after Marshall’s September 27 letter to Coxe, he wrote to Hamilton concerning his visit to “the great falls of Passaic,” apparently arranged at the request of William Duer. Writing from Newark, New Jersey, Marshall noted that “Monsieur Allou of this town,” who apparently spoke only French, accompanied him on the visit. Presumably, Monsieur Allou was trained in engineering, or at least aspired to it, and he apparently worked with William Duer to design a still-secret plan to bring water from the Great Falls via canal to a site called Vreeland’s Point at Acquackanonk (later Passaic). Duer wished to have Marshall assess the Great Falls location for his plan, accompanied by Allou as his guide, though it appears Monsieur Allou had never actually visited the Falls previously:

on our arrival at the Falls I concluded Monsr A wou’d have conducted me to the place destin’d for the Canal, but after a Bewilder’d ramble in the Woods, I found he had mistaken the side of the River, being Inhibited from Enquiries I found myself in an awkward Situation—at length We gaind the Falls, still I was dissatisfied as this appear’d not to be the place destin’d for the Cut—I understood that Col. Duer had requested him to take me to the Exact spot—I used every means in my power to make him sensible of this—and I thought he was proceeding to the place, when after pursuing the run of the Pasaic for about four hundred Yards above the falls, thro’ thick woods, at length we were stopt as we found them Impenetrable any further.

The exasperated Marshall declared, “I must confess Sir, I found myself much at a loss how to Account for the events of this Day.” Despite this, Marshall noted that from what little he had actually seen, he believed the canal scheme was possible, though navigation would be troublesome in the winter. Marshall was more reserved concerning Allou’s cost estimate of £2000. “I have some reasons to differ in opinion… as far as concerns Expense,” he wrote, suggesting to Hamilton, “the Expense attending the Canal and making the Pasaic Navigable for such a distance are Objects Sir that I respectfully recommend for your Consideration.” Still, he appeared to be impressed with the Great Falls location, concluding, “I am of the Opinion it will be found to be the best Situation, that is Sir, it will have more water, & the Land may be had cheaper here than at Second River.”


On December 9, 1791, the S.U.M. Board of Directors convened their first meeting, just one week after their election by the stockholders. The thirteen included William Duer, John Dewhurst, Benjamin Walker, Nicolas Low, Royal Flint, Elisha Boudinot, John Bayard, John Neilson, Archibald Mercer, Thomas Lowrey, George Lewis, Moore Furman, and Alexander McComb. The board elected William Duer as governor and Archibald Mercer as deputy governor. Among their first actions was to approve the contracts which Hamilton had arranged with Marshall, Hall, Mort, and Pearce. They allocated funds for acquiring foreign workers and machinery. Additionally, the board assigned a committee the task of locating the site for the manufactory.

In the meantime, as the newly elected Governor of the S.U.M. Duer decided to move forward with his canal plan, now known as the “Duer-Allon Plan,” even before approval by the Board of Directors. Stretching seven miles from its water source at the Great Falls of the Passaic to the head of navigation at Vreeland’s Point near Aquackanonk (Passaic) where he planned to build the S.U.M. manufactories. Duer likely saw the canal and factory development as an opportunity to engage in land speculation. Already his agent Samuel Ogden, an early S.U.M. subscriber, had purchased options for land along the canal route. However, Duer’s penchant for speculation, particularly in bank stocks, would soon be his downfall. In April of 1792, he lost everything in a speculative crash of his own making known as the Panic of 1792. Several other members of the S.U.M. board were also deeply involved in the speculation and suffered significant losses, but William Duer landed in debtor’s prison, where he died in 1799.

William Duer’s disgrace, along with the other S.U.M. directors most directly involved—Macomb, Dewhurst, and Flint—would affect the S.U.M. in several ways. First, and foremost, the loss of actual cash to the tune of about $67,000 which had been in the hands of the governor and directors at the time of their bankruptcies. Second, the company suffered a loss of subscriber—and public—faith in the S.U.M. There was also concern for the loss of time in selecting a site and building the waterworks and mill buildings. The remaining directors turned immediately to Alexander Hamilton for direction, “It is natural for us in the present situation of the business, to look up to you as the founder of the institution,” and Hamilton did not disappoint them. On April 16, 1792, Hamilton responded:

> The following appears to me to be the course proper to be pursued—

> To appoint the proper officers of the Institution and regulate their duties. I mean a Superintendent, an Accountant, and a Cashier; especially the first. Tis impossible that anything can proceed with vigour or efficiency till this is done.

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An infinite deal depends on the qualifications of the Superintendent. If Mr. Hubbard was recoverable, no pains should be spared to effect it—If this is to be despaired of, some efficient man of clear integrity, ought without delay to be sought in his place.

The Cashier ought also to be of a character and in a situation to inspire the most thorough confidence.

No time ought to be lost in determining upon the place and contracting for the land and commencing the buildings. Under present circumstances I would advise that the latter be begun upon a moderate scale yet so as to be capable of extension.

I would also advise that the Society confine themselves at first to the cotton branch. The printing business to commence as early as possible. A complication of objects will tend to weaken still further a confidence already too much impaired.

If a loan should be wanted I would if requested cooperate to endeavor to procure one on favourable terms.44

Hamilton concluded by urging that everything be done as quickly as possible to begin operations of the manufactory: “nothing scarcely can be so injurious to the affairs of the Society as a much longer suspension of operations.” He quickly followed up with his part by securing a loan of $5,000 from the Bank of New York, a much-needed influx of cash to move the S.U.M. forward.45

Alexander Hamilton, along with his father-in-law General Philip Schuyler, provided significant input toward the final decision for the siting of the manufactory:

I have had a full Conversation with General Schuyler on the Subject of the Several propositions which have been under consideration respecting location of the buildings for the Manufactory. My original impressions on this point, have been confirmed by Subsequent examination; And I now Entertain no doubt, that the most advisable course is to abandon for the present the Idea of a Canal And to erect the necessary buildings near the Great Falls.46

Hamilton additionally attended the July meeting of the S.U.M. directors, held in Abraham Godwin’s tavern near the Falls, at which Nicholas Low advised that the committee had

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44 As cited in Davis, Essays, No. I–III, 414–415. Nathaniel Hubbard was chosen for the Superintendent’s position by the directors, but Hubbard declined. S.U.M. Director Benjamin Walker was the first to serve as the treasurer or cashier, followed by Abijah Hammond. In August 1792, the directors hired James Griffiths of Newark, NJ, as clerk/accountant. (“James Griffiths, Newark, NJ, to the Deputy-Governor and directors of S.U.M.,” #148, “Documents in the Society for Establishing Useful Manufactures Collection,” Passaic Co. Historical Society, Paterson, NJ.


purchased 700 acres at Great Falls for £3,293, had the boundary surveyed, and also surveyed the boundary for the “Town of Paterson.”  

This exceedingly productive meeting also resulted in detailed resolutions to begin the construction of the manufactory, beginning with a call for “a number of Houses to be erected for the accommodation of the Workmen to be employed by the Society.” The board then recorded a resolution for construction of the waterworks, with specific instructions that the water “be conveyed across the said Gully upon the summit of a wall to be raised upon a level with the bed of the said River,” at a cost of $20,000. The next called for the construction of a cotton mill, “55 by 32 feet to be built of Stone and four stories high,” with “requisite machinery,” at $15,000. Next, a “Printing Shop and Calander House” with the “requisite machinery for the Printing business . . . to be built of Stone 78 by 31 feet three stories high,” for $12,000, and a “Carding and Roping House,” with “Machinery for Spinning, Weft, and Weaving . . . to be built of Stone 64 by 36 feet, two stories high,” at $6,000. Additionally, the directors ordered the construction of a sawmill and sheds to house the machinery.

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Resolved, that the water of the Passaic be conveyed across the adjacent gully passing near a point or place distinguished as No 1. upon the summit of a Wall to be erected for that purpose, and preserving the head thereof.

Resolved, that the said water be conveyed from a station or stake marked No. 1. to a place at or near another stake marked No. 2. from there to a place at or near another station or Cedar Street at the brink of the Rock marked No. 3. from across the adjacent gully to a place at or near another station marked No. 4. from thence to a place at or near another station marked No. 5. from thence to a place at or near another station marked No. 6. from thence to a place at or near another station marked No. 7. from thence to a place at or near another station marked No. 8. from thence to a place at or near another station marked No. 9. and from thence to a place at or near another station marked No. 10. And that it be conveyed across the said gully upon the summit of a Wall to be raised on a level with the bed of the said river.

Figure 23: July 4, 1792, S.U.M. Directors’ Minutes, Vol. 1, Part 1, p. 45. (Paterson Museum)
Resolved that a Cotton Mill of Eight Dams and that for the Building of the same and providing the requisite Machinery, the sum of fifteen Thousand Dollars be appropriated, which Cotton Mill shall be of the following description: Ht. 55 by 32 feet to be built of Stone and four Stories high, the two lower Stories ten feet in the clear, the third Story 9 feet in the clear, the fourth Story 8 feet under the Collar beams, a Filler under the whole, double floored with Irish boards, so as to break the joints of the boards to prevent dust.

Resolved that a Bleaching Shop and Calender House be erected and that for the building of the same and providing the requisite Machinery for the Bleaching business, the sum of Twelve Thousand Dollars be appropriated and that the description thereof be as follows: Ht. to be built of Stone 73 by 31 feet three Stories high, each Story to be seven feet in the clear, and a Filler under the whole.

Resolved that a卡特. and Refining House be erected and that for the Building of the same and providing Machinery for spinning West, and Waving, the sum of six Thousand Dollars be appropriated and that the description thereof be as follows: Ht. to be built of Stone 64 by 36 feet, two Stories high, and eight feet in the clear.

Figure 24: July 4, 1792, S.U.M. Directors’ Minutes, Vol. 1, Part 1, p. 46. (Paterson Museum)
Pierre L’Enfant and Peter Colt:
Building the S.U.M. and Paterson

The waterworks plan laid out by the directors and recorded in the July 4 meeting minutes was likely developed in consultation with Philip Schuyler and possibly also Thomas Marshall. Marshall had already made clear his understanding of hydraulic power in his communications with Hamilton. Philip Schuyler, notes historian Russell Fries, “was probably one of the most technically experienced men in America at the time,” having helped design a steam-powered system to pump water from his New Jersey mines and was deeply involved in the development of the Mohawk River canal system in New York.49 Schuyler knew the terrain after visiting the Falls on several occasions, and submitted a plan to the directors at their May meeting. His plan suggested that a “canal or raceway should be cut from above the ‘falls’ eastward; same to be at least 16 feet wide and 10 feet deep” and that a “dam should be erected on the rise above the ‘falls’ as soon as the water is low.” Schuyler additionally included “specifications for proposed improvement,” and “a second raceway so water could be used for power a second time,” and recommended immediate construction of a sawmill.50

Russell Fries described the challenges inherent in the planning for the Great Falls site in his Historic American Engineering Record (HAER) documentation of the “S.U.M. Power Canal System”:

In order to bring water from the river above the Falls to an area of less precipitous terrain two problems had to be dealt with. A channel from the bed of the river had to be cut through the rocks in order to draw water from the river in the first place. Secondly, there was a large gully behind the rocks bordering the river, which was an overflow channel of the river itself. This had to be crossed. If some means were found to carry the water over the gully then yet a third problem faced the developers in the form of the main ridge which blocked the course of the stream to the east. This had to be cut for the passage of the canal. Once beyond this point the problems became the relatively simpler ones of cutting and filling for a canal to take water to the mill sites.51

49  Fries, Great Falls SUM Power Canal System, 15. Fries also suggests that Christopher Colles, a New York civil engineer, may have been consulted, though he states there is no documentation that he was involved. On May 15, 1792, site committee member Archibald Mercer recommended “the appointment of John Hills of Philadelphia or Christopher Coler [Colles] of New York as engineers to complete geological surveys.” (#138, “Documents in the Society for Establishing Useful Manufactures Collection,” Passaic Co. Hist. Soc., Paterson, NJ) There is no record that either man was actually employed by the S.U.M.


51  Fries, Great Falls SUM Power Canal System, 19.
Neither Schuyler nor Marshall was a professional engineer and they did not appear to consider themselves capable of designing the details of a system intended to power multiple factory buildings. Despite this, the directors moved forward with the Schuyler plan.

On July 10, 1792, the directors published a request for contractor’s bids for construction of the waterworks, mill buildings, and worker housing in the National Gazette. The scope of work for the waterworks appeared to be based in part upon the plan proposed by Hamilton after consultation with Schuyler. It included five items:

1st. To cut a canal from the river Passaick, beginning at a point near a station, where stands a stake marked No. 1, and continuing thence to the brink of a precipice at or near a rock marked No. 3. *This canal* must be thirty feet wide, and must be sunk to a level with the surface of the water in the driest season.

2d. To erect flood-gates in the said canal near of the brink of the precipice,

3d. To erect a dam on the Passaick above the Great Falls, and below the place of the canal. The dam to be four feet above the level of the surface of the water at the driest season.

4th. To erect a dry wall across a gully adjacent to the above-mentioned precipice, in a direction from the said station No. 3, to another station being a stake marked No. 6, on or near the summit of a hill, extending from the one to the other; and to make a wooden trough upon the said wall sixteen feet wide by seven feet deep.

5th. To extend a trough of the same dimensions, from the said station No. 6, another station being a tree marked No. 7, with a dry wall on one side, the whole length thereof, of the thickness of six feet.52

Bids were due to be submitted by July 26. In the July 14 edition of the National Gazette, the paper also ran an article about the S.U.M.’s activities, including the news “that the celebrated architect, Monsr. L’Enfant, is expected there on Tuesday or Wednesday next for the purpose of laying out the new town, the form of which is contemplated to be nearly circular, encompassing a delightful plain, intended for a bleaching ground.”53

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Map prepared by the Historic American Engineering Record, HAER.

Source: Conceptual map based on historical documentation and 1" = 100'.

The Society for Establishing Useful Manufactures, 1791–1799

**PATERSON RACEWAYS, [1792-99]**

This sheet depicts the first raceway plan originally designed by Pierre Charles L’Enfant and modified by Peter Colt. Water from the Passaic was diverted into the raceway system by a wooden dam. Water fell into a reservoir and then passed through the raceway to the first S.U.M. mill. After leaving the mill, water flowed back into the Passaic through a drainage channel.

Source: Conceptual map based on historical documentation and 1" = 100' map. Map prepared by the Historic American Engineering Record, HAER.

Figure 25: HAER map, “Paterson Raceways, 1792–1799” (Library of Congress)
Major Pierre Charles L’Enfant was fresh from his employment as the designer of the new United States capital city of Washington in 1791. Although he was a visionary city planner, L’Enfant apparently chaffed at working under a higher authority. In the case of the Washington design, that authority was the federal commission appointed to oversee the city’s development. In February 1792, President George Washington dismissed L’Enfant from the project for insubordination.54 As a member of Washington’s cabinet, Hamilton would have been aware of the issues which had arisen relating to L’Enfant’s intransigence. Still, it appears that by July of 1792, Hamilton and the S.U.M. directors were prepared to engage L’Enfant to design a town plan for Paterson.55

When the local contractor’s bids returned for the construction projects at Paterson, none rose to the level of competence—or price—anticipated by the directors.56 Hamilton recommended Major L’Enfant as a “Civil engineer that is an Artist acquainted with Mechanics generally, particularly in reference to architecture, aqueducts, Canals &c &c including necessarily a knowledge of hydroulicks.”57 On August 1, 1792, the directors requested that L’Enfant review the waterworks plan and by mid-August, signed him to a one-year contract to superintend the construction project at a salary of $1,500. L’Enfant’s purview included the construction of the waterworks as well as the mill buildings and worker housing, and the execution of the town plan. The directors hired John N. Cumming, a stockholder in the S.U.M., as superintendent. They tasked Cumming with “procuring such workmen and materials... as the said M. L’Enfant shall require from time to time,” and “to pay the expences accruing thereon, keeping regular accounts of the same, and also to procure such materials for Machinery as shall be required in their respective branches by William Hall, Thomas Marshall and William Pearce.”58

L’Enfant began work immediately, presenting his design for the waterworks at the August 20 directors’ meeting. The text of the plan (see Appendix B, including a copy and transcription of L’Enfant’s plan transmitted in a letter, and as copied into the Directors’ Minutes) referred to a sketch (long lost) with points labeled A through Z. Noting that the previous options presented by the directors would, “in every respect be answerable,”

L’Enfant reported that his plan suggested only “changing the direction first thought of, and adopting a more safe method of execution.” He went on to describe his plan to draw water from farther up the river, and to replace the “dry wall across the gully,” which was intended to carry the water across in a wooden sluice, with a stone arched aqueduct wide enough to include a towpath and carriageway. Like the earlier S.U.M. plan, L’Enfant planned to gather water in a reservoir, though without his map it is unclear where that was to be located. Additionally, like Schuyler’s recommendation, L’Enfant proposed a second raceway to allow for maximum use of the waterpower generated.

By September 17, L’Enfant reported “rapide” progress on the S.U.M. construction project at Paterson (spelled as written):

the ground through which this is to be carried is already cleared of all timber and immense Rock removed from the way of operation so that I am in hope in a few weak to be enabled to make a begining of the fundation of the grand acqueduc—also to open the Rock across the ill and to make a begining Every way proportional to the number of hand as shall be collected the which daily Increase in number.

Several of the principals streets are cut through and about clearing. Stone is Extracting from the quarry and provision of Every sort making to Enable a begining of the principals and most necessary building for the manufacture and the Employed—for whom in waiting til the building are compleated I have ordered a number of barrack to be Erected suitable to the various purposes.

The work continued through the fall and into December, when winter weather ended the construction season.

On December 25, 1792, L’Enfant sent a lengthy report to the directors detailing his accomplishments over the previous four months, as well as the impediments to his progress (see Appendix B for a full transcription of this fourteen-page letter report). Work focused on removing rock to prepare the way for the aqueduct and canal, some of which was used to lay the foundation of the aqueduct. L’Enfant laid out a “work road” as well as a “grand street” to be part of the Paterson town plan. L’Enfant reported delays in planning for the town layout [spelled as written],

owing to the difficulties apposing [?] a purchase of those lands over which I wished to pass the streets : seeing how my sollicitud for in a manner rised the Expectation of the owner who in measure of the work progressed thought


themselves assured I most [must] give any price to them and subscribe to their condition for a division of lots, this determined me to abandone for awhile the Intention of Extanding the town down toward Totoway bridge… 62

L’Enfant had overseen the construction of two buildings within the town boundary, one a “barack” intended to temporarily house a grocer by the name of Mr. Adam, and the other a storehouse for company materials, with a “cellar being capable also of admitting of six weaving loom” in order to begin production as soon as possible. It appears that L’Enfant spent much of his time refining his plans for the town and the waterworks. In addition to his recommendation to expand the town boundaries, L’Enfant strongly suggested the directors immediately purchase the land above the Great Falls as far as Little Falls, noting:

some great Inconveniency arising in carring [carrying] one [on] the work of the canall, on the upper passaick, from the too great neareness of Henry Garrise property, and the advantage there will be to open a direct road to the little fall which most [must] pass across that land. cannot but made it the Interest of the Society to secure much of it as can possibly be obtained as however heigh may his demand be the Society is to consider, that what could have been purchased four mounth ago for ten pound now sel more than double and that the rise of property will be in proportion of a progress shall be made in advancing the work.63

L’Enfant estimated he had thus far spent “not above 12000 dollors,” after deducting “considerable of the sums Expended… the amount of what relate the factory.” This reference was to what he deemed to be wasteful work done under the supervision of Marshall, Pearce, and Hall.

L’Enfant’s December 25 report included four pages of discussion concerning his “judgment of the State of matter[s] resting with the three head manufactures to accomplish.” He noted Marshall, Pearce, and Hall’s inattention to the task of building the machines needed to begin the cotton manufactory. His particular ire fell on Thomas Hall, who he found untrustworthy and secretive. L’Enfant suggested that the “three branches” of manufacture and machine building should be put under his supervision, stating that “both the machines making and the canal business &c are necessary to be carried on in harmony to each other and it never will unless it is made more understood than it has hither to been that I have a right fully to Inquire and to see myself what is going on in Every shop work or laboratory.”64


Just days before L’Enfant’s report appeared before the directors, Marshall, Pearce, and Hall had submitted their year-end inventories, which seemed to belie some—though not all—of L’Enfant’s complaints. Still, the directors determined the efficacy of a superintendent to oversee the development of the manufactories and hired Peter Colt of Hartford, Connecticut in February 1793 to supervise the supervisors. The directors gave Colt the title “Supervisor of the Factory,” with an annual salary of $2,500 and instructions “to act for the Society in the same manner as if the Works were his own property.”

Peter Colt was a good fit for the job. The youngest of ten children, Colt graduated from Yale College in 1764. He began work as a store clerk, then as a teacher in Elizabeth, New Jersey. He settled in New Haven, Connecticut as a trade merchant and during the Revolution, became a provisioner in the Commissary Department of the Continental Army. Beginning in 1788, Colt became the treasurer for the Hartford Woolen Manufactory Company. Through these various capacities Colt became acquainted with a number of prominent men, including William Paterson, Elias and Elisha Boudinot, and Nehemiah Hubbard, Jr., any of whom may have influenced the S.U.M. directors in their decision to hire Peter Colt as superintendent of the factory.

Upon his arrival in Paterson in late February 1793, Colt wrote to Hamilton concerning several disturbing issues he found there. He described the core mechanics—Marshall, Pearce, and Hall—as dissatisfied with “their Situation & prospects.” Colt also complained that “Several Buildings which have been ordered for manufactures, are extremely wanted… but Majr. L’Enfant, to whom this part of the Business has been confided, not being here, nothing can be done.” “In short,” he concluded, “no arrangements can be made for putting things on a more durable & advantageous footing until the Majr. returns on the ground.”

L’Enfant apparently left Paterson after the December shutdown and did not return to Paterson until late March 1793. At a March 24 meeting, S.U.M. directors Nicholas Low and Elisha Boudinot informed L’Enfant and Colt that Low was planning to revive the

65 “Thomas Marshall to the Governor and Directors,” #214, “William Hall to S.U.M.,” #215 and #216, “William Pearce,” #217, “Documents in the Society for Establishing Useful Manufactures Collection,” Passaic Co. Historical Society, Paterson, NJ. Pearce also submitted a report to L’Enfant on December 24, here abstracted: “Progress in three different branches, viz: machine making, carding and spinning; weaving has been small since Pearce arrived in Paterson; men had been entirely employed in building dwellings and houses; machines made by Pearce are as follows: six single looms, one warping mill, one doubling and twisting mill, six seeds and gears for double looms, same for single looms; expects to complete machines ordered by Board of Directors in six months; inventory rendered, accounted for all machines completed and ready for work; hopes to report definite progress the next spring. (“William Pearce to Maj. L’Enfant,” #218, “Documents in the Society for Establishing Useful Manufactures Collection,” Passaic Co. Historical Society, Paterson, NJ)


Duer-Allon (Allou) plan under the guidance of Samuel Ogden. Low directed L’Enfant to continue his work on the aqueduct as it “would facilitate Saml Ogden plan.”69 Infuriated, L’Enfant immediately put a stop to all work on the water project and laid off the laborers. Writing to Hamilton to complain of the situation, L’Enfant bemoaned “that the best of my Schems may yet by chance to be left aside and that my whole labour is likely once more to be made a mean[s] to gratify the petit Interest of some men to the Expulsion of me and the Subversion of all my views.”70 At the April 16 meeting, the S.U.M. Board of Directors once again rejected the Duer-Allon (Allou) plan. However, to promote a more speedy completion of the waterworks, the directors resolved, “that Major L’Enfant be requested to confine his attention entirely to the completion of the Aquaduct for the use of the Works... and that the erection of the buildings and other Work devolve to Mr. Colt.”71 The directors’ resolve crumbled however in the face of L’Enfant’s response, according to Colt (spelled as written):

he [L’Enfant] wishing to have the compleating his plan of the Town, & stating the impropriety of putting that under any other direction it was agreed to. On further conversation it appeared he considered the Cotton Mills as a part of the Canal—at least necessarily connected with it—and shewed the greatest reluctance at having that part of the Business taken out of his Management. After much conversation the Board seemed to acquiese in his having the superintendance of the Cotton Mill...72

In return, L’Enfant “assured them he will give them the entire command of the water this Season.” He put his men to work, but once again disappeared without explanation. On June 8, 1793, the directors had had enough. Citing financial problems and the slow progress, they cancelled the planned aqueduct. Major Pierre L’Enfant removed himself and his sketch plans from Paterson, never to return.73


Though L’Enfant did suggest in his December 25, 1792 report that the S.U.M. should purchase 900 acres to include the land between the Falls and Vreelands Brook. However, his recommendation was to make the Passaic River navigable rather than to construct a canal.


72 “To Alexander Hamilton from Peter Colt, 7 May 1793,” Hamilton Papers, Founders Online: National Archives, accessed 4/11/2019, https://founders.archives.gov/documents/Hamilton/01-14-02-0282. Colt additionally expressed his fear that L’Enfant’s plan was too expensive and asked Hamilton to remind him of “the necessity of the greatest Oeconomy[sic] in executing his plans; & confining his views to those things which are essential instead of what is ornimental in forming his works.” Presumably, Colt was referring to the aqueduct as more ornamental than practical.

With Peter Colt left in charge of the building program, an air of American pragmatism took over from L’Enfant’s admirable, but perhaps unrealistic plans for both the aqueduct and the town of Paterson. Much of the waterworks plan reverted to ideas put forth by General Schuyler, though the cuts from the river and ravine, opened for L’Enfant’s plan, remained in use. Rather than build an aqueduct or the sluice-wall to cross the ravine, Colt built the wall to dam the ravine for the reservoir. The outlet from the ravine, presumably located at L’Enfant’s point D (labeled “L’Enfant’s Gap” or “La Fontaine” on the HAER map), connected to the raceway leading directly to the cotton mill. After additional delays owing to weather, workers, and Passaic River flooding, the waterworks were completed in late June 1794, a full year past the hoped-for completion in 1793.

Through that interim year of construction, under Peter Colt’s supervision, spinning operations began in a frame building which became known as the “Bull Mill.” The moniker came from its source of power, oxen rather than water, according to 1880s Paterson historian Levi Trumbull. The mill produced cotton yarn until the water-powered cotton mill was ready for production in June 1794.

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75 Fries, *Great Falls SUM Power Canal System*, 44–45.

Workmen of the S.U.M. Construction Phase

Pierre L’Enfant’s visionary plan for Paterson and its waterworks failed, according to Russell Fries, because “the cost of skilled labor was significantly higher in America than in France, and L’Enfant simply assumed that the same number of cheap, skilled stonemasons would somehow be available to accomplish his task.”77 In mid-October 1792, the National Gazette reported the S.U.M. had “three hundred laborers . . . at work, opening ‘a mountain of free stone’ near the building sites.”78 What must have been a remarkable outlay of cash for labor doomed L’Enfant’s plan. When L’Enfant withdrew from the project, he had already spent more than the $20,000 allotted to him, with very little progress to show for it.79 On June 13, 1793, just five days after taking over the project, Peter Colt “discharged all laborers employed under Major L’Enfant.”80

Who were the laborers who worked on the S.U.M. construction project? Unfortunately very little is known about these men (and women?), as there appear to be no extant company payroll records. Records from the Potowmack Navigation Company, a contemporary Virginia/Maryland corporation dedicated to opening navigation along the Potomac River, document that company’s employment of mostly indentured and enslaved workers.81 Alexander Hamilton was strongly opposed to slavery and is unlikely to have allowed the S.U.M. to engage enslaved laborers. Thus, the S.U.M. does not appear to have followed this route to procure their construction workforce. In 1792, John N. Cumming was in charge of hiring and paying the workers to build the waterworks and buildings for the S.U.M. Though Cumming’s records have thus far not been located, S.U.M. directors’ meeting minutes and numerous reports and letters indicate that the S.U.M. hired free men to do the construction work. Most of the men appear to have been local to New Jersey, skilled in the construction trades, many of whom brought with them additional laborers.

In 1792, Avery King, a mason by trade from “Second River,” sought work with the S.U.M. and noted that he could “bring five or six men to help.”82 As the 1793 construction season approached, the S.U.M. began receiving new letters of inquiry from local men.

77 Fries, Great Falls SUM Power Canal System, 44.
seeking work, including Abraham and Jehiel Day, both carpenters from Tuckasunny Plaine, Mendham Township in Morris County. The Days, who also hoped to purchase house lots in Paterson, claimed they could bring fifteen to twenty men with them “to do rough work.”83 In March 1793, Christian Howell, a mason from Princeton, also asked for work and a lot in Paterson, with the promise to “bring laborers with him.”84 William Reed, a carpenter from Monmouth County, “near Cranberry,” wrote that he wanted “a lot to settle on and employment.”85 Other applicants included Nathaniel Brooks, a carpenter from Haverstraw; Abraham Polhemus, “a carpenter and shoemaker of Snedickers Pond”; Abraham Forshea, a carpenter from Saddle River; and three men from Orange County—Abraham A. Blauvelt (quarryman), John Frederick Hartwick, and [?] Taylor—all of them seeking employment and to lease lots in the town of Paterson.86

The prospect of housing in Paterson was clearly a significant draw for potential workers, though the S.U.M. actually constructed only a few of the planned fifty houses (initially designated for the “mechanics”). With the loss of L’Enfant’s town plan in June 1793, Peter Colt laid out a plan for streets and lots in November 1793. Colt’s plan, which largely followed a traditional grid pattern, included quarter-acre lots which were made available for sale or lease to S.U.M. employees, as well as to housing speculators and to people interested in establishing town businesses.87

In his final push to complete construction, Colt placed an advertisement on March 20, 1794, for “Forty good Laborers… to compleat the Canal and Water-Courses for the Cotton Mill at Paterson.” He offered “generous wages… paid regularly every week.”88 Construction of the cotton mill, known as “Marshall’s Mill,” was completed on May 1, 1794, and by the end of June, the raceway too was complete and operational (see Figure 25).

S.U.M. Manufacturing and Factory Workers

In June 1794, water-powered manufacturing in Paterson was officially underway. It opened to great fanfare, according to a July 2 article in the Connecticut Journal:

We have the pleasure to announce to the public that on Saturday last, June 14, the large mill for spinning cotton by water-power was put in operation at Paterson, to the great satisfaction of all those who wish well to the manufactures of this country; and, from the specimens given on that day, there is no doubt but the expectations of the public will be fully answered. The dam and canal are completed, and there is water sufficient for all kinds of mills, and great conveniences for placing them. The mill was opened with great parade; a considerable company was collected from all parts, who went in procession to the mill, and a ball was given to the factory; and the expectations of the public were not only gratified, but greatly raised, in contemplating the future importance of their rising fabric.89

The S.U.M. acquired thousands of pounds of raw cotton (called seed cotton) and ginned cotton from Mississippi (through New York agents) for delivery in April and May 1794.90 William Hall’s printing and dying section failed when he absconded, along with William Pearce, to Wilmington, Delaware, in the early fall of 1793, taking with him much of the equipment paid for by the S.U.M.91 However, by November 1793, Colt signed an agreement with John Eddy, “late of Ireland,” to direct the bleaching and dying business.92 Beginning in March 1795, that business was under the direction of M. Tesserandot, who was employed under a three-year contract with the S.U.M.93 The printing operation was contracted to Edward Harper & Co. in 1794, and in 1795 to H.W. Harper & Colt.94 In April 1794, after William Pearce’s departure, John Richardson, a recent immigrant from Scotland, contracted to rent space for weaving with up to ten looms.95

This, of course, was not the original plan for the S.U.M. according to the Prospectus, which included a wide variety of manufactures, owned and managed by the

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90 “Van Bibber and Chambers, New York, N.Y., to George Sutton and Joseph Hardy,” #378, “Documents in the Society for Establishing Useful Manufactures Collection,” Passaic Co. Historical Society, Paterson, NJ. Despite Hamilton’s abhorrence of slavery, the very cotton used by the S.U.M. factory was grown in the southern US states using enslaved African laborers and the future success of American cotton cloth manufacturing was intimately tied to the American institution of enslaved labor.
corporation. Interestingly, Thomas Marshall first advised against this plan in 1791, writing to Alexander Hamilton:

I had at first with you the idea that an Establishment comprehending a dozen different objects well chosen, conducted by an able direction, enlightened and honest managers and skilful workmen might have the greatest Success, and I think so still; but would not the union of so many qualities, on which the success entirely depends, be an absolute miracle?… I repeat it, Sir, unless God should send us saints for workmen and angels to conduct them, there is the greatest reason to fear for the success of the plan.  

Marshall recommended choosing “three or four of the principle branches… connected together that the Details may be more easy to follow,” suggesting spinning, weaving, and dyeing cotton or wool as a logical combination. In fact, it appears that Hamilton took Marshall’s advice to heart as the mechanics hired and the machinery constructed through 1792 and 1793 all focused on those manufactures.

In January 1795, Colt reported on the state of the mill, which was then producing cotton thread or yarn, “the foundation of every cotton cloth fabricating establishment.” He described the machines, including “ten carding engines and two roving and four drawing frames in one room”; in the “millroom” he noted “three 144 spindle mule-jennies” expected to produce “two to seven twists per day,” and “ten water spinning frames working” with two more on order. Additionally, Colt wrote that “double twisted yarns” were then “in demand” and that Marshall had ordered a machine to accommodate that demand. In the weaving department, Colt was negotiating for the purchase of “looms and gears” as well as cloth from Marshall, who apparently had been weaving cotton fabrics on the side with his partner William Monk during the S.U.M. construction phase.

Records of the skilled mechanics and mill workers employed by the S.U.M. during its early operations are found in the S.U.M. minutes and letters, particularly the primary mechanics—George Parkinson (English), Thomas Marshall (Irish), William Hall (English), and Joseph Mort (?)—who were hired at the start of the S.U.M.’s preparations. William Hall intended to hire workmen for the printing and dyeing work (fifteen men in total) directly from Europe, though this apparently never happened. William Pearce also employed a number of workers in the “weaving department” as early as 1792; however, it is not clear from where the men were recruited.  

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96 As cited in Davis, Essays, No. I–III, 482–483. Davis notes that the letter is undated but probably is August 1791.


“artists and manufacturers” from Scotland had “engaged with the directors of the national manufactory [sic] at the town of Paterson.”

In his thorough 1917 study of the S.U.M., Harvard economics professor Joseph Stancliff Davis noted that many of the European workers came to the United States and the S.U.M. on their own:

In the main, however, the Society seems to have depended upon the normal influx of Europeans, particularly Englishmen, who were leaving home voluntarily on account of changing industrial conditions, stimulated only by items or advertisements in American newspapers and such documents as Hamilton’s Report on Manufactures.

Davis additionally suggested that some S.U.M. factory employees were American-born. Indeed, Thomas Marshall noted in his 1795 loom and fabric sale to the S.U.M. that the “superfine calico designed for [Martha] Washington,” was “woven by John Vreeland,” who was a descendant of one of the area’s original Dutch settlers. William Bagnall, writing in 1893, reported the S.U.M. recruited employees “in the New York Workhouse.” Women do not appear in these earliest records of the S.U.M. factory workforce; however, that does not mean they were not there. In fact, local Paterson historian and John Jay College professor Glenn Corbett recently discovered records of the 1797 “Mill Pay List.” The list covered the months of May through October 1797 and ranged from sixteen people employed in May to thirty-five in October. Just over a third of those employed were women and a number were locals, including Cornelius Van Winkle and Henry & Susan Godwin. The S.U.M. did employ children, at least within the apprentice framework. Estimates are given that by 1794, the S.U.M. employed as many as 125 people, while the population of the town of Paterson approached 500 men, women, and children.

100 As cited in Davis, Essays, No. I–III, 488.
Though the future of Paterson and the S.U.M. in 1794 looked brighter, it was far from the *NJ Journal* prediction of 1792, which forecast, “twenty thousand persons will be employed in the manufactory at the town of Paterson.” In fact, by the end of 1795, it was becoming very clear that the Paterson manufactories were failing and the S.U.M.’s financial footing was collapsing. In March 1796, the directors voted to discontinue all manufacturing and place the cotton mill up for rent. The next month, Superintendent Colt reported that he had discharged the factory workers “except Thomas Marshall and one laborer,” retained “the glazer, one man and two apprentices” from among the printers, and Tessierandot, who continued at the cotton bleaching business. The directors finally passed a resolution to hold a stockholders meeting in October to vote on the dissolution of the corporation, though the proposal failed to pass in 1796. At the March 1797 meeting, the newly elected Board of Directors appointed David Godwin as agent to oversee the now-largely dormant S.U.M. property.

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Conclusion

Numerous factors have been put forward as contributing to the initial failure of the S.U.M. manufactories—the overly optimistic subscription plan, the Panic of 1792, over-spending in the initial capital outlay, dishonest European mechanics, the high cost of labor in the United States (compared to Europe), and the seemingly insurmountable competition of European products. Davis summarized the failure as largely owing to a lack of firm commitment to manufacturing in the United States. Historian William Bagnall, writing in 1893, posited that the growth of American shipping, “a much surer and more profitable investment . . . than could then be hoped for from manufactures, in their undeveloped state,” drew money away from the S.U.M. The subscribers to the corporation who failed to pay their full subscriptions or entirely jumped the ship during the 1792 Panic ultimately caused the scheme to be underfunded.

Davis and others, including contemporary British traveler Henry Wansey, believed the skilled workmen recruited from Europe were unreliable on the whole. Traveling through the United States in 1794, Wansey wrote about the S.U.M., observing, “the roguery of the different managers, placed at different times at the head of it, chiefly men of ruined fortunes from England, who undertook it merely to aggrandize themselves.”111 The vast undeveloped land on the American frontier likewise distracted the European immigrants, according to Wansey: “The English workmen are dissatisfied, and ready to leave the factory as soon as they have saved up a few pounds, in order to become landholders up the country, and arrive at independence.”112 Thus, the S.U.M. experienced a tremendous turnover of skilled mechanics and laborers over the company’s brief tenure of manufacturing.

Though the initial S.U.M. experiment appeared to be over by 1796, the physical and corporate apparatus remained intact, perhaps waiting for a more opportune moment to ride the inevitable industrial wave to come. The business plan would be altered—it already had been altered—but the eventual outcome would essentially fulfill the vision of Alexander Hamilton.

111 Bagnall, The Textile Industries, 182. Pierre L’Enfant also alluded to this in his December 25, 1792, report to the directors.

CHAPTER 4

S.U.M. AFTER 1800,
A PLATFORM FOR TECHNOLOGICAL INNOVATIONS

Every generation takes up the march of improvement, where its predecessors had stopped, and every generation leaves to its successors an increased circle of advantages and acquisitions.

Jacob Bigelow

Elements of Technology, 1829

Introduction

Like a phoenix rising from the ashes, the dormant S.U.M. awakened as the nineteenth century arrived. On February 15, 1802, a meeting of the directors indicated a renewed determination to save the corporation. S.U.M. Governor John N. Cumming (also known as “General Cumming”) and Director Samuel Baldwin formed the committee assigned to oversee the sale or lease of Society property, “as they shall judge for the advantage of the Society.” The directors had received “several applications… for the renting of part of the cotton mill and its machinery,” and they hoped to lease out the printing shop, bleaching field, sawmill, and grist mill as well.1 It was a glimmer of hope after a gloomy five years of inactivity.

Despite the disappointment of the S.U.M. experiment in the previous decade, the spirit of American manufactures was alive and well among individual entrepreneurs who saw the waterpower system at Paterson as an opportunity, rather than a white elephant. At Paterson, a company could establish a manufactory without the large start-up costs of acquiring land and water rights, and building a dam and raceway. It was a revised business plan for the S.U.M., as landlord and power-supply company, rather than direct manufacturer, and it would lead to extensive new raceway construction over the next four decades. By the 1840s, Paterson was a shining example of American innovation and manufacturing.

If Alexander Hamilton had lived to see it, he would have been proud of the seed he had planted.²

By 1860, the United States trailed only Great Britain and France in manufacturing output. The transformation of Paterson into a thriving industrial city by the middle of the nineteenth century mirrored the growth of manufacturing and urbanization elsewhere in the United States. European immigration into the manufacturing cities of the northeastern states and the enslaved labor of African Americans on the cotton plantations of the South fueled much of that growth. Technological developments in stationary steam engines improved transportation (river shipping and railroads) and provided a power source for factories located outside of the traditional waterpower-rich New England and Mid-Atlantic states. By the end of the century, manufacturers in the smaller inland cities like Paterson were competing with those more strategically positioned in port cities like Baltimore and western railroad hub cities like Chicago.

The US Economy at the Turn of the Nineteenth Century

By the time Thomas Jefferson took office as President of the United States in 1801, his political support for American manufacturing had shifted. The Federalist policies of Alexander Hamilton nurtured and encouraged manufacturing. However, Federalist efforts also sought to improve trade relations with England. In 1794, US Supreme Court Chief Justice John Jay negotiated the so-called “Jay Treaty,” an attempt to resolve the trade imbalance, among other ongoing issues between the United State and Britain. However, the United States had little to bargain with and a strong desire to maintain peace with Great Britain. The resulting treaty only minimally advanced American trade prospects and proved wildly unpopular with the public, particularly among mechanics and supporters of manufactures.³ Even Hamilton’s former deputy Tench Coxe turned against the party in favor of Jefferson’s Democratic-Republicans. Though Jefferson had always supported domestic (home) manufactures, his political base and the events leading up to the War of 1812 made the Democratic-Republican Party the face of the growing American industrial manufacturing economy.⁴

In February 1802, Tench Coxe sent a copy of his “Reflections on Cotton” to President Thomas Jefferson, which began: “Every fact and reflexion upon the subject of

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² Alexander Hamilton was killed in a duel with Aaron Burr in 1804.
cotton, enhances its importance to our Country.” He purpose was to highlight the potential for cotton in the American economy and to encourage “cultivation, exportation & manufactures” of cotton. Coxe’s words did not fall on deaf ears. Jefferson championed the agrarian “democracy” (excluding, however, the enslaved African laborers), but was also fascinated with “mechanical devices that cut labor.”

Jefferson’s intent was to improve household or small shop manufactures, not to encourage an American version of “the ‘dark satanic’ English cotton mills.” However, by the first decade of the nineteenth century, the pace of the growing American economy was quickly moving beyond piecework production and events in Europe would bring Jefferson to the defense of industrial manufacturing.

Henry Wansey, a British clothier touring the United States in 1794, observed that American commerce was on the rise, “in consequence of the war in Europe, the carrying trade on the ocean was being transferred from the vessels of the European maritime nations to those of the United States.” Indeed, while in 1789 US vessels shipped 123,893 tons of product, by 1798, the total grew to nearly 500,000 tons, and by 1807, to over 800,000 tons of product. Soon the Napoleonic Wars, particularly the conflict between France and England, adversely affected American shipping and agriculture, but provided a boost for American manufacturing.

In the year 1803, the tenuous peace which existed between England and France since the 1801 Treaty of Amiens broke down. Although the United States declared a policy of neutrality, both the British and the French commandeered American merchant vessels to prevent the transport of goods to the other. The British went one step further by impressing American seamen to service on British warships. In 1806, at President Thomas Jefferson’s urging, Congress passed the Non-Importation Act, banning the import of products from Great Britain in an attempt to end the practice, but many considered it to be too weak to be effective. The Embargo Act of 1807 placed an embargo on American shipping to British and French ports in an effort to force both governments into recognizing US neutrality. The embargo at first received support from American merchants and farmers, but they soon realized it was more harmful to US trade than it was to either the British or

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7 Hawke, Nuts and Bolts, 44.


9 Bagnall, The Textile Industries, 183. Wansey is referring to the war resulting from the 1789 French Revolution, pitting France against England and a number of European countries.

10 Benjamin Olney Hough, Ocean Traffic and Trade, Volume 16 (Chicago: LaSalle Extension University, 1916), 331.
From the port of Baltimore, flour exports decreased by half between 1807 and 1808 and cotton exports fell from over 143,000 bags to just under 25,500 bags.12

The embargo had a more positive effect on American manufacturing. Reminiscent of the 1780s movement to encourage manufactures, the first decade of the nineteenth century brought renewed calls for the development of domestic industries to end the United States’ dependence on foreign imports. In the port city of Philadelphia, Tench Coxe initiated a revival of the Pennsylvania Society for the Encouragement of Manufactures in 1803. New associations also formed, including the Domestic Society and Philadelphia Premium Society, to operate merchant warehouses serving as intermediaries for the sale of American-made products to American markets. Movement founders knew there was a need for change—changes in capital investments toward local manufacturers, developing local or regional marketing networks for American raw materials, and changing the long-held American preference for imported products (particularly clothing). In Baltimore, members of the Maryland Association for the Encouragement of Domestic Manufactures made a public pledge to wear only “American-made” clothing, with the caveat, “as far as practicable.”13 The movement would prove to be advantageous for Paterson and the S.U.M. as well (see below).

The unpopular embargo ended in 1809 when Thomas Jefferson left office. Despite James Madison’s follow-up attempts at economic sanctions, British and French warships continued to harass American merchant ships. The British were most aggressive, forcing sailors onto their warships and confiscating cargoes. Merchants, farmers, and millers were vocal in their opposition to government policies intended to force England and France to recognize American sovereignty. They wanted a declaration of war on Great Britain over the issue of impressment of sailors and taking of cargo. President Madison called for a declaration of war on June 1, 1812, and Congress responded with a positive vote. The disruptions of the war lasted until February 1815, when the US Senate ratified the Treaty of Ghent, ending the conflict.

Many of the factories established during this period of upheaval did not survive after the cessation of hostilities with England in 1815. Those that did continue, particularly textiles, iron, steel, and firearms, formed the core of industrialization in the United States through the nineteenth century. Building on the foundation of corporations like the


S.U.M., a growing majority of manufactures, particularly in the New York and Boston areas, were chartered corporations.\footnote{Peskin, \textit{Manufacturing Revolution}, 170. This paragraph and the preceding three paragraphs are largely taken from Paula S. Reed \& Associates, “Union Dam and Mill Race,” Historic Context, Section 8, page 1.}

\section*{S.U.M. Infrastructure Makes Paterson a Destination for Industrial Growth}

Beginning about 1800, under the direction of then-S.U.M. governor Elisha Boudinot the first project undertaken by the rejuvenated S.U.M. was to extend the existing raceway to increase the number of mill sites available for lease or sale. Both Philip Schuyler and Pierre L’Enfant proposed a future extended system for that purpose, as did Peter Colt in 1794. Colt’s proposal was a practical extension of the existing raceway, here described by Russell Fries (1975):

\begin{quote}
  going north from the present location of the first mill at Passaic and Mill Streets parallel with Mill Street along the side of the hill towards the river. He also planned to use the tail race from the cotton mill to drive another set of mills along the brow of the hill above the river itself (corresponding to the present lower canal along Van Houten Street).\footnote{Fries, “SUM Power Canal System,” 49–50, citing “Peter Colt to Nicholas Low,” July 13, 1794, Peter Colt MSS. Fries notes that Colt may have gleaned elements of the plan from L’Enfant and the millwright, Luke Usher. (Fries, 51) See also Hunter Research, \textit{ATP CR Study, Vol. I, Factories Below the Falls}, 2.33–2.34.}
\end{quote}

In fact, as constructed between 1800 and 1807, the tailrace ran parallel to the original raceway and its extended section, while Colt’s proposed “tail race from the cotton mill to drive another set of mills” became the Lower Raceway paralleling the river.\footnote{James Lee, “Paterson Raceways: Research and Documentation Report,” Historic Structures Research \& Documentation Branch, Historic Architecture, Conservation and Engineering Center, Lowell, Massachusetts, 2013, 9.} The initial raceway extension bore fruit in 1801 with the construction of the “Yellow Mill,” a paper mill operated by Charles Kinsey and Israel Crane.\footnote{Hunter Research, \textit{ATP CR Study, Vol. I, Factories Below the Falls}, 2.33; see also Davis, Essays, No. I–III, 505. A remnant of the “Yellow Mill” is visible in the walls of the Essex Mill Apartment Complex located on Mill Street just inside of the Park boundary.}

During this period, the S.U.M. cotton mill was occupied by two manufacturing concerns: John Parke, who produced candlewicks, and John Clark, who built cotton machinery “of the Arkwright system of carding and spinning.”\footnote{Bagnall, \textit{The Textile Industries}, 188. The recently discovered “Mill Pay List” from 1797, located by local Paterson historian Glenn Corbett, indicates that Parke may have begun his operations as early as 1797, although Parke was not listed as an employee. The list also included John Clarke [sic], the highest paid employee, from July through October.} Clark came from
Providence, Rhode Island, but chose to settle in Paterson. He reportedly supplied machines for “the second cotton mill in Beverly, Mass.,” and for James Beaumont, who established a mill in Canton, Ohio, in 1801. In 1807, the S.U.M. cotton mill burned to the ground, displacing both the Parke and Clark manufactories. John Clark built a new shop known as “Little Beaver Mill” (no longer extant), located on a riverside mill seat leased from the S.U.M., where he remained until 1816. John Parke determined to build his own mill along the recently completed new raceway, here described by New Jersey historian William Nelson (1882):

Within six months after the destruction of this mill, Parke had begun the erection of another on what was then called Boudinot Street, but is now Van Houten Street, nearly opposite Cross Street. He prudently put up only a small frame building, one story high probably, pretty well back towards the river, so as to get the full head of water from the new raceway, which was then but recently constructed… Times prospered with Mr. Parke, and he soon was able to enlarge his modest little mill. After a while, probably during the winter of 1810–11, he built a brick and stone mill…

According to Nelson, John Parke’s cotton mill prospered through the embargo and ensuing war with England, but with the cessation of hostilities in 1815, the domestic cotton market collapsed and “he went down with every other manufacturer in Paterson.” In 1810, however, Nelson reported that Paterson was humming with activity, citing the Essex County manufacturing statistics for that year:

The production of cotton, linen, and woolen cloth for the year amounted to 201,836 yards in families, and 456,250 yards of cotton goods, such as cassimeres, stripes, checks, shirtings, corduroys, and fancy goods. There were 585 looms in operation,—102 for weaving cotton goods, of which 70 were driven by water-power.

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21 Clayton and Nelson, *History of Bergen and Passaic*, 411. Parke’s second, brick and stone mill was later expanded and eventually became “one of the principle structures” of the Phoenix Silk Mill complex.


This sheet shows the expansion of the raceway system which began in 1800, with the extension of the raceway along the side of the hill beyond the site of the first mill to supply the Essex Mill with water. In 1807 S.U.M. added a raceway along Boudinot (now Van Houten) Street and the tailrace along Mill Street, eliminating the old drainage ditch.

Source: Conceptual map based on historical documentation and 1” = 100' map. Map prepared by the Historic American Engineering Record, HAER.

Figure 27: HAER map, “Paterson Raceways 1800–1827” (Library of Congress)
The county record also enumerated, “3146 spindles in motion in cotton manufactories” and “9140 spindles prepared to go into operation, and 500 for spinning flax,” all of which historian William Nelson considered “very likely an exaggeration.” Still, the numbers indicated the relatively impressive state of manufacturing in Paterson in 1810. Additionally, several new mills were established over the next five years, here listed from Nelson:

Capt. Richard Ward—cotton mill established 1811 on “Boudinot Street, just west of Mr. Parke”; this became John Nightingale’s blechery about 1830.

Aaron and Robert King—cotton mill, about 1811, on Congress (Market) Street; about 1821 they moved to the former Park mill, “where their establishment was known as the ‘Phoenix Cotton-Mill’.”

Isaac Classen—“a large mill on the middle race, about opposite Passaic Street,” built 1812–1813 and called the Franklin or Red Mill. (cotton mill?)

Daniel Holsman—the Home Mill on Boudinot Street (cotton mill?) “where J.C. Todd & Simonton’s machine works now are.”
S.U.M. after 1800, a Platform for Technological Innovations

Caleb Munson Godwin—cotton spinning mill known as Munson Godwin’s Mill, built “about 1813–14, possibly earlier,” “large stone mill on the middle race, on Congress Street.” (later part of the Danforth Locomotive Works)

Harmony Mill—built on Boudinot Street before 1816, owner unknown, leased in 1816 by Warren Haight, a carpet manufacturer.

Industry Mill—“first mill on Boudinot Street from Prospect,” built before 1816, owner unknown; purchased cotton mill about 1816 by Robert Morrell.

Henry Morris—the Hamilton Mill, on Mill Street, a cotton mill “built about 1814... said to have been the only Paterson manufacturer who did not fail after the war of 1812.”24

Oddly, Nelson did not list the Samuel Colt & Company rolling mill and nail factory, built in 1812 near the spillway at the end of the middle race.25 Colt & Company was one of four incorporated manufacturers in Paterson in the early decades of the nineteenth century. The others, Beaver Woolen Factory, Essex County Manufacturing Company, and Passaic Manufacturing Company, operated in Paterson by January 1815. Statistics given for Paterson in 1814 listed “eleven cotton mills... one card and wire factory, one rolling mill, and one saw mill; and a population of about 1500.”26

The S.U.M. raceway improvements between 1801 and 1807 were clearly a boon to the business of land sales and waterpower leases. However, the 1807 cotton mill fire destroyed the S.U.M.’s most valuable asset, according to state reports. In 1809, the value of S.U.M. shares remained depressed at just “three dollars per share,” though expected to rise with the value of the newly available mill seats.27 In a move which would prove to be profitable for himself and for the S.U.M., Roswell L. Colt, eldest son of Peter Colt, began purchasing S.U.M. stock around this time, eventually acquiring a majority ownership in the corporation by 1814.28

24 Clayton and Nelson, History of Bergen and Passaic, 411–413.

25 Hunter Research, ATP CR Study, Vol. I, Factories Below the Falls, 2.34, 2.39. Hunter Research (page 2.40) discussion of the date of the painting: “A card affixed to the rear of the painting reads: “The Nail Factory at the foot of Broadway at the Pitch of the Race way Painted by Thomas Whitley – cir 1850 – Presented by Mrs. James H. Rogers.” Current thinking is that the painting shows John Colt’s rolling mill and nail factory, which formerly occupied the site of the Gun Mill at the “pitch” of the Middle Raceway. Assuming this location attribution is correct, since Thomas Whitley immigrated to the United States around 1835 and was based in Paterson from 1835 to 1839, and the mill of the Patent Arms Manufacturing Company was erected in 1836, the painting can be reasonably securely dated to 1835–36.”


27 Davis, Essays, No. I–III, 509 and 511, citing the 1804 Dodd and 1807 Bloomfield reports, and the 1809 Silas Whitehead report to the New Jersey legislature. The value of the cotton mill and its contents was given as over $17,000, while the fire insurance payout was just $6,500. The payout may have funded the lower raceway construction.

In June 1814, Roswell Colt was elected to the Board of Directors, along with his father Peter Colt, his cousin Samuel Colt, in-laws Robert and John Oliver, and his brother John Colt, who was also appointed the S.U.M. agent of canals, lands, and buildings in April 1814. Several local manufacturers also joined the board, including Robert Collett, Henry Morris, and others, who represented the minority stockholders of the company. The directors elected Roswell Colt as the Governor of the S.U.M.\textsuperscript{29}

For the next three decades, the S.U.M. operated essentially as a family business, tightly controlled by Roswell L. Colt. Not only did Colt’s father, brother, cousin, and in-laws serve the company in various capacities, but they were also invested in

\textsuperscript{29} Hunter Research, \textit{ATP CR Study, Vol. I, Factories Below the Falls}, 2.33 (citing S.U.M. Minutes, June 14, 1814); this author’s notes from the minutes include several new directors’ names not listed by Hunter Research, including Robert Johnston, and more importantly, Samuel Colt. Presumably this would have been the Samuel who was the cousin of Roswell and proprietor of the Samuel Colt & Co. Rolling Mill and Nail Factory (Hunter Research, \textit{ATP CR Study, Vol. I, Factories Below the Falls}, 2.39).
manufacturing enterprises in Paterson, the success of which helped propel Paterson and the S.U.M. toward stability. John Colt, while serving as the primary land agent for the S.U.M., also operated a nail factory with his cousin Samuel Colt, and several cotton mills. John Colt advanced the American duck sailcloth industry with his innovative cotton duck (instead of the traditional linen duck) and produced as much as fifty percent of United States-made cotton duck cloth.30 Another Colt cousin, also named Samuel Colt, revolutionized the gun-making industry with his patent revolver, first assembled 1837 in a new factory built on the site of the old Colt Rolling Mill and Nail Factory.31

Roswell Colt shared his father’s interest in the financial side of industry and is largely credited with transforming the S.U.M. into a profitable corporation. During his four decades at the head of the S.U.M. Roswell Colt oversaw the enlargement of the raceway system by which new mill seat and waterpower leases fueled a boom in cotton cloth and machine manufacturing. He opened the company to greater investment as he negotiated the exchange of stock held by the state of New Jersey for land in Paterson, and in the 1830s oversaw the company’s successful litigation against the Morris Canal and Banking Company.32 While Roswell Colt’s tenure as the governor and majority stockholder of the S.U.M. included a great deal of controversy over his private dealings, the company and the town of Paterson thrived under his leadership.33

As Roswell Colt assumed the leadership of the S.U.M. in October 1814, the directors voted “to recommence a Cotton Manufactory” as soon as possible. Colt, however, took the company in the opposite direction, setting aside the manufacturing clause in the S.U.M. charter to pursue the more profitable business of sale/lease of mill seats and providing waterpower. This change was used (unsuccessfully) as an argument in several court cases, claiming the Society had “violated its charter” in its shift away from direct manufacturing.34 The move, however, proved to be advantageous to the S.U.M., and by 1820, factories occupied nearly all the available mill lots.35 The growth in manufactures stimulated sales and leases of S.U.M.-owned Paterson town lots as well. Both created a much-needed steady revenue stream for the company.

31 Hunter Research, ATP CR Study, Vol. I, Factories Below the Falls, 2.55. This was not the same Samuel Colt who served on the S.U.M. board of directors. Samuel Colt, the gun maker, was a grandnephew of Peter Colt.
The expansion continued through the 1820s, growing to fifteen cotton factories by 1827, according to a census recorded by local Presbyterian minister Rev. Samuel Fisher. Fisher noted 24,354 spindles and 281 power looms running in Paterson factories, producing over two million pounds of yarn—some exported to New York and Philadelphia markets—and nearly four million yards of cotton cloth and duck (sailcloth). Following is Fisher’s list of Paterson’s fifteen cotton manufactories, their equipment, and number employed in 1827:

Rutgers Cotton Factory—John W. Berry & Co.—cotton cloth
2,500 spindles, 45 power looms, employed 20 men, 25 women, 47 children

Harmony Cotton Factory—Warren Haight—exported yarn/umbrella cloth
1,000 spindles, 8 power looms, employed 9 men, 7 women, 34 children

Union Cotton Factory—Clarke & Robinson—exported yarn
888 spindles, employed 2 men, 4 women, 22 children

Phenix [sic] Cotton Mills—Aaron & Robert King—exported yarn
1,510 spindles, employed 6 men, 24 women, 26 children

Phenix Manufacturing Co.—J. Travers—linen yarn for export and duck cloth
1,200 spindles, 52 power looms, 20 hand looms, employed 89 men, 81 women, 114 children

Passaic Cotton Factory—Adrian Van Houton—cotton yarn and cloth
1,632 spindles, 30 power looms, employed 12 men, 20 women, 33 children

Home Cotton Factory—Daniel Holsman—cotton yarn and cloth
2,016 spindles, 40 power looms, employed 21 men, 27 women, 49 children

Cotton & Duck Factory—John Colt—cotton/linen yard, cotton/linen duck
336 flax spindles, 444 cotton spindles, 32 power looms, 30 factory hand looms, 30 private hand looms, employed 12 men, 52 women, 29 children

Essex Cotton Factory—John Colt—cotton yarn for export and local
2,100 spindles, employed 8 men, 7 women, 55 children

Franklin Cotton Factory—Daniel Holsman—cotton yarn
2,800 spindles, employed 13 men, 21 women, 56 children

Hope Cotton Factory—Joseph Smith & Co.—cotton yarn export and cloth
2,904 spindles, 48 power looms, employed 12 men, 46 women, 41 children

Fayette Cotton Factory—John Parke—cotton yarn for export
780 spindles, employed 5 men, 10 women, 40 children

Cotton Factory—A. & R. Carrick—cotton yarn for export and cloth
3,000 spindles, 60 power looms, employed 15 men, 50 women, 60 children

Columbian Cotton Factory—C. H. Godwin—cotton yarn for export
1,224 spindles, employed 2 men, 5 women, 26 children

Cotton Factory—Godwin, Rogers & Co.—cotton yarn for export and some cloth
1,500 spindles, 2 power looms, employed 4 men, 11 women, 45 children

Godwin, Rogers & Co. operated a machine shop employing sixty-eight men and a foundry with thirteen men. Fisher additionally listed two other machine shops, one operated by Henry Post (ten men) and the other by Clough & Hall (six men), and John Colt’s Rolling Mill & Nail Factory, which employed twenty-five men and produced over 850,000 nails annually. Rogers—the same Thomas Rogers who later established the Rogers Locomotive Co.—reportedly designed the power loom for John Colt’s cotton duck factory. It was a first-of-its-kind power loom capable of weaving the difficult “doubled and twisted” yarn for cotton duck cloth. Colt’s cotton duck sailcloth was reportedly used on “all American vessels,” both US government and merchant marine.


38 “Census July 4th 1827,” Census of Paterson, NJ collection, Paterson Museum, Paterson, NJ. In his 1829 census, Fisher noted that the “Machine factories... where cotton machinery of different descriptions is made... is said by competent judges to be superior to any other manufactured in America.”


40 Clayton and Nelson, History of Bergen and Passaic, 413.
The S.U.M. profits accrued by the growth of Paterson manufacturing in the 1820s provided the capital needed to expand the waterworks again.\footnote{John Kean, in his 1845 lawsuit filed against Roswell Colt, stated “That large sums of money have been received by the said Colt, under some arrangement with D. S. Gregory and others, in reference to the lottery privilege granted by the charter,” claiming that Colt diverted most of that money to his own use in building the Roswell Mansion (George B. Halstead, \textit{Reports of Cases Determined in the Court of Chancery, Vol. I} (Elizabethtown: Printed by E. Sanderson, 1849), 368). Davis suggested that possibly some of the lottery money was actually used “to increase advantageously their investment in the town” (Davis, \textit{Essays, No. I–III}, 516).} Between 1827 and 1829, the S.U.M. constructed a third raceway, commonly known as the Upper Raceway. This raceway diverted the original eastward flow of water from the reservoir to a line flowing southward then turning back northward above and parallel to Spruce Street, here described by architectural conservator James Lee (2013):
The creation of the Upper Raceway “involved raising the level of the whole system that supplied water to the canals almost to the base of the river in order to gain a further head of twenty-two feet for the new mill-sites” (Fries 1973, 62). The new section made a sharp turn south below the reservoir, and directed the water toward the south end of Spruce Street. The Upper Raceway was cut into the hillside, and the fill was used to build an embankment between the Upper Raceway and Tailrace. There was a sluice with a control gate at the north end of the Upper Raceway, and weir and spillway at the south end. The mills along Spruce Street drew water from the Upper Raceway via flumes, and the waste water was expelled into the Upper Tailrace. Once the water made its way to the tailrace it flowed north toward the older section of the system, which became the Middle Raceway. Since Spruce Street sloped from north-south and the water needed to flow from south-north, the grade of the tailrace was also raised with fill.\(^{42}\)

Lee additionally identified a feeder canal, constructed in 1830 between the river and the reservoir. Lock gates allowed boats to move from the river to the reservoir and along the Upper Raceway. These improvements created a remarkable system of tiered raceways which allowed for a great deal of industrial activity in a relatively small area.

By 1832, Paterson’s manufacturing community included nineteen cotton mills (including Colt’s cotton duck mill), one linen duck mill, one wool (Satinet) mill, two button factories, one paper mill “nearly finished,” two bleaching companies, four “Turning Establishments,” and four millwright companies. There was also the new “Paul & Briggs” four-story building designed for their millwright works with additional room for 4,000 spindles, and four other machine factories—including the new Rogers, Ketchum & Grosvenor four-story building with additional room for 5,000 spindles. These shops and factories employed over 2,400 men, women, and children, close to doubling the number employed in 1827 (~1,500). Several of the larger cotton mills and machine shops employed from 100 to more than 200 hands and the largest mill [name unknown due to torn page, possibly Joseph Smith’s Hope Mill] listed 381 hands.\(^{43}\)

A map of Paterson drawn in 1840 showed large industrial buildings along all three of the S.U.M. raceways. The town plat extended to both sides of the Passaic with numerous streets laid out within the town boundary. Paterson became a separate township in 1831, carved from the ancient Acquackanonk Township, and in 1837, it was designated the county seat of Passaic County. The city was incorporated by state charter in 1851, officially severing its existence within the S.U.M. charter.\(^{44}\) The 1840 map showed the serpentine

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Morris Canal, completed between Phillipsburg and Jersey City by 1836, which wound its way just south of the S.U.M. reservoir, but connected to the reservoir by a short “raceway.” Much like the canal envisioned by William Duer and Monsieur Allou, the Morris Canal provided a valuable transportation option for the products of Paterson’s factories. However, it did not come without controversy.

The Morris Canal and Banking Company was incorporated by the state of New Jersey in 1824, “to unite the river Delaware, near Easton, with the tide waters of the Passaic.” Among the subscription commissioners named in the charter was David B. Ogden, son of Samuel Ogden who unsuccessfully lobbied the S.U.M. to build the Duer-Allon (Allou) canal system. The canal charter allowed for use of the water from Lake Hopatcung and Green Pond, but in 1829, the company devised a plan to use the waters of

Rockaway River, a tributary of the Passaic, as a section of the canal. In October 1830, the S.U.M. brought suit in New Jersey Chancery Court against the Morris Canal and Banking Company. They claimed that on four occasions in July through September, during the construction of the canal, the company had:

caused large quantities of water to be drawn out of the Rockaway—sometimes for the purpose of trying their inclined planes, and at other times for the purpose of puddling their canal—by means whereof great, sudden, and unusual depression and diminution of the quantity of water in the said Passaic river have been experienced at Paterson, and the manufactories there prevented from performing their usual operations, and some portion of the machinery has actually stopped for the want of water. . . . That the Society are entitled to the natural flow of the river, without liability to the dangers that may result from any interference on the part of the Company. The bill then prays that the Canal Company may be *injoined* [sic] from diverting in any wise any of the waters of the Passaic or its tributary streams, and that an account may be taken of the damages already sustained. 47

Part of Morris Canal and Banking Company’s defense was that the S.U.M. was not in compliance with its charter since it ceased direct manufacturing in 1796 and thus was no longer entitled to the water rights given in their charter. The presiding Chancellor threw out the notion that the S.U.M. was no longer a viable corporation and acknowledged the S.U.M.’s right to the waters of the Passaic as “clear, vested, and prior rights; and the enjoyment of them in their full extent will be secured.” Noting that the Morris Canal was still under construction, the Chancellor refused the injunction against the canal company, but admonished them to resolve their water supply needs to the satisfaction of the S.U.M., “Important interests are involved in the solution.” 48

The two companies finally reached an agreement in 1836, in which a raceway was installed leading from the Morris Canal to the S.U.M. reservoir to return Passaic water used by the canal to the S.U.M. water system. Ongoing disputes over the water flow, however, resulted in the permanent closure of that connection by the canal company in 1845. The quarrels between the two companies continued through the nineteenth century, but the canal became obsolete by the turn of the century because of railroad competition. In 1923, the Morris Canal assets, then owned by the Lehigh Valley Railroad Company, were transferred to the state of New Jersey. 49

The S.U.M. made its last major alterations to the waterpower system in 1838, when they installed a new stone dam across the Passaic River, and in 1846, when they eliminated


48 New Jersey Court of Chancery, New Jersey Equity Reports, Volume 1, 193.

the reservoir. The new dam, located closer to the Falls, “created a larger storage area of water for the increased hydraulic power demand,” which “essentially made the reservoir redundant” notes James Lee in his “Paterson Raceways Research and Documentation” report. Thus, the second alteration in 1846 involved cutting a new channel “from the river to the west end of the Upper Raceway; eliminating the reservoir, and alleviating problems with leaking in the reservoir.” Fifty years earlier Pierre L’Enfant forewarned the S.U.M. that just such a problem would occur should they chose to impound their reservoir in the “cove” and it appears that he was indeed correct.

The remarkable growth of manufacturing in Paterson through the first half of the nineteenth century was largely driven by manufactures of cotton products. Increased production in Paterson, and in the larger mill developments in New England, correlates with significant increases in cotton plant production in the southern states. In 1795, US cotton growers produced eight million pounds of cotton “lint.” By 1800, that number grew to thirty-five million pounds; in 1825, to 255 million pounds; and by 1848, topped one billion pounds of cotton lint. The growth in cotton production in the South was directly linked to the increasing enslaved African American population in the United States between 1790 and 1860. This economic system founded upon enslaved labor, particularly on the cotton plantations of the South, was at the heart of the sectional divide which led to the American Civil War. Ironically, the Northern cotton mills were, by extension, implicated in the perpetuation of slavery even as they fought to end the institution.

Even after the interruptions of the American Civil War (1861–1865), and despite the loss of enslaved labor in the South (though largely replaced by the equally oppressive sharecropping system), cotton continued to flow northward. Cotton yarn and cloth production remained the most significant segment of Paterson manufacturing. Indeed, in 1866, the Arkwright Manufacturing Co. opened a new brick cotton mill on Beech Street, joining the new brick Empire Mill located on the corner of Jackson and Slater Streets. Historian William Nelson identified at least fifteen cotton mills still in operation in 1868.

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Innovative Technologies and the Industrial Revolution

The establishment of the S.U.M. in 1791 was at the very beginning of the American Industrial Revolution. It closely followed the opening of Samuel Slater’s cotton mill in 1790, considered by many historians to be the start of that period of dramatic technological and social change. Great Britain, of course, underwent its own revolution in manufacturing decades earlier and it was British textile manufacturing technology, brought to the United States by men like Samuel Slater, George Parkinson, William Pearce, Thomas Marshall, William Hall, and others, which revolutionized American industry.

American inventors had not been idle in the previous decade—Oliver Evans invented the automated grain mill in 1782, and John Fitch’s first successful steamboat trial occurred in 1787 (patented 1791, improved by Robert Fulton in 1807).54 However, the revolution begun in the cotton mills of Pawtucket, Rhode Island, and Paterson, New Jersey,

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54 Hawke, Nuts and Bolts, 57 and 75.
sparked a wave of American innovations which moved US manufacturing onto the world stage in the nineteenth century.

Though cotton was king in Paterson for many decades, the S.U.M. resources—multiple mill lots with ready access to significant waterpower—provided a platform for the development of new and innovative technologies. From its inception, the S.U.M. was itself an innovation, the vanguard of nationally-scaled industry and corporate capitalization. Men like Alexander Hamilton and Tench Coxe, notes industrial historian Lawrence Peskin, “fervently discussed the need for large-scale American manufacturing a half-century before the Boston Associates built their first factory [at Lowell].”\(^55\) The plans proposed by Philip Schuyler and Pierre L’Enfant for multiple raceways at the Great Falls of the Passaic designed to provide power for a myriad of manufactures were pioneering, though perhaps ahead of their time, and proved eventually to be attainable and profitable for the S.U.M..

American anthropologist Anthony F.C. Wallace observed in his book, *The Social Context of Innovation*, “the direction and speed of technological innovation is inevitably affected by the institutional setting…”\(^56\) The S.U.M. provided an institutional setting within which innovation thrived. By the late 1830s, Paterson manufacturing was moving beyond just textiles—that realm belonged increasingly to the mill cities of New England—and embraced the innovative industries linked to the expanding American frontier, guns and locomotives.

In Paterson, as in other manufacturing towns, new technology often grew out of the machine shops in an effort to address a practical need. Among Paterson’s earliest mechanics, George Parkinson patented his improvement on the Arkwright water frame (for spinning flax, hemp, and wool) in 1791.\(^57\) In 1792, William Pearce and Thomas Marshall announced their invention of a water-powered “Ginn” to remove the seeds from raw cotton, though it failed to perform and was never patented.\(^58\) In the 1820s, it was Thomas Rogers, a partner in the Godwin, Rogers & Co. machine shop, who innovated the power loom capable of meeting the weaving requirements for cotton duck in John Colt’s mill.\(^59\)


Beginning in 1831, Thomas Rogers set out to establish a new manufacturing company backed by New York financiers Morris Ketchum and Jasper Grosvenor. In their new stone four-story building known as the Jefferson Mill and Foundry located on both sides of Spruce Street, the firm manufactured the ironwork for two railroad bridges for the Paterson and Hudson River Railroad (PHRR):

and about the same time an order came from the South Carolina Railroad for one hundred sets of wheels and axles. These orders directed the attention of Mr. Rogers to railroad work generally. In the fall of 1835 a two-story brick building, forty by one hundred feet, was erected on the east side of Spruce Street, nearly opposite the present office, for a locomotive-shop, by which name it was known for thirty-five years. When the “McNeill” [locomotive for the PHRR] was brought to Paterson it lay for some weeks in pieces, just as it had been brought from England, and nobody was at hand to put it together. This gave Mr. Rogers an excellent opportunity to study its construction. Mr. William Swinburne, who was the pattern-maker for the works, proposed to make the drawings and the patterns for the engine. His offer was gladly accepted, and he went confidently to work, preparing the drawings and
patterns, and superintending the construction in every department. It was a
daring experiment, but after much trying and more than a year of hard work
the new engine was completed to the satisfaction of all concerned. It was called
the “Sandusky.” … It was in some respects an improvement on its model
[McNeill], Mr. Rogers having introduced a novel feature, “counterbalancing,”
since adopted in most locomotive engines. For this he filed a specification in the
Patent Office, dated July 12, 1837. He also cast the driving-wheels with hollow
spokes and rim, and in other particulars anticipated the driving-wheel now in
general use on the railroads of America.60

Many orders followed to construct locomotives for the rapidly expanding number of
railroad companies in the eastern states.

In 1869, the Rogers locomotive Union Pacific No. 119 participated in the “Golden
Spike” ceremony celebrating the completion of the Union Pacific Railroad, which spanned
the continent. Railroads dominated the transportation market and the Rogers Locomotive
Works delivered engines across the country and eventually around the world. Historian
William Nelson wrote of the significance of the Rogers Locomotive Works in 1882, “It
would take many pages to enumerate all the improvements in the construction of locomo-
tives which have been originated at these works.”61 The success of the Rogers Locomotive
Works spawned the establishment of the Danforth Locomotive Works in 1852, Charles
Danforth having purchased the former Godwin, Rogers & Co. machine shop, and in 1867,
the Grant Locomotive Works.62

Just as Thomas Rogers’ locomotive innovations were gaining notoriety, a young
member of the extended Colt family began his journey with his own groundbreaking
innovation. Samuel Colt, son of Christopher Colt and grandnephew of Peter Colt (original
superintendent for the S.U.M.), first formulated his design for a revolving gun chamber in
1830 while serving as a midshipman on a merchant ship bound for Calcutta. He carved a
wooden model, on which he based his final design.63 Colt received his patent from the US
Patent Office in February 1836.64

61 Clayton and Nelson, History of Bergen and Passaic, 430.
Figure 34: Images of Danforth Locomotive Works, ca. 1900 (Library of Congress)
Samuel Colt’s Patent Arms Manufacturing Co. selected the site of the former John Colt Rolling Mill in Paterson to construct a factory building dedicated to firearms production. The mill lot lease, still held by the Colt family (trading as the Paterson Manufacturing Corporation), was transferred to Samuel Colt’s company on May 1, 1836. After removing the old rolling mill, the company constructed a “massive new five-story stone factory building. . . dominated by a tall bell tower topped by a gilded weathervane in the form of a Colt rifle” (remnant walls of this building remain standing today). Production began in the spring of 1837. US Army and Navy contracts for guns, anticipated by Colt, never materialized and by 1845, he sold the factory and its contents to cover company debts. Samuel Colt removed to his hometown of Hartford, Connecticut, where he achieved success with his truly innovative design.

It was to the upper floor of the Patent Arms Manufacturing building that Samuel Colt’s brother, Christopher Colt, Jr., brought a new line of textile manufacturing to Paterson in 1840. Their father’s Connecticut Silk Manufacturing Co., among the first in the country, failed to thrive; Christopher Jr. moved the equipment to Paterson to try his hand at the business of spinning silk yarn. Raw silk production had been contemplated as early as 1794 when the S.U.M. directors ordered “White Mulberry Trees for the culture of silk worms” to be planted on company land. The S.U.M. appears never to have followed through on the plan, and in the first half of the nineteenth century, no significant domestic source of raw silk was available in the United States, putting the US silk manufacturing industry at a disadvantage. Within just a few months of commencing the manufactory, Colt’s “1,000 spindles, 200 or 300 doubling spindles and 500 or 600 winding spindles” went silent as well. Though Christopher Colt Jr. is generally not credited with being the father of the silk industry in Paterson, it was, in fact, the presence of Colt’s silk machinery in the old Gun Mill which made it possible for John Ryle and his financial partner George Murray to initiate the Paterson silk revolution just a few months later (see chapter 5).

Figure 35: Samuel Colt patent drawing, #X9430 (US Patent and Trademark Office)

Figure 36: Paterson Museum display of Colt Paterson revolvers and rifles manufactured in the Paterson factory (photo by author, 2018)
Another innovative manufacturer occupied a substantial stone mill building constructed below the Upper Raceway by Roswell L. Colt, known as Passaic Mill. It was a purpose-built structure, leased in 1837 by Henry V. Butler, and designed for the manufacture of paper from hemp rope, knots, and cotton waste:

This rough and apparently unpromising material was first used at the Passaic Mill and a peculiar picker or “devil” was used to tear in pieces and reduce to shreds the toughest knots with the same ease as other machinery shredded the plain rope.

The process of boiling stock under pressure in rotary boilers, a method which has since been universally adopted throughout this country and in Europe, was also introduced by Mr. Butler. Even the coarse sacking in which the cotton-waste and rags are baled, together with pieces of old rope and the like, are picked, cleansed, boiled and manipulated until they leave the mill at last in the form of the finest whitest writing paper. Here the first super-calendered book paper ever manufactured was made.70

The company constructed the Ivanhoe Mill nearby in 1850 and shifted operations there entirely by 1857.

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Connecting to the S.U.M. Raceways

Significant sections of the Rogers Locomotive Works still stand in Paterson today (2019), as does the remnant walls of the Colt Gun Factory, and the Ivanhoe Wheelhouse. All three provide a window on how Paterson factories used the S.U.M. waterpower. The 1887 Sanborn Insurance Map shows the Rogers Locomotive Works with two wooden flumes leading from the Upper Raceway to two overshot vertical wheels, while steam boilers provided backup power to the plant. The 1906 insurance drawing of the works (Figure 33) shows the flumes as enclosed structures. The Iron & Brass Ware Storage building and the two machine shops shown in the 1887 map are still standing today. The Ivanhoe Paper Manufactory, constructed in 1857, was located below the first (northern) spillway on the Upper Raceway. Drawing the first water from the Upper Raceway, the iron flumes led the water to two horizontal turbines by 1887, one located in the wheelhouse which is still extant today (2019). Ivanhoe also had backup power provided by steam boilers. The former Colt gun manufactory, shown as Benjamin Buckley’s Sons Gun Mill on the 1887 Sanborn map, received the last water on the Middle Raceway. The nearby twenty-foot spillway was
controlled by a gatehouse and could be manipulated to increase or decrease the water available to the Gun Mill flume, shown in 1887 as a wide iron structure leading to what appears to be a horizontal turbine.\footnote{See Hunter Research, \textit{ATP CR Study, Vol. I, Factories Below the Falls}, 5.23–5.33 for a good discussion of waterwheel and turbine technology.}
Figure 39: 1887 Sanborn map showing detail of the Ivanhoe Paper Co. connection to the Upper Raceway. (Library of Congress)
Through the first half of the nineteenth century, Paterson’s industrial community diversified to include a variety of manufactures. Textile production, particularly the various industries related to cotton, but also flax (linen) and wool, still dominated the mill seats. Silk was growing in importance as John Ryle’s factory complex continued to expand. As
many as four locomotive factories operated in the city, while numerous machine shops continued their production. Paper, jute (rope), and buttons also factored into Paterson’s expansion through the 1850s. The growth, setbacks, and failures of Paterson manufacturing were reflected in the city’s human population, much of it fueled by European immigration. By the 1850s, the United States, both on its expanding frontier and in its burgeoning industrial cities, was becoming the immigrant destination envisioned by Hamilton and the early industrialists.

The United States is a nation of immigrants. From the first British, Dutch, Swedish, Spanish, and French ships which landed on the North American continent, the territories which later became the United States—and the native peoples which already occupied those territories—were slowly overtaken by the continuous in-flow of immigrants. Most came voluntarily, mostly European men and women seeking land and religious freedom. Some arrived as indentured servants bound to a term of service to repay their passage, or as convicts sentenced to serve their time in the colonies. Many were brought forcibly from Africa as enslaved workers for life.

The first US Population Census, taken in 1790, recorded nearly four million people, including approximately 700,000 enslaved men, women, and children. In New Jersey, the population topped 184,000 people, of whom 11,423 were enslaved. The majority of the “free white” men, women, and children were American-born descendants of colonial immigrants as immigration stalled after the American Revolution. Still, Thomas Jefferson believed the expanding US territorial frontier would attract new land-hungry European immigrants, while Alexander Hamilton believed American manufacturing would attract workers displaced by wars in Europe. Both were right.

By 1820, the US population had risen to more than nine million people, due in part to natural increase, but the census recorded more than fifty thousand “foreigners not naturalized.” At that time more than two million Americans indicated they were “engaged in agriculture,” while approximately 350,000 worked in manufactures. New Jersey’s population of more than 277,000 included 7,555 enslaved men, women, and children. Nearly 16,000 people, approximately six percent of the total New Jersey population, were “engaged in manufactures.” The record showed similar percentages in New York, Connecticut, Massachusetts, and Rhode Island.


73 Approximately fifty percent of New Jersey residents in 1790 were of English descent, twenty percent were Irish, Welsh, or Scottish, twenty percent were Dutch, and the remaining ten percent Germanic and French. These estimates are based upon surnames most commonly associated with country of origin. (Thomas Purvis, “The European Ancestry of the United States Population, 1790: A Symposium,” The William and Mary Quarterly 41, no. 1 (Jan., 1984): 85–101, Table II, www.jstor.org/stable/1919209)

In July 1825, local Presbyterian minister Rev. Samuel Fisher recorded the population of Paterson. This remarkably detailed accounting of Paterson’s people, shops, and factories provides a broad view of an American manufacturing town in the 1820s. Fisher recorded a total of 584 dwellings, churches, schools, stores, and “mechanics shops,” of which 486 were occupied dwelling houses, seventy-five were commercial buildings, and twenty-three were unoccupied buildings.

The population in 1825 topped 7,500 whites (including children) and 165 “colored persons”—a significant increase from the 1,500 people recorded in 1814. Eleven different church denominations were represented among the 849 households, though dominated by churches generally associated with English and Irish heritage—Presbyterian (297 families), Methodist (114), Roman Catholic (113), and Episcopal (57). The second-largest denomination was Reformed Dutch with 201 families, and there were smaller denominations, including a Baptist church with forty-seven families, while Lutherans, Quakers, and Universalists claimed just two families each.  

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75 “A Statistical View of the Manufacturing Establishments, Machine Shops, &c in Paterson NJ,” 1825, “Census of Paterson, NJ,” Paterson Museum, Paterson, NJ. The two other denominations were Reformed Presbyterian and Christian Baptist. Fisher also identified two “Deists.” In 1829, a new Catholic church was under construction, suggesting a significant Irish population.
In 1825, the various Paterson factories and machine shops employed 1,154 men, women, and children. Additionally, Fisher noted that 260 hand looms were in operation, “exclusive of those in the Factories.” There were also numerous smaller artisan shops—hat makers, shoemakers, blacksmiths, wheelwrights, watchmakers, a brush factory, a soap
factory, a carpet weaver, a saddle & harness maker, tailors, and milliners. Retail shops included ten “fancy dry goods stores,” eight hardware stores, twenty-three grocery stores, and “32 called groceries, in which little else but Ardent spirits is sold,” breweries, confectionaries, and seven “Licensed taverns.” Six schools for boys and four schools for girls provided education for 413 children, likely mostly children from the families of factory owners and upper management.

There was a class hierarchy already in place in Paterson by the late 1820s, cemented in the late 1830s by the construction of Roswell L. Colt’s opulent Roswell House. Built on the hill in the center of town once eyed by L’Enfant for a grand public building, Colt’s mansion stood within view of both the prosperous manufactories and the workers’ humble dwellings. A traveler passing through Paterson in 1832 observed that the factories were beautified “with gardens so tastefully laid out, and the banks of the river kept so neat, and ornamented with weeping willows.” Below the factories and Roswell House was the lower town, home to the workers and described by the traveler as “tenements and little houses… on] narrow, unpaved streets filled with pigs and dirty children, with émigré English factory hands, and with the wage-earning daughters and sons of American yeomen.” Paterson by 1830 was on a course to become the kind of “factory town” which spawned the labor movements of later years. However, in 1827, the year Sam Patch first jumped the Great Falls of the Passaic, the city still retained some of its association with the artisan mechanics which made American manufacturing possible.

For Paul E. Johnson, in his book *Sam Patch, the Famous Jumper*, Sam Patch the “mule spinner” epitomized that approaching change. Patch grew up in Pawtucket, Rhode Island, and starting work in Samuel Slater’s “White Mill” at the age of seven. By the time he arrived in Paterson, he was a “boss mule spinner” and became a member of the Paterson Spinners Association. He worked at the Hamilton Mills supervising the children who operated the spinning machines, just as he had done as a child. According to Johnson, many of the other men Patch worked with in Paterson “were veterans of the labor violence and repressed reform movements of industrial Lancashire,” often called “Manchester mobites” by the local newspapers. On July 28, 1828, Patch and the other boss spinners and weavers led a walkout from at least twenty of the Paterson factories protesting a change in

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76 As cited in Paul E. Johnson, *Sam Patch, the Famous Jumper* (New York: Hill and Wang, 2003), 60.

77 Johnson, *Sam Patch*, 60.

78 Johnson described Sam Patch as “a factory hand who, in the 1820s, became America’s first professional daredevil. Patch jumped from high places beside waterfalls.” (Johnson, *Sam Patch*, ix) Patch’s first jump took place at the Great Falls of the Passaic on September 30, 1827.

79 The “spinning mule” was a thread spinning machine invented in 1779, which allowed the skilled operator (mule spinner) and his assistants to work as many as 1,000 spindles at a time. (“Spinning Mule,” *Encyclopædia Britannica*, accessed 1/24/2020, [https://www.britannica.com/technology/spinning-mule](https://www.britannica.com/technology/spinning-mule))

the lunch hour as well as the standard twelve-hour work day. The walkout failed, but was emblematic of the growing divide between workers and factory owners.81

Paterson’s population grew to as high as 13,000 in 1832, but suffered losses with a cholera outbreak that year.82 Several financial panics in 1835 and 1837 forced many factories to close, leaving workers unemployed and forced to move elsewhere. By 1840, the US Population Census recorded just under 7,600 souls, including 182 free blacks and eight enslaved. By 1850, Paterson had recovered, numbering more than 11,000 residents.

81 Johnson, Sam Patch, 66–71.

82 “Census of Paterson, NJ,” Paterson Museum, Paterson, NJ.
Figure 43: 1835 map of Paterson (Library of Congress)
Conclusion

The success of the S.U.M. and the Paterson manufactories through the first half of the nineteenth century was made possible by the infrastructure developed by the S.U.M. in the 1790s. Rising from what appeared to be a failure, the S.U.M. returned to corporate and manufacturing prominence, according to economist Joseph Stancliffe Davis:

for those who were able and willing to wait the Society’s stock became a highly profitable investment and the corporation proved itself no insignificant factor in promoting the development of a “considerable manufacturing town.” The event has thoroughly justified the farsightedness, if not the sense for immediate profit, which was shown by the original entrepreneurs.83

Though many of Paterson’s mill owners had worked their way up from positions as skilled laborers, the profits realized by the mill owners and investors starkly contrasted with the poverty of Paterson’s mill laborers. The deepening chasm between labor and wealth realized the fears of men like Thomas Jefferson, who dreaded this dark side of the Industrial Revolution.

For Paul E. Johnson, Sam Patch’s first jump into the Great Falls chasm was a perfect metaphor of that growing divide. Patch staged his very public jump in 1827 in defiance of Timothy Crane’s very private Forest Garden development above the Great Falls, according to Johnson’s interpretation. The jump took place at the same moment that Crane was installing a covered toll bridge across the Falls, a bridge intended to control access to the Forest Garden property. Crane’s Forest Garden occupied land once enjoyed by all of Paterson’s citizens:

From Godwin’s tavern, pathways led through the forest toward the falls…. Pleasure seekers drank at Godwin’s tavern, hiked through the woods, threw stones into the chasm and dropped them into the crevasses, carved their names on trees and rocks, fished at the base of the falls, or found quiet places to sit and enjoy the summer air…. The working people of Paterson valued the falls ground: it was a wild and beautiful spot that belonged to everyone and no one…. 84

Johnson observed that Patch and his fellow factory laborers viewed Crane’s control over access to the land as another door closed by those who sought to keep them down, and for that, perhaps, Sam jumped.85

84 Johnson, Sam Patch, 48.
85 Johnson’s interpretation of Sam Patch’s first jump is not shared by all historians. Sam Patch may have simply been taking advantage of the large audience gathered to watch the bridge installation. Indeed, Patch did not become a labor organizer. Instead, after several successful jumps at the Great Falls, Patch left Paterson to pursue a career as a show jumper.
CHAPTER 5

SILK CITY

It seems strange that silk, of all filamentary substances that which gives the finest, most durable and most elastic thread, with a tenacity equal to that of good iron, should be the product of an unsightly worm: but so it is.

Levi R. Trumbull

*History of Industrial Paterson, 1882*

Introduction

Sam Patch and John Ryle both worked in the textile industry as children, Patch spinning cotton in Pawtucket, Rhode Island, and Ryle in his brothers’ silk mill in Macclesfield, England. However, the two men could not have been more different in their life journeys. Sam Patch ditched millwork in favor of notoriety as a falls jumper and died in 1829, jumping the falls at Rochester, New York. John Ryle, on the other hand, gained notoriety as he parlayed his experience into an empire of American silk production:

embarking alone in an untried and uninviting line of manufacture in America, he became one of the pillars of the silk trade of the United States, and his name a household word among the laborers in that industry.¹

At its height, nearly one-half of US silk production came out of Paterson mills.² It was a manufacturing revolution initiated by John Ryle.

Over the decades after the American Civil War, silk fueled Paterson’s expansion and came to define the city’s identity as “Silk City.” As many of the cotton mills along the S.U.M. raceways shifted to silk production, the development of steam-powered turbines allowed new mills to locate on sites independent of the company’s system. The S.U.M. reclaimed its position as the Paterson powerbroker with the opening of the hydroelectric plant in 1914. The steady growth of Paterson’s mills and factories through the turn of the twentieth century, like other American manufacturing cities, drove a surge of immigration.


from Europe unlike anything seen before in the United States. At the same time, deteriorating working conditions created an atmosphere ripe for labor unrest. Paterson’s silk mills stood at the center of some of the earliest organized labor actions, and in 1913, the infamous “Paterson Silk Strike.”

The “Silk City” period of Paterson and S.U.M. history exemplifies American industrial textile development from the end of the American Civil War to the beginning of World War I.

A Brief History of Silk Production in the United States

Silk production through the American colonial period was limited largely to the planting of white mulberry trees (morus alba) on which the Bombyx larvae (silk worm) fed to produce their silk-fiber cocoons. This plan fit into the established role of the American colonies as a source of raw materials for British production and trade. Unlike France and Italy, where silk was both cultivated and woven, the climate in England prevented silk cultivation. English silk manufacturers had to purchase raw silk on the open market, putting them at a distinct financial disadvantage.3

Several of the English colonies in North America thus viewed silk cultivation as a potentially lucrative trade item. The colony of Georgia actively encouraged raw silk production beginning in 1732, exporting as much as 10,000 pounds to England in 1750, but ceased in the 1770s with the introduction of cotton.4 South Carolina produced smaller amounts of silk beginning in the 1730s, but also shifted to cotton by the 1770s. Silk culture began on Long Island in the 1750s, shifting to the Connecticut colony in the 1760s when the colonial government began offering incentives for silk production there. The Connecticut legislature reportedly offered “ten shillings bounty or premium for every hundred trees which should be planted and preserved in a thrifty condition for three years, and three pence per ounce for all raw silk which the owners, of trees should produce from cocoons of their own raising within the State.”5 In New Jersey, “large mulberry groves flourished at Princeton and elsewhere” in the 1770s; however, as elsewhere, their numbers declined during the American Revolution.6

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4 Trumbull, History of Industrial Paterson, 162; see also Brockett, The Silk Industry in America, 28–29.

5 Brockett, The Silk Industry in America, 30; see also, Trumbull, History of Industrial Paterson, 164.

6 Trumbull, History of Industrial Paterson, 162.
A revival of silk cultivation began after the Revolution, largely focused in Pennsylvania and Connecticut. In the 1790s, Philadelphia financier Robert Morris planted a large mulberry orchard on his Bucks County estate, near the falls of the Delaware River (Morrisville).\(^7\) New York, Delaware, Maryland, Virginia, and New Jersey all saw renewed interest, and though the S.U.M. considered mulberry cultivation in 1794, they apparently took no action.\(^8\)

Connecticut was the primary locus of silk cultivation and production into the early nineteenth century, where several new factories tested the viability of silk manufacture in the United States. The first water-powered silk mill reportedly opened in 1810 in the town of Mansfield, Connecticut, though crude machinery doomed the tiny mill to failure. In 1828, Edmund Golding emigrated from the English silk mill town of Macclesfield (where young John Ryle lived and worked) to Mansfield where he helped to establish the Mansfield Silk Company in 1829.\(^9\) The Connecticut Silk Manufacturing Company was established in Hartford by Jonathon Cobb and Christopher Colt (Sr.), and in 1838, the Cheney brothers started a mill in Manchester.\(^10\)

John Ryle arrived in Northampton, Massachusetts, in April 1839, where he was employed as a weaver in Samuel Whitmarsh’s “New York and Northampton Silk Company.”\(^11\) Unfortunately for Golding, Colt, and Ryle, that same year “*Morus Multicaulis Mania*,” an odd episode of speculation on sales of the *morus multicaulis* mulberry tree variety, reached its breaking point, ruining many silk growers and producers in the process, including the Whitmarsh, Mansfield, and Hartford (Colt) silk mills. Then in 1844, a mulberry blight destroyed much of the remaining orchards, seriously curtailing domestic raw silk production.\(^12\)

Manufacture of silk products in Philadelphia began in 1770 when the Society for the Cultivation of Silk established a filature, processing silk produced on New Jersey farms, among others. German immigrant William Horstmann, who opened a silk weaving shop in Philadelphia after his arrival in 1815, was reportedly “the first American textile manufacturer to use the Jacquard loom” in 1824, and in 1831 he built a silk-weaving factory. Philadelphia’s “Silk District” survived the mulberry disasters of 1839 and 1844. It grew in

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importance through the second half of the nineteenth century, providing nearly one-third of silk products made in the United States.\textsuperscript{13} There were other silk manufactures established in New York and Massachusetts as well, but none ever equaled the output of the Paterson silk mills, which supplied nearly one-half of US silk production.\textsuperscript{14}

The Silk Manufacturing Process

The highly labor-intensive process of reeling raw silk proved uneconomical in the US labor market. Thus, by the time John Ryle established his silk manufactory in Paterson in 1840 most raw silk was imported from China, though higher grades were gotten from Italy as well.\textsuperscript{15} Once the raw silk was in hand, however, it had to go through a number of processes before reaching the weaver’s loom. According to Linus Brockett, writing in 1876, the initial phase of preparation, “winding, cleaning, doubling, twisting, rewinding and reeling the silk, together constitute what is called throwing (from the Saxon \textit{thrawan}, to twist),” and the “manipulator who passes it through these various processes is called a throwster…”\textsuperscript{16}

The first cleaning of the raw silk prepares it for twisting the threads. Skeins are first soaked for several hours in 110-degree water to soften the gum, which originally held the cocoon together:

When taken out of the water, these bags are put in an open cylinder, porous on the sides, and set in a machine which is operated by steam power, and causes the cylinder to revolve with great velocity. In five or ten minutes the water is pressed out and the gum sufficiently softened to permit of easy winding. It is then wound first on a spool about 3 inches in length. If it is Chinese silk, it is cleaned by being passed through the cleaning machine; each thread usually, but not always, passing between two sharp-edged metal plates, which remove any unevenness, leaving the filament smooth, clean and even. The Italian silk does not usually require this cleaning.\textsuperscript{17}

The prepared silk then moved to the twisting process:

The silk on the second spool is next passed to a doubling machine, where, if it is intended for tram or organzine, two or more threads are joined together, and

\textsuperscript{13} McCarthy, “Silk and Silk Makers.” See also Trumbull, \textit{History of Industrial Paterson}, 162.
\textsuperscript{14} Brockett, \textit{The Silk Industry in America}, 54.
\textsuperscript{15} Brockett, \textit{The Silk Industry in America}, 90.
\textsuperscript{17} Brockett, \textit{The Silk Industry in America}, 90.
drawn upon a third spool. If it is intended for sewing-silk or twist, four, five, six or more are doubled together. The silk in this state is put in the spinning machine, and spun a certain number of turns per inch, the twisting being looser for tram or filling [woof or weft] than for warp or organzine. For the latter, two of these threads are doubled and spun upon a fourth spool, the twist being reversed to make the thread stronger. For filling or tram, two threads or more are twisted together somewhat less closely than in organzine.\textsuperscript{18}

The twists (thread or yarn) were then wound onto skeins in preparation for dyeing.

A fresh water source was necessary to prepare the silk yarn for dyeing. The process to remove the gum still present from the raw silk required boiling the yarn “in soap and water, to free it from any remaining gum, and to give it a more lustrous appearance.”\textsuperscript{19} This process typically reduced the weight of the yarn by up to twenty-four percent. After the cleaned yarn was dried, it was then placed in dye-vats for coloring. Silk dyeing through much of the nineteenth century, according to Paterson historian Levi Trumbull, was typically done “in the yarn” rather than “in the piece.” By 1882, at the time of Trumbull’s publication, newly developed “aniline dyes” made possible “every tint, shade and color desired, except black,” black being still an experimental color.\textsuperscript{20} The dyed silk was then spooled in preparation for sale as sewing thread or for the loom as woof (also weft or tram; the lengthwise threads) and warp (or organzine, the horizontal threads).

The final process in silk manufacturing was the weaving of various fabrics. Initially, American silk production was limited to preparing sewing thread or twists, cords,

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure44.png}
\caption{Organzine and Tram (Woolman and McGowan, \textit{Textiles}, p. 220)}
\end{figure}

\begin{flushright}
\textsuperscript{18} Trumbull, \textit{History of Industrial Paterson}, 152.
\textsuperscript{19} Brockett, \textit{The Silk Industry in America}, 92.
\textsuperscript{20} Trumbull, \textit{History of Industrial Paterson}, 155.
\end{flushright}
trimmings, and weaving ribbon and handkerchiefs, owing to the poor quality of silk available.\textsuperscript{21} Much of the early weaving was done on hand looms in private homes, though the Northampton factory John Ryle worked in had two power looms on which watch ribbon was woven.\textsuperscript{22} Access to higher quality silk improved the potential for production of “silk broadcloths” and the need for more efficient power looms. Brockett described the “problems originally to be solved in the invention of power-loom"s:

\begin{quote}
to make the processes of the old hand-loom automatic, exact and rapid; to obtain tenseness in the warp; to effect its gradual unrolling and the rolling up of the woven goods; to drive the shuttle back and forth at the proper time; to beat up the tissue properly; to effect the stopping of the machinery for the substitution of a new filled bobbin when the one in the shuttle was exhausted; to accomplish ten or more times the work of the weaver within a given period.\textsuperscript{23}
\end{quote}

Writing in the early 1880s, Levi Trumbull described the improvements brought to silk weaving by the power loom:

\begin{quote}
The many improvements recently made permit the weaving of satins and velvets and of most goods of regular figure on the power-loom…. a comparatively recent invention known as the Earnshaw Needle Loom, improved by J. H. Greenleaf, performs very well what is required. By an ingenious stop motion invented by the latter the loom stops instantly on the breaking of a single thread. These looms are calculated for much greater speed than the ordinary power-loom.

. . . Anything like an adequate and intelligible description of the Jacquard attachment is a hopeless task. The most prominent features are: first, a box containing 100 or more wires or needles pointing outward; and second, a hollow, prism-shaped revolving cylinder around and on which passes a chain of cards attached to each other like a “Jacob’s ladder.” If the pattern be complicated the number of cards is greater. The revolving cylinder presents a new card to the points of the wires at every quarter of a revolution, the holes in the cards being so arranged as to raise in succession those threads which will make out the intended pattern, and it is necessary that there be as many cards as there are threads of weft in the pattern.\textsuperscript{24}
\end{quote}

The sound of the pounding silk power looms would soon become as ubiquitous to the Paterson landscape as the old cotton looms of earlier decades.

By the time of Trumbull’s writing of the \textit{History of Industrial Paterson}, published in 1882, the Paterson silk industry was reaching its height, encompassing essentially all the

\textsuperscript{22} Trumbull, \textit{History of Industrial Paterson}, 165.
\textsuperscript{23} Brockett, \textit{The Silk Industry in America}, 99.
\textsuperscript{24} Trumbull, \textit{History of Industrial Paterson}, 154–157.
processes of silk manufactures. From Christopher Colt’s relatively antiquated 1839 throwing operation in the top floor of his brother’s Gun Mill, Paterson grew by 1882 to include seventy-seven silk manufacturers, both large and small, along with seven dye works, and five finishing houses. Though Colt was the first to attempt silk manufacture in Paterson, it was John Ryle who established the first successful silk manufactory and helped to transform Paterson into Silk City.

John Ryle and Silk in Paterson

John Ryle, who emigrated from Macclesfield, England, in 1838 at the age of twenty-two, first made acquaintance with George W. Murray in Northampton, Massachusetts. Murray was a partner with Mr. Whitmarsh in the Northampton silk mill where Ryle worked as a silk weaver. As fate would have it, when Ryle left the mill to move to New York City and manage the importation of his brothers’ silks from England, a chance meeting with Murray on the street in 1839 would change the future course of Paterson industry. Murray asked Ryle to appraise Christopher Colt’s silk machinery, still located in Paterson in the former Colt Gun Mill. After purchasing the equipment in 1840, George Murray hired John Ryle to superintend his new silk manufactory located on the fourth floor of the old stone mill. In 1843, Ryle became a partner in the business and in 1846, purchased Murray’s share. Ryle soon expanded the mill with the addition of a fifth floor with skylights and began weaving silk broadcloth, “a first for Paterson,” and is said to have woven the twenty-foot by forty-foot flag flown at the Crystal Palace during the 1852 New York World’s Fair. Though this first experiment with weaving broad silks soon failed because of competition from foreign imports, Ryle continued to take steps to improve his business. In 1852, he gained full control of the Gun Mill lot after purchasing the Colt family interest in the leasehold.

With full control of the mill lot and building, John Ryle began to expand his capacity, occupying the first floor of the mill (in addition to the third, fourth, and fifth floors) while the H. M. Low & Company cotton spinning shop moved to the second floor. In the open space on the lot, Ryle constructed several new buildings, including a two-story silk mill in 1850, a row of secondary buildings along the riverbank constructed of stone, and a dye house “against the eastern side of the mouth of the North Gates Waste Way.” Thus,

John Ryle became the first silk manufacturer to incorporate much of the range of processes necessary to produce American silk economically.

Through the 1850s, Ryle remained the primary silk producer in Paterson, building his second mill, the Murray Mill, in 1854.29 His operation served as “an incubator for the industry,” training employees who later became factory owners in their own right, including Robert Hamil, James Booth, James Walthall, J. Jackson Scott, and James Thorp.30 Ryle leased his dye works to a succession of men who developed their trade skills under Ryle’s


watch, beginning with James Mayers and William C. Brown. Others included Pierre Thonnerieux, John Heidenreich, Albert King, and Claude Greppo, all skilled in the art of silk dyeing. All these men illustrate the opportunity for advancement in Paterson—from skilled labor to shop owner—made possible by the relatively low start-up costs provided by with the S.U.M. mill seat and waterpower leases.

Perhaps Ryle’s most important employee was Charles Mosley, a machinist whose improvements helped his operations run more efficiently. Levi Trumbull called Charles Mosley “the pioneer in this department, and on him the success of the silk manufacture largely depended.” Trumbull described one of the improvements contributed by Mosley, “the guider or traverse motion, used on winders or spinners to guide the threads in filling the bobbins, so that they were filled evenly, and not in the sloppy manner before in vogue.” This would prove a significant advantage as power loom speeds increased.

Figure 46: Ryle Silk Mill and Dye Works ca. 1855 (Paterson Historic Preservation Commission)

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The industrial landscape of Paterson did not actively shift to silk production until after the American Civil War. Still, by the 1850s John Ryle’s influence on Paterson transcended his role as manufacturer. At the completion of his construction of the Murray Mill, its sixteen to eighteen foot ceilings said to be “light, lofty and spacious . . . vastly different from the low-ceilinged, cramped and ill-ventilated mills to be found in Paterson at that period,” Ryle invited his 500+ employees to celebrate with a dinner and grand ball in the as-yet vacant mill:

At the grand glorification attending the formal opening of this mill the entire operative force employed by Mr. Ryle, more than 500 in number, sat down to dinner on the top floor, where ample preparations had been made, the great coppers having been brought from the dye house to cook in, and the grand piano from Mr. Ryle’s residence to furnish the music for the occasion. It is described as one of the greatest days ever known in Paterson up to that time, and the rejoicing was general.33

John Ryle’s reputation as a “public benefactor” was well earned, according to Paterson historian William Nelson, who surely knew Ryle personally. Nelson described Ryle as “possessed of the most liberal and enterprising spirit, a genial nature, and is hospitable and kind to all,” with “strict integrity” and a “high sense of honor.”34

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33 Trumbull, History of Industrial Paterson, 180.
34 Clayton and Nelson, History of Bergen and Passaic, 467.
John Ryle is remembered particularly for two projects which benefited the citizens of Paterson, both linked to the former Forest Garden property above the Great Falls. Sometime about 1852, Ryle purchased the property and “adorned the grounds around the ‘Cottage on the Cliff’ at his own expense, and threw them open to the public, receiving the grateful recognition of the working population of the city for the bestowment of so great a boon upon them.” Ryle used another part of the property to construct a reservoir to supply fresh water to his operations at the Gun Mill, but also included pathways for public use which wound around the picturesque “lake.” This “Lower Reservoir,” as it became known, was actually an enlargement of a small lake fed by a spring and developed by Peter Archdeacon, previous owner of the Cottage on the Cliff property after Timothy Crane.

The upgraded five million-gallon reservoir played an important role in another Ryle public project. In February 1854, Ryle became the primary investor in the Passaic Water Company. When the corporation advertised for subscribers, apparently few investors took an interest:

36 Clarke et al., *Vista Park Master Plan*, 22.
the full amount of the subscription to the capital stock was only completed by Mr. John Ryle, who had already subscribed for the largest part, filling up the amount needed by subscribing for the balance. This was done at the last hour of the day before closing the books.37

Other investors included Ryle’s nephew, William Ryle, Jr., and Peter Ryle (possibly his brother), as well as Roswell L. Colt, Thomas D. Hoxsey, John J. Brown, Andrew Derrom, Thomas Thorp, and C. S. Van Wagoner. The water project hinged on Ryle’s reservoir, the use of which he offered to the water company in exchange for payment of an annual rental fee.38

Figure 49: 1871 Map of Paterson, detail showing the water works site (Library of Congress)

By 1856, steam-powered pumps forced water from the river through an eighteen-inch pipe up the cliff to the Lower Reservoir overnight and returned by gravity during the day through the city distribution system of pipes. The Passaic Water Company added a pumping station above the Great Falls in 1862 and added a second reservoir, known as the Middle Reservoir, to improve efficiency and add capacity for the growing city. Though the water project was expanding, it blended with the public park on the cliffs above the Falls, including public walkways around the new reservoir and leading to an “observatory” or viewing platform, and a staircase leading down the cliff to the river. The 1868 Soldiers and Sailors Monument, a sixty-three-foot memorial to the Civil War fallen of Passaic County, was the genesis of the name “Monument Heights,” by which the area became known.\(^\text{39}\)

Both the water and park projects were born of a desire to improve life among Paterson’s working class and enhanced John Ryle’s status as a man of the people.

Though faced with repeated adversities—bankruptcy in 1857, fire destruction of the Murray Mill in 1869, and another bankruptcy in 1872—John Ryle apparently never gave up and continued to help others establish their own businesses in Paterson. In 1869,

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\(^{39}\) Clarke et al., *Vista Park Master Plan*, 22–24.
the people of Paterson elected Ryle as mayor, a post he held for two years. In his *History of Industrial Paterson*, published in 1882 at the height of Paterson’s silk boom, Levi Trumbull summarized the significance of John Ryle:

> The people properly, and most naturally, esteem and almost venerate the worthy pioneer and indefatigable promoter of a magnificent industry that he has assisted to rear and foster from the day when he saw it represented by three or four hands, a little rude machinery and a half bale of silk, all on the top floor of the old Gun Mill, until to-day it can boast of 15,000 operatives, great mills filled from bottom to top with the most improved machinery, a consumption of raw material almost fabulous in amount, a production of $16,000,000 per annum, and, better than all, of the fact that not less than 25,000 mouths in Paterson are fed from “the fruit of the loom.”

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41 Trumbull, *History of Industrial Paterson*, 182.
The Paterson Industrial Boom, 1870–1900

John Ryle was reportedly instrumental in bringing about changes in the way the federal government taxed foreign silk imports, both of raw silk and finished silk products. The result of his efforts significantly improved the American silk industry throughout the United States, particularly in Paterson. Early attempts at producing American silk finished goods met with general failure owing to the high cost of importing raw silk and low tariffs on the popular fine imported silks, largely from England. The change began after 1861 with the passage of the first of four tariff increases on imported silk goods, many of them coming from Ryle’s hometown of Macclesfield, England. At the same time, the duties on imported raw silk were reduced, improving the economic outlook for the fledgling American silk industry. As a result, by 1870, the net value of silk production in the United States rose to approximately ten million dollars, up from just over three and a half million in 1860, and continued to rise through the turn of the twentieth century.

By the end of the Civil War (1865), American silk ribbon and lace production led the growth of the industry. While the lace weavers maintained their factories in New York City, the larger ribbon manufactures concentrated in western Massachusetts and in Paterson, New Jersey, where land was relatively cheap and waterpower readily available. “Toward the end of the sixties,” economist Frank R. Mason reported in 1910, “there seems to be an ever increasing number moving from Massachusetts, Connecticut, and New York to Paterson.”

The newcomers are mostly English or German. Such are Strange and Brother, who began the manufacture of ribbons in New York City in 1861–3, and who moved to Paterson in 1868. Louis Franke also began in New York, but joined the migration to Paterson. Wolfsohn, Meyenberg and Company started in 1866 in New York, but they too eventually moved to Paterson. Aub and Hackenburg set up a plant in Philadelphia in 1863. L. R. Stelle and Sons began at Utica, New York, but moved to Paterson in 1866. Messrs. A. Soleliac and Sons began the manufacture of ribbons at New York; three years later the plant was transferred to Paterson.

The majority of these manufacturers produced silk ribbon, according to Mason, a relatively new product in the American market. The exodus of silk manufactures to Paterson

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continued into the 1870s, “until Paterson became recognized as the leading, almost the only, ribbon manufacturing city in the United States.” Mason attributes Paterson’s desirability for new silk manufactures to its proximity to New York City markets. The 1880 silk production chart illustrates New Jersey’s significantly higher value of product over New York, Connecticut, Massachusetts, and Pennsylvania, largely owing to the greater production of high-value broadcloths as well as ribbon.

![Production 1880 Chart](image)

As noted previously, Trumbull’s 1882 History of Industry in Paterson listed eighty-nine silk operations in Paterson between the years 1840 (when John Ryle started) and 1881. Most of the manufactories were small, occupying a single room or mill floor as tenant of one of the larger owners—the “Silk Barons.” The following list (from Trumbull, 1882, with additions from Brockett, 1876, where noted), identifies those larger owners who constructed, or reconfigured, some of the iconic Paterson mill buildings.

Robert Hamil and James Booth (Hamil & Booth): 1855, started in Beaver Mill, bought Passaic Mill in 1862, enlarged several times, called “Passaic Silk Works”; 1872 purchased the “Godwin Cotton Mill” and renamed it Hamil Mill; made ribbons and twilled silks; 1873 added gros-grain and black dress silks; 1874 “added fringed silks, Jacquard weaving, &c.” (Brockett, 74). In 1881 they had 400 looms, 30,000 spindles, and 1,140 employees.


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47 Trumbull, History of Industrial Paterson, 198–255. The photographic collections at the Paterson Museum, the Passaic County Historical Society, and the Paterson Historic Preservation Commission include images of many of these buildings.
Silk City

Industry Mill; 1876, rebuilt Harmony Mill for silk production; 1879 Industry Silk Mill.

William Brown and James Mayers (Brown & Mayers): 1859, dye works on Straight Street (after leaving the Ryle Gun Mill works); followed by Albert King in 1863.


Thomas N. Dale (Dale Manufacturing Co.): 1862, built Dale Mill (1865), purchased the site from the S.U.M., “part of the old Colt Pond.”

Albert Tilt (B.B. Tilt & Son): 1862–1864, occupied Phoenix, Beaver, and Watson mills (whole or in part); 1865, acquired controlling interest in Phoenix Manufacturing Co.—converted from cotton to silk manufactures.

Charles A. Buckley (American Velvet Co.): 1866, built “The Velvet Mill” (Essex Street); later occupied by William Strange & Co.

Dunlop & Malcolm: 1866 (John Dunlop since 1873), built Union Silk Works (Straight Street), made sewings and machine twist.

Claude Greppo: 1867, built the Greppo Mill, dye works; 1871, built a chemical works on Kossuth Street in Totowa section; 1876, partnership with Jacob Weidmann.

George Dexter, Catholina Lambert, Charles Barton (Dexter, Lambert & Co.): 1866, Dexter Mill (1866) and Lambert Mill (1879); “1874 they added power-loom machinery to their mills, and have since added twilled and figured silk and Jacquard weaving to their previous manufactures of dress trimmings and ribbons” (Brockett, 75).

William Strange & Co.: 1868, “This firm have two mills at Paterson, and are the largest silk ribbon manufacturers in the country, employing over 700 operatives” (Brockett, 77). In 1881, the company had 260 looms, 18,000 spindles, and 1,000 employees.

George Frost (George Frost & Sons): 1870, occupied part of Union Silk Mill; 1880 built Albion Mill on Madison St.

George Morlot’s Dye Works: 1870, built complex at Riverside; 1881, included thirteen buildings.

Dwight Ashley and Peter Bailey (Ashley & Bailey): 1873, started “in a small room on Straight street,” then moved to part of the Jaffray Mill; 1880 they built the Riverside Mill “near the River street crossing of the Erie Railway, at Riverside,” powered by a steam engine.

Jacob Weidmann (Weidmann & Greppo/Weidmann Silk-Dying Co.): 1876, partnership with Greppo dye works, dissolved 1878; 1878, works enlarged, fronting eight lots on Paterson St.; 1879, new works on five lots on other side of Paterson St.; “the largest in the United States” (Brockett, 79).

H. H. Freeman & Co.: 1876, occupied Union Silk Works; 1881, “the firm removed to a new frame mill, erected on a plot of thirty city lots purchased from the Society for Establishing Useful Manufactures, on Front street, Totowa, above the Falls bridge.” Located well-away from the S.U.M. raceways, the relatively small Freeman mill had “An 18 horse-power boiler and a 15 horse-power engine furnishes the power to drive the machinery.”

John and Joseph Nightingale (Nightingale Brothers): 1878, sons of James Nightingale, Sr.; 1881 purchased the Boudinot Mill on corner of Straight and Ellison St., renamed Nightingale Mill, “all classes of silk fabrics, plain and figured dress goods, satins, tie silks, brocades, tissues and gauzes, with a fine grade of handkerchiefs as a specialty.”

Robert Adams & Co.: 1881, rebuilt the Hamilton Mill, also known as Bachmann Mill.

(See Appendix C: Nelson and Shriner, Chart of Silk Industries, 1891.)
Other Paterson Industries

Even as the rapid rise in Paterson silk production replaced the old cotton industries, many of the other established manufactures survived and thrived through the second half of the nineteenth century. Long-established Paterson machine shops continued to supply mill machinery and produced locomotives for markets in the United States and abroad. Specialized textiles, paper, beer, and building materials all continued to fill their niche markets. At the same time, new industries, like the Ireland-based Barbour Flax Spinning Company (see below), set up production in Paterson as a way around the Civil War tariffs.

With the expansion of industry in Paterson came an even greater expansion of the city’s population, and providing life’s necessities, and luxuries, became industries themselves. In 1791, breweries were considered a necessity when the S.U.M. included them on their list of prospective manufactures. “Brewing beer,” wrote Trumbull, “must be regarded as one of the important industries of Paterson, it being estimated that the aggregate product is at least 103,030 barrels yearly.” Among the “chief establishments” Trumbull listed were the beer producers: Passaic Spring Brewery, Eagle Brewery, Red Star Brewery, Burton Brewing Company; two producers of ale, Sprattler & Mennel and Mrs. Christina Braun; “and one or two others of lesser note.”

The rock quarrying operation at Mount Morris is among the oldest industries surviving in Paterson, through the nineteenth century. Quarrying began at Mount Morris, under the direction of Pierre L’Enfant, to supply rock for construction of the aqueduct, raceways, mills, and houses. Demand accelerated in the 1830s for both the overlying “trap rock,” used for buildings but primarily crushed for railroad and road beds, and the underlying brown sandstone, prized for its attractive color and ease of preparation for building construction. As the Mount Morris quarrying operation opened land along the river, the S.U.M. conveyed the land in small lots, first a 450-foot strip to the Patent Arms Manufacturing Company in 1836, and again in 1851, and to John Ryle in 1853. Quarrying on the remaining sections of S.U.M.-owned Mount Morris continued under the firm of McKiernan & Bergin, producing stone for homes and industries in Paterson and elsewhere as late as 1897. The 1899 Sanborn Fire Insurance map shows buildings of the Knipscher & Maass Silk Dyeing Company located on the site of the former rock-crushing mill.

Figure 54: 1899 Sanborn map, showing Knipscher & Maass Silk Dyeing Company (Library of Congress)
The Dolphin Mill, also known as the “Scottish Mill” or “American Hemp Manufactory,” was among the specialty textile producers which survived Paterson’s ups and downs. It was established in 1844, at that time producing “hemp carpets, Brussels warp and filling, Venetian filling, rug warps, etc.” Jute products were added to the company’s manufactures in 1850, including jute carpets, and “tailor’s linings,” which were reportedly the first of its kind. “In 1851,” according to William Nelson, “the property passed into the hands of John Taylor Johnson and Robert L. Taylor, the uncle of the former, and they immediately procured a charter as the ‘Dolphin Manufacturing Company,’ so named after one of Mr. Taylor’s numerous ships, of which he was specially fond.” Johnson and Taylor were both natives of Scotland who immigrated to New York City as merchants.

The first Dolphin Company factory was located on Spruce Street, on a lot purchased from the Barbour Company. The company enlarged the building several times, first in 1869 with the addition of a third story. In 1881, they added a three-story brick building to the front of the old mill, fronting one hundred and ten feet along Spruce Street and one hundred and forty feet deep. Shortly thereafter a “new boiler-house and engine-house” was added and they began digging out the rock hill behind the mill, “running up to the ancient Stony road,” to make room for more additions. Though still using waterpower to run their turbines, the addition of the steam power apparatus was a sign of the times. The 1887 Sanborn Insurance Company maps of Paterson show a number of industries with “boilers” added to their power sources.

In the wake of the US Civil War import tariffs, imposed in part to help the Union pay for the ongoing war, Thomas and Robert Barbour brought a branch of their family’s successful flax spinning manufactory in Ireland to Paterson in 1864. The Barbour Flax Spinning Company purchased and occupied the Passaic Mill No. 2 on Spruce Street (formerly occupied by the Ivanhoe Paper Manufacturing Co.), where they commenced operations. In 1877, they expanded with the construction of a large mill encompassing the block surrounded by Grand, Spring, Prince, and Slater streets. Located off the S.U.M. raceways, the Grand Street mill operated solely on steam power. When the old Passaic Mill burned in 1879, the Barbour Co. built a new mill in its place, known as “Lisburn Mill.” In 1881, the Barbour Company constructed a third mill, called the “Granite Mill,” (still extant), on the corner of Spruce and Morris Streets.

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55 Clayton and Nelson, *History of Bergen and Passaic*, 457. All three sections of the Dolphin Mill are still extant.
As noted in chapter 4, the Ivanhoe Manufacturing Company first began producing paper in Paterson in 1837 in the Passaic Mill No. 2, built by the S.U.M. for that purpose. In 1857, the company moved into a new, larger mill constructed on the adjoining lot on Spruce Street. Trumbull cited the “Paper-Maker’s Directory” reporting that the company produced “writing, book and copying paper; amount, 7,500 lbs. every twenty-four hours.”58 The Ivanhoe wheelhouse (still standing) contained “a large Boyden turbine water wheel 87 in. in diameter, giving over 200 horse-power,” along with “two smaller turbines driving other portions of the machinery.” By 1887, several steam engines were added to power the factory, but by 1899, the Sanborn Insurance Company map showed the Ivanhoe complex as “vacant and dilapidated.”

Machine shops had been integral to manufacturing in Paterson since its start with the S.U.M. in 1791, building the machines which powered the city’s cotton boom of the nineteenth century. Working initially largely with wood machine parts, the industry evolved to employ more iron and steel as technologies progressed. By 1850, Paterson machine shops included a foundry to cast iron parts, according to Trumbull, to the tune of “forty to fifty tons weekly.”59

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58 Trumbull, *History of Industrial Paterson*, 283.
Figure 55: 1887 Sanborn map showing Dolphin and Barbour mills (Princeton Archives)
As the century progressed, several of the shops became important manufacturers supplying industrial machines nationally and internationally. One Paterson shop, the Danforth Locomotive & Machine Company, made important improvements in silk processing machinery according to Linus Brockett in his 1876 report on American silk manufacturing:

Our American silk manufacturers—especially those in the sewing-silk and twist trade—have long enjoyed the reputation of having improved materially on the European machinery for throwing silks; but the throwing machines built by the Danforth Locomotive & Machine Co. at Paterson, are greatly in advance of any other produced in Europe or America. These machines, of which we give engravings on another page, are adapted to either tram or organzine; they are made either two or three stories high (the third or upper most tier economizing room, and increasing the capacity of the machine fifty per cent), and of any length or number of spindles desired. The Company have finished one set 32 and another 37 feet long, for Paterson silk manufacturers. The former set
Silk City contains 684 spindles. It is claimed that these frames are capable of producing nearly or quite double the amount of work per spindle as compared with the latest style of European frames; while, large as they are, their mechanism is so true and perfect, and runs so evenly and accurately, that they can be managed by two attendants. This Company also build ribbon looms with shuttles for weaving twenty-eight ribbons in each loom.\(^{60}\)

As implied by its name, the Danforth Locomotive & Machine Company, along with several other shops in Paterson, also specialized in the manufacture of steam locomotives (described previously in Chapter 4). As railroading expanded exponentially through the nineteenth century, locomotives built in Paterson machine shops spread across the United States and Europe. By 1887, the building complexes of the Rogers Locomotive & Machine Works, Grant Locomotive Works, and Cooke (formerly Danforth) Locomotive & Machine Works covered nearly four industrial blocks

Paterson machine shops developed a national reputation for their steam engines and boilers in the burgeoning industrial steam power market. The J. C. Todd, or Todd & Rafferty, Machine Works began operations building mill machinery in 1847, and by 1850 had purchased the “Home Mill” on the S.U.M. “lower raceway” (Van Houten Street). The company specialized in building flax and hemp machinery. In 1872, after acquiring the Rafferty, Smith Company, they added steam engine construction as well, both small boat engines known as “Baxter Marine Engines” and the large, stationary horizontal steam engines which powered factories. The Rafferty, Smith Company reportedly built many of the engines used in Paterson mills.\(^{61}\) Notably, in 1877, John Holland hired the Todd & Rafferty shop to design and build the engine for his first experimental submarine. Holland brought the vessel to Paterson for the installation of the works and launched it in the Passaic River. Unfortunately, the engine failed and was not used during Holland’s test run. The submarine was scuttled in the river and later salvaged in 1927; it is currently part of the Paterson Museum collection.\(^{62}\)

\(^{60}\) Brockett, *The Silk Industry in America*, 91–92.


Figures 57 (left) & 58 (right): 1887 and 1899 Sanborn Maps showing the Ivanhoe Paper Mill complex (Princeton Archives)
Figure 59: Cast iron reeling and spinning machines built by the Danforth Locomotive Co.
(Brockett, *The Silk Industry*, p. 90, 1876)
Figure 60: 1887 Sanborn map showing the Grant Locomotive Works and Cooke Locomotive & Machine Works (Princeton Archives)
Role of the S.U.M. in Supplying Power Evolves

In 1787, Tench Coxe predicted the use of steam power in manufactories: “‘Tis probable also that a frequent use of steam engines will add greatly to this class of factories.”63 Steam power was in its infancy then, developing largely to improve riverboat transport, though Coxe clearly envisioned its potential in industry. Development of the railroads in the 1830s accelerated refinement of the steam engine, which began in England, but was quickly imitated and improved in the Paterson machine shops.

Before the development of a stationary steam engine capable of producing enough power to operate a mill, waterpower remained the choice of most American manufacturers and the factories of Paterson were tied to the S.U.M. raceways. Though waterpower could

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be unreliable, depending upon seasonal changes along the rivers and creeks, steam engines required wood or coal fuel to operate, considered too expensive in fuel consumption relative to the free fuel of waterpower. Additionally, early steam-generated power remained insufficient to drive the machines of a large factory.\(^\text{64}\) By the 1850s, high-compression boilers improved the outputs of stationary steam engines, ushering in a new era in the American manufacturing landscape. In 1853, the journal *Scientific American* reported on the growing impact of stationary steam engine technology on American industry, observing that, “Steam power, for manufacturing purposes, is fast supplanting that of water in many places.”\(^\text{65}\) In 1857, E. B. Atterbury constructed a cotton mill on the corner of Straight and Ellison Streets, said to be the first cotton mill in Paterson built “away from the raceway,” and the first mill operated by steam power.\(^\text{66}\)

Through the expansion of the 1870s and 1880s, the ability to operate independent of the S.U.M. raceway system was important as traditional Paterson mill sites filled. Free of the raceways, manufacturers could purchase the larger lots available on the city’s edges at lower prices. Additionally, increasing industrial and domestic demand for water from the Passaic seriously impacted the S.U.M.’s ability to fulfill its water power obligations.\(^\text{67}\) By the 1880s, many of the Paterson factories included both water and steam power so as to stabilize their power source. In 1881, the Dolphin Mill added steam power to supplement the waterwheel, here described by Trumbull:

> an ingenious device used in gearing the engine acts as an assistant and governor of the water-wheel, so that the more water the less steam will be used, and it is so arranged that when the water is low the water-wheel can be immediately disconnected and the entire mill run by steam alone.\(^\text{68}\)

The 1887 Sanborn maps show “steam boilers” in many of the factories, and many more located outside of the S.U.M. raceway district.

As a corporation the S.U.M. was vulnerable to individuals or companies leveraging ownership of large share percentages to control the activities of the corporation. In 1894, the New Jersey General Security Company purchased a controlling interest in the S.U.M. The trust company apparently owned controlling stakes in several other water companies operating within the Passaic River drainage, their purpose—to “maximize profits from selling water”—came at the expense of the S.U.M.’s contracted power agreements.\(^\text{69}\) Most, like the Rogers Locomotive Company, were twenty-one-year leases negotiated years earlier

\(^{64}\) Hawke, *Nuts and Bolts of the Past*, 195, 208, 214.


\(^{68}\) Trumbull, *History of Industrial Paterson*, 272.

and attempts by the S.U.M. to alter the agreements met with strong resistance. In 1898, the Rogers Company protested new hardware required to regulate the flow of water into the Rogers turbines. Two years later, on December 1, 1900, company president Jacob S. Rogers, son of the founder Thomas Rogers, closed the Rogers Locomotive Company.70

The issue of power shifted with the turn of the twentieth century to electrical generation. Electric illumination had been available beginning in the 1880s, particularly after the 1888 establishment of the Edison Electric Illuminating Company on Van Houten Street.71 Use of electricity to power the mills, however, did not develop momentum until after the shift from direct current (DC) to alternating current (AC), created a safer, more reliable system for electric industrial motors. By 1903, the S.U.M. was considering the generation of electrical power as part of their offering to tenant factories. John H. Cook, hydraulic engineer for the S.U.M., installed a test unit in the Ivanhoe Mill, “a large dynamo run by water power,” which demonstrated the potential for hydroelectric power. Cook’s

70 Nelson and Shriner, *History of Paterson*, 353. “Speculators from Wall street bought the works and ran them for a short time, when they sold them to the American Locomotive Company, the corporation which already owned all the locomotive works in the country with the exception of the Baldwin works in Philadelphia and the Rogers works in Paterson.” (Nelson and Shriner, *History of Paterson*, 353)

ultimate plan was to construct a hydroelectric plant at the Great Falls which, Cook reported, “could produce the same horsepower as the factory waterwheels using 43 percent less water.”72 This would serve the S.U.M.’s goal (as a subsidiary of the New Jersey General Security Company) to “maximize profits from selling water” by further diverting Passaic water from industrial uses.

The S.U.M.’s plan for hydroelectric power at the Great Falls was finalized after a 1910 study conducted by Westinghouse-Church-Kerr & Company. In addition to the hydroelectric plant, the consultants recommended a coal-fired steam generator as backup during periods of low water, estimated to be necessary approximately fifty days throughout a typical year. The hydroelectric plant was completed in 1914, and the coal plant in 1915. The company successfully negotiated with the mills still using waterpower to relinquish their long-term water leases and convert to electric by offering special rates. The change proved to be profitable for the S.U.M. because during its first decades in operation the plant produced more power than was being consumed by S.U.M. power leaseholders. As much as three-quarters of the plant’s generated electricity was sold to the Public Service Company through the 1920s.73 The new power sources also improved the manufacturer’s profitability by reducing costs for materials, equipment, and labor associated with water and steam power in the factories.

As industry freed itself from its dependence on the waterpower delivered by the S.U.M. raceways—first by steam power, then electric power—factory sites expanded outward, fueling additional growth in Paterson. From fewer than one hundred manufacturers in 1870, and a population of just over 33,500, Paterson grew to include over 1,000 industrial “establishments” employing more than 37,000 workers and a total population of nearly 136,000 people by 1920.74


Rogers Locomotive Company,
OF PATerson, NEW JERSEY.

Paterson, N. J., July 20th 1898.

Messrs. Pennington & Beam,

Counsellors at Law, 140 Ellison Street,
Paterson, N. J.

Gentlemen:

Your favor of the 15th inst. is received, but we cannot tell
if it is written as Attorneys for the S. U. M. and have again written to
the S. U. M. to send us the renewal lease.

The question of the aperture has nothing to do with giving the
lease. The aperture is the same as has been used during the old lease.
As we understand it, the change they now wish made amounts to a contrivance
to prevent the natural flow of the water according to the terms of the
old lease.

According to the lease the Tenant is to put in "a cast iron
aperture or mouth piece" and we have done so in accordance with our understand-


Yours very truly,

G. H. Longbottom Sec'y.
Figure 64: S.U.M. Power Plant, 1915 (Paterson Museum)
July 15, 1915.

Phoenix Silk Manufacturing Co.,
Phoenix Silk Mills, Paterson, N. J.

Dear Sirs:

Attention of Mr. L. H. Doutz, Manager.

Referring to our conversation of yesterday, in regard to the water power at your mill:

The quantities of water owned in fee by yourselves, or leased by you from others, is as follows:

In fee to Phoenix Company, 1 1/2 square feet and 9 square inches,
Leased by Phoenix Company from Schiff Estate, 1 square foot,
Leased from the S.U.M. 3 square feet and 63 square inches;

a total of 5 square feet of water.

This quantity of water, used under the head that ordinarily obtains at your mill and with a good water power installation, would be equivalent to 75 Horse Power delivered on the main shaft in the mill.

If your Company will enter into an agreement to permit this Society to use at its power plant at the Great Falls this 5 square feet of water now owned or leased by you, this Society is willing to deliver to your Company, at a meter to be located inside your mill, during each day of 24 hours excepting Sundays and legal holidays, six hundred and seventy five (675) kilo watt hours of electric current to be used upon your premises, and will also permit you to use at a price set forth in the agreement (which price will be slightly in excess of 2 cents per K.W.H.) additional electric current; and if current is used in large

Figure 65: 1915 letter from S.U.M. to Phoenix Silk Manufacturing Co. (Paterson Museum)
Paterson Layers: “Silk Barons” and Mill Workers

The ethnic composition of Paterson’s population of mill owners, workers, and their families between 1870 and 1920 is a significant theme. The specific industries carried on in Paterson helped determine the makeup of the city’s population—particularly the silk industry, but also other textiles and machinery. Great Britain’s early industrial development, focused primarily on textile production, and its close ties to the United States resulted in an early majority of Anglo owners and workers in Paterson. In the later decades of the nineteenth century and early twentieth century, immigrants from other silk-producing European nations—France, Germany, Italy, Switzerland, and Poland—diversified the population.75

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With the implementation of the 1860s silk tariffs, the American silk industry rose at the expense of the English silk industry—devastating the industrial towns in England, but most particularly in the Cheshire town of Macclesfield. The exodus began with John Ryle and James Mayers, who left Macclesfield in 1839 to try their luck in the United States. After Ryle and Mayers established themselves in Paterson, others from Macclesfield followed: Thomas Rowson (John Ryle’s father-in-law), opened a silk mill in 1858–59; John C. Ryle (John C. Ryle & Co.), arrived in Paterson in 1865 and in 1876 established the Central Silk Mill; in 1866, J. Phillips Mackay was employed by John Ryle at the Murray Mill and by 1878 owned the Addy Mill; George Frost (George Frost & Sons) arrived from Macclesfield in 1870; the Grimshaw Brothers opened a mill on Pearl Street in 1872, then moved to the Union Works and Dunkerly Mill, then to the Arkwright Mill where they made silk handkerchiefs and “novelties,” and in 1878 they purchased the Greppo Mill; and Peter Bailey (Ashley & Bailey) opened a Paterson mill in 1873.76

John Ryle and the mill owners who followed him became known as the “Silk Barons” of Paterson. Perhaps none is better known than Catholina Lambert, who emigrated from Yorkshire, England, and by 1861, was majority owner of Dexter, Lambert, & Company. Lambert lived on a country estate “at South Paterson” from 1861 to 1892. During that time, he expanded the company to include four mills, three in Paterson and one in Hawley, Pennsylvania, with over one thousand employees.77 In 1892, he purchased land on Garret Mountain where he constructed his elaborate stone mansion called Belle Vista.78 The hilltop mansion sat outside the city limits, overlooking the industrial streets occupied by the men, women, and children who labored in the Dexter and Lambert mills.

Lambert Castle, as it became known, represented the height of the “Silk Baron” era in Paterson. Before the post-Civil War expansion, factory owners like John Ryle lived close to the mill operations. The house occupied by John Ryle from 1849 to 1859 was a relatively simple brick and frame house, certainly of much higher quality than those of his employees, but sited within view of his city mills. Still, this section of Paterson was at the time referred to as “Quality Row,” according to an 1873 interview with Dr. A. W. Rogers, “where all the leading people lived, and where all the money was made to erect the handsome houses in the eastern part of the City.”79

76 Trumbull, *History of Industrial Paterson*, 228.
Figure 67: Belle Vista (Library of Congress)
Figure 68: John Ryle House, 1927 (National Register documentation)
The “handsome houses” referred to by Rogers were larger Victorian-style houses erected on the expanding east side of the city along Broadway. The 1877 Atlas Map showing Paterson’s eastern Wards illustrated large houses on large lots under the names of James Booth, Thomas and Robert Barbour, several Baldwins, Dr. A. W. Rogers, and Robert Hamil, among others. The map showing Paterson’s “3rd and 6th Wards” in the 1877 Atlas illustrates the growing physical separation of the owner/management class from the working class—the Erie Railway serving as a convenient dividing line. The map also clearly indicates the expectation of continued economic and population growth in the coming years, an expectation which would be filled particularly during the 1880s and into the turn of the twentieth century.

In William Nelson’s contemporary 1882 publication, History of Bergan and Passaic Counties, he reported on the “emigrant train” he saw arriving:

During the whole summer of 1880 there was an unprecedented increment in the foreign population of Paterson, and it was an interesting sight to see the arrivals every night by the “emigrant train” of quaintly attired new-comers from the Old World, from England, Scotland, Ireland, Holland, France, Germany, Italy, and other countries,—with their quaintier luggage, who had come straight
to Paterson, attracted hither by the enthusiastic reports sent “home” by friends who had come earlier….\textsuperscript{80}

Statistics for Paterson in the 1880 US Population Census show that the vast majority of the “foreign-born” population originated from the British Isles (12,470), while a much smaller number (2,267) claimed nativity in Holland, eighty-seven from Italy, twenty-two from Poland, twenty-six from Russia, sixty-seven from Sweden, and 569 claimed birth in Switzerland.\textsuperscript{81} Immigrant men reportedly held as much as two-thirds of the skilled silk weaver positions in 1880, while women and children performed the jobs requiring less expertise.\textsuperscript{82}

Figure 70: 1877 Atlas Map, Paterson 3rd and 6th Wards (Library of Congress)

Paterson’s working population began to diversify even more after 1890 as the numbers of Italian and Eastern European (largely Jewish) immigrants swelled. By the 1910 census, just over twenty-percent of Paterson residents claimed Italian birth and fifteen

\textsuperscript{80} Clayton and Nelson, \textit{History of Bergan and Passaic}, 407.


percent from Russia. Both men and women worked in skilled and unskilled positions and it appears the kind of work they found often correlated with their cultural background. The ATP site study completed by Hunter Research, Inc. made some general observations on the links between ethnicity and occupation in Paterson. Northern Italian men worked as skilled laborers, particularly in dye works, while southern Italian men held unskilled or semi-skilled positions across the textile industry. Italian women tended to have skilled positions and German women worked as skilled weavers and warpers. Irish and Eastern European men and women held unskilled jobs. American, English, and Jewish women worked only until they were married.

Figure 71: 1880 Population census figures for selected cities (see Line 34 for Paterson figures), showing country of origin. (US Census Bureau)


In 1902, a disaster brought the Paterson community together. The “Great Conflagration,” later called the Great Fire of 1902, began in the early morning hours of February 3, fanned by a strong northerly wind. Firefighters from across the city and nearby communities fought the fire through much of the day. In the end, twenty-six blocks of Paterson’s business and residential districts were destroyed, including twenty-six stores, two newspapers and the Western Union, six office buildings, five “club houses” including the YMCA, six banks, five churches, eight public buildings (including City Hall, the library, and two schools), and an estimated 500 homes and apartments. Remarkably none of the mills or factories were damaged. However, newspaper reports placed the number of homeless at over 1,000 families, many of them “well-to-do.” On the afternoon of the fire, Mayor John Hinchliffe was quoted saying, “I am deeply grateful to the men who so promptly came to our assistance... and were it not for their quick arrival and subsequent heroic work, I am afraid that the city of Paterson would by this time have been a desolate black spot.”

The city was saved, and though many lost their employment in the local business community, the Paterson factories continued their work.

By 1920, the flood of immigration into the city had slowed. Between 1910 and 1920, the total population of Paterson grew by approximately 10,000, compared to around 20,000 over each of the three previous decades.

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**Table 19. New Jersey - Race and Hispanic Origin for Selected Large Cities and Other Places: Earliest Census to 1990**

![Figure 72: Population Census for Paterson, showing population changes from 1840 to 1990 (US Census Bureau)](image)

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86 “Historical Census Population Totals, 1790–1990.”
Labor Unrest—
The Paterson Silk Strikes of 1911 and 1913

The divide between the silk mill and dye house owners, as well as other manufacturers, and the workers who populated their factories seemed to grow wider with each decade, particularly after 1890. This was not limited to just Paterson shops, as discontent among industrial laborers existed across the US as well as industrialized European nations. Paterson, however, found itself at the center of one of the largest silk industry strikes of the early twentieth century. Known simply as “The Paterson Silk Strike of 1913,” this infamous labor walkout had its origins in a smaller strike in November 1911. Both strikes began with the weavers at the Doherty Silk Company mill.

Paterson was no stranger to labor actions, beginning as early as 1824. In 1828, Sam Patch and his fellow boss spinners and weavers staged a walkout over a change in the lunch hour. In 1835, child laborers in Paterson walked off the job in a fight to reduce the thirteen-hour workday. That strike lasted two months and involved as many as 2,000 children and sympathizers. An investigative committee was sent from Newark, New Jersey, which concluded that Paterson’s cotton mills were “more congenial” to autocratic Russia than to the American “land of the free and home of the brave.” Similar strikes were occurring throughout this period in other American industrial cities such as Pawtucket, Lowell, New York, Philadelphia, and the growing midwestern industrial city of Chicago.

Long workdays continued to be a contentious labor issue throughout the United States into the 1880s and beyond. Increasing immigration altered labor’s bargaining power and infused European anarchism and socialist ideals into the unrest. The Knights of Labor (KOL) and the Federation of Organized Trades and Labor Unions (FOTLU) took up the call for improved working conditions by organizing local labor actions. The FOTLU was the more radical of the two organizations, its best-known action being the May 1, 1886, national general strike for the eight hour day. The May 4 Haymarket massacre (also known as the Haymarket affair or riot) which followed in Chicago marked a dramatic escalation of violence in US strike actions. In November 1886, Samuel Gompers’ efforts to unify the existing trade unions under a national umbrella organization resulted in the formation of the American Federation of Labor (AFL), an amalgamation of FOTLU, some KOL affiliates, and other regional unions, becoming the dominant national labor union in the US. Their response to the growing violence, according to labor historians David Roediger and Philip Foner, was to scale back their actions. There were others, however, like Bill

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89 Roediger and Foner, *Our Own Time*, 125–145.
Haywood, a founding member of the International Workers of the World (IWW or “Wobblies”), whose commitment to anarchism reportedly deepened after the Haymarket massacre.\textsuperscript{90}

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It was within this atmosphere of the growing economic, ethnic, and political divide between labor and management that the silk workers of one Paterson mill reached their breaking point in the waning months of 1911. The year 1911–1912 (year ending October 30, 1912) was a record year for strikes in New Jersey, according to the New Jersey Bureau of Statistics of Labor and Industry. In those months alone, ninety-seven strikes occurred “resulting in loss of time and wages,” an increase of thirty-one percent over the previous year. The Bureau’s 1912 report placed the blame for the increase squarely on “the avowedly revolutionary organization known as the ‘Industrial Workers of the World’” (IWW). The report noted that “approximately 90 per cent, of the workmen and operatives involved in

these strikes were foreigners of the non-English speaking races…” 91 Though the Bureau clearly viewed the members of the IWW as trouble-makers, factory workers in Paterson saw the IWW as an opportunity to improve their working conditions.

In December 1911, the weavers in the Doherty Mill in Paterson determined to organize under the IWW banner, a radical shift from the less confrontational AFL and the traditional craft unions, in an attempt to improve working conditions in the mill. The February 1912 headline in the Industrial Union News, published by the Detroit IWW, applauded the Doherty weavers’ action: “INSPIRING ACTION OF SILK WEAVERS—Local of United Textile Workers Dump Fakirs Overboard and Organize IWW Local.” 92 The Union News reported the details of the strike, in which two hundred weavers in the Doherty Mill walked out over management’s plan to change to the “four-loom system”:

A four-loom system means that one weaver shall operate four looms, whereas two looms and no more have heretofore always been considered sufficient for one weaver. But the pockets of the silk capitalists cried for greater profits and the Doherty company attempted to double the number of looms upon each weaver without even increasing the wages to any appreciable extent. The wage of a four-loom weaver was set by the firm at only $15.40 per week, although a weaver can earn about $13 or $14 a week on two looms, figuring on a piece work basis.

But it is not the wages that the striking weavers are complaining about—they do not want a four-loom system at all, realizing that the physical and mental strain on the workers would be terrific, and realizing, also, that with one weaver doing the work of two, 50 percent of the weavers would be thrown out of employment (if not immediately, within a very short time) and brought into competition with the 50 percent happening to have jobs.

The argument of the firm was and is that without driving the weavers faster than ever and squeezing additional profits out of them, the firm could not exist owing to the competition going on throughout the silk industry. Pennsylvania was especially pointed out as the field from which the fiercest competition emanated. 93

The strike lasted more than three months, expanding through sympathy strikes to include as many as 5,000. The IWW urged workers to participate in the strike, according to the

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Bureau of Statistics report, “and within a few weeks after the strike began in the Doherty Mills, a majority of the employees of practically all the silk firms in Paterson and vicinity were enrolled in the new organization [the IWW].”

The strike ended in March 1912, considered a success with negotiated agreements. However, the agreements proved to be tenuous and short-lived.

Less than one year later, in January 1913, the weavers at Doherty Mills again walked out over a renewed plan by management to adopt the four-loom system. In his 2002 article analysis of the earlier strike, Daniel De Leon claimed that through 1912, members of the “Chicago-based anarchist IWW” aided the mill owners in identifying and blackballing the socialist “Detroit IWW men” of Local 25 who led the 1911 strike. These actions undermined the agreements made between the union and mill owners and left the labor landscape open for action under Chicago IWW leadership.

Among those leaders who came to Paterson early in 1913 was Bill Haywood and his associates Carlo Tresca, Elizabeth Gurley Flynn, and Patrick Quinlan. As Quinlan wrote in March 1913, “Paterson feels that in order

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95 De Leon, “Paterson, NJ silk workers’ strikes (1911–1912).”
to be safe he [the worker] must go to the industrial union and, fortunately, this time there is no doubt as to who, which, and what only the one union—the IWW of Chicago.”96

On February 24, the leadership hosted a mass meeting for Paterson laborers, out of which came a vote for a general strike. The purpose of the strike then extended far beyond the grievances of the Doherty weavers, addressing the eight hour workday and increases in wages as well. By the end of March as many as 20,000 workers in Paterson were on strike, according to the 1913 Bureau of Statistics report. The Bureau report, however, opined that the strikers were “under the influence of a steadily maintained agitation in the form of Sunday mass meetings, bands of strikers parading through the mill district during working hours, with other measures of a more or less coercive character.”97 Most of the mills were closed, continued the report, “as the best means of affording protection to their faithful workmen,” who picketers reportedly treated with insults and in some cases, “actual personal violence.”98 Quinlan estimated “about 25,000 out on strike,” and in contrast to the Bureau of Statistics’ official description of the strike, Quinlan noted that “not a man, woman, nor child was coerced, the capitalists’ press misrepresentations, calumny, and slander to the contrary.”99

It is said that the most remarkable thing about the Paterson Silk Strike of 1913 was the steadfast unity of both the laborers and the mill owners alike. With neither willing to budge on their demands, the strike dragged on for six months. Strikers marched and picketed in front of the mills while the mill owners enlisted the police and private detectives to break up the crowds. At times it became violent, including the death of Valentino Modestino, reportedly standing on his porch with a child in his arms when he was killed by a detective’s stray bullet.100 Police closed the workers meeting halls, so in May mass meetings were held in nearby Haledon in front of the home of Pietro and Maria Botto.101


101 The Pietro and Maria Botto House is a designated National Historic Landmark and operates as the American Labor Museum, https://labormuseum.net.
Journalist John Reed, who conceptualized the Paterson Strike Pageant, gathered strike information from the county jail cell where he and about forty strikers, including Bill Haywood and Pat Quinlan, were held on various charges. Reed described the jail scene in a June 1913 article in the journal *The Masses*:

Some had been lined up against a wall, as they marched to and fro in front of the mills, and herded to jail on the charge of “unlawful assemblage!” Others had been clubbed into the patrol-wagon on the charge of “rioting,” as they stood at the track, waiting for a train to pass! They were being held for the Grand Jury that indicted Haywood and Gurley Flynn. *Four of these jurymen were silk manufacturers, another the head of the local Edison company—which Haywood tried to organize for a strike—and not one a workingman!*  

Most of the men held in the jail were Italian immigrants; others were Dutch, Belgian, Jewish, Slovak, German, Polish, even “one Frenchman and one ‘free-born’ Englishman.” None of the men were “Americans,” who, Reed was told, liked to talk, but did not like to fight.  

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103 Reed, “War in Paterson,” 16.
Figure 76: Valentino Modestino (American Labor Museum)

Figure 77: Mass-meeting at the Botto House (Wayne State University, Reuther Library, photo ID 5165)
John Reed’s Paterson Strike Pageant, held at Madison Square Garden in New York City with a cast of 1,200 actual strike participants, was intended to raise money for the strikers. Though the performance was well attended and hailed for its artistic quality, the event brought only $150 to the Paterson laborers. Some, including Elizabeth Gurley Flynn, believed the failure of the pageant broke the will of the strikers as they and their families suffered with no relief provided by the IWW. On August 1, 1913, the strike ended, having achieved none of the workers’ demands.

Figure 78: Iconic Paterson Silk Strike Pageant poster (Wikimedia Commons)

104 McNamara, “Paterson Strike Pageant.”
105 Elizabeth Gurley Flynn, “The Truth About the Paterson Strike,” in McNamara, “Paterson Strike Pageant,” 70.
Conclusion

The end of the 1913 Paterson Silk Strike did not spell the end of labor actions in Paterson. In fact, in 1916, workers threatened another general strike forcing management to agree to a nine-hour workday. However, Paterson industry never really recovered from the 1913 Silk Strike. Workers went back to work—those with jobs to return to—and often received lower pay than before the strike. Many were laid off or had been replaced. Some plants removed themselves from Paterson altogether. By 1915, the Doherty Mill was occupied by four tenant operations. The silk industry in Paterson would never return to its 1890s glory days.

The country was gearing up for the war in Europe, soon to be known as the Great War or the War to End All Wars (and eventually World War I), and industry shifted its attention to the war effort, which proved to be good for business. Paterson manufacturers would benefit from the war economy, but struggled in its aftermath. Workers lost jobs and bargaining power as well, as the revolution in Russia, moved by Marxist ideology, caused a backlash in the United States against the radical unionists.106

Figure 79: 1899 and 1915 Sanborn maps showing the Doherty Mill (Princeton Archives)
CHAPTER 6

CHANGING PATERNON: MIGRATIONS, DEPRESSION, AND WAR

... look away north by east where the church spires still spend their wits against the sky to the ball-park in the hollow with its minute figures running—beyond the gap where the river plunges into the narrow gorge, unseen...

*Paterson*
William Carlos Williams

**Introduction**

Though the Paterson silk industry and its workforce shrank after 1913, as manufacturers shifted more production to lower-cost Pennsylvania plants, industry remained key to the city’s economy. At the same time, the “Great Migration” of African Americans streamed from the southern states, heading for the industrial cities of the Northeast and Midwest. A brief reprieve for Paterson’s manufacturing community came at the cost of war—a war in Europe thought to be the “war to end all wars.” That proved not to be the case as war again loomed by the end of the 1930s. Though Paterson industry benefited from increased production during both World War I and World War II, in between the wars a cycle of economic depression and recovery ensued, followed by a depression so devastating it will be forever known as “The Great Depression.” In Paterson, construction of a municipal stadium helped a Depression-stricken workforce—and segregated African Americans—find moments of pleasure during a time of hardship. With the conclusion of the Second World War in 1945, the S.U.M. also came to an end as the corporation sold its assets to the City of Paterson. By then, decades of innovation and labor turmoil had changed the industrial landscape of Paterson forever.

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Paterson’s Changing Population—
African Americans

From its establishment in 1792, Paterson likely had a small African American population, both enslaved and free. After New York’s abolition of slavery in 1799, New Jersey followed in 1804 with legislation providing gradual emancipation of enslaved African Americans. It was the last northern state to do so.² By 1820, the population of Acquackanock Township, including the unincorporated town of Paterson, numbered 153 enslaved men, women, and children, and 191 “free colored persons.”³ Rev. Samuel Fisher counted 165 “Coloured Persons” living in Paterson in 1824–25. His detailed census dated June 1824 listed just two black households, “Susan black woman,” and “Toby black man,” both of which included both black and white occupants. All the remaining 150 or so black Paterson residents lived in white households, their status as servant or enslaved person unknown, including five in the Reverend Fisher’s home, six at Colonel Abraham Godwin’s “hotel,” and one in the home of Peter Colt.⁴ Fifteen years later, according to the 1840 US census, 190 African Americans lived in Paterson, eight of whom were still enslaved. At that time, African Americans represented just two-and-a-half percent of the Paterson population. Though the number of African Americans living in Paterson continued to increase, their percentage within the total population fell over the next five decades as European immigrants increased at a much greater rate through the 1890s.⁵

The US Population Census for Paterson taken in the years 1910 and 1920 showed a changing pattern of population growth as the number of whites (European immigrant and American-born) began to level off, while blacks (African American) increased (see Figure 72). Two factors were involved, one the growing anti-immigrant feeling among Americans resulting from the war in Europe, which slowed immigration. The other was an internal migration of African Americans from the southern states where Jim Crow laws and racial violence severely limited their ability to live and work.

The migration began slowly after the failure of Reconstruction in the South, as black families left the growing violence and unemployment for the promise of work in northern cities. The first dramatic wave of what became known as the “Great Migration”


occurred around 1915, the remarkable movement of people revealed in the census records. The African American population of New York City grew from 91,000 in 1910 to over 152,000 in 1920; Detroit's black population rose by 30,000 over the same decade.\(^6\)

In New Jersey similar exponential growth began somewhat earlier—in Camden, the African American population more than quadrupled between 1870 and 1880, nearly doubled in Trenton between 1880 and 1890, and in Paterson rose from 641 African Americans in 1890 to 1,182 in 1900. When the 1915 migration wave hit Paterson, the black population nearly doubled again from just over 1,500 in 1910 to more than 2,900 African Americans by 1920.\(^7\) It is not clear why these New Jersey cities attracted the early migrants, Camden perhaps because of its proximity to Philadelphia. Northern New Jersey may have been attractive earlier because those counties began to reverse a trend toward segregated schools in the 1870s. In 1881, integrated public schools became New Jersey state law, though compliance in the southern counties was problematic.\(^8\)

African Americans, typically relegated to domestic and agricultural jobs, played a larger role in the industrial workforce after 1914 as international events brought the United States closer to war in Europe and temporarily stemmed the tide of immigration. In New Jersey, according to Seton Hall University history professor, L. A. Greene, the “proportion of blacks in domestic and personal service occupations declined from 55.1 percent in 1910 to 43.3 percent by 1930, while the percentage of blacks in manufacturing and mechanical industries increased from 18.9 percent to 29.7 percent between 1910 and 1930.”\(^9\) African American women, like many American women, played a significant role in keeping industry moving during the war.

**World War I and Paterson Industry**

Before the United States' April 1917 entry into the Great War in Europe (later called World War I), the United States remained neutral and continued to carry on international trade. While Great Britain, France, and Russia sunk more deeply into war with Germany and Austria, American textile, iron, and munitions manufacturers benefited from the sales of wartime supplies. German submarine attacks tested US neutrality, however, by first sinking the passenger ship *Lusitania* in 1915, with over one hundred Americans onboard, and later attacks on merchant ships. On July 30, 1916, an explosion of munitions stockpiled

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\(^6\) Gibson and Jung, “Historical Census Statistics,” Table 33 (New York) and Table 23 (Michigan), “Race and Hispanic Origin for Selected Large Cities and Other Places: Earliest Census to 1990.”

\(^7\) Gibson and Jung, “Historical Census Statistics on Population Totals By Race, 1790 to 1990.”


on Jersey City’s Black Tom Island depot rocked the New York Harbor. The American-made munitions were destined for Britain and France—their destruction was deemed sabotage by German operatives. By the end of March 1917, President Woodrow Wilson stood before Congress to request a declaration of war against Germany and its Austrian ally. Congress complied.

United States’ involvement in the Great War lasted little more than a year as the war concluded in November 1918. Its impact on American industry, however, began much earlier in 1914, as the Allied Powers (Britain, France, and Russia) sought military supplies from the United States. This was a dramatic reversal from the post-Revolution period, in which Alexander Hamilton’s Report on Manufactures identified US dependence on foreign-made military supplies as a particular problem. Exports from the United States to Europe increased by nearly 2.5 billion dollars between 1913 and 1917, which gave rise to a similar increase in the US labor force—from forty million in 1916 to forty-four million in 1918.

American industry in general, by the second decade of the twentieth century, had begun to expand beyond the confines of the old industrial city centers built on waterpower. Paterson factories were small in comparison and their production capabilities too limited

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to fill the enormous military supply requirements. Several New Jersey machine companies were called into service during the US Navy’s fleet buildup in 1917. These included Babcock & Wilcox Co., of Bayonne, N. J., which made ship boilers, and “the De Laval Steam Turbine Co.’s works at Trenton, N. J., where gears were cut for all the Cramp destroyers and for the first 10 assigned the New York Shipbuilding Corporation.” The Navy’s 1922 report on the Bureau of Engineering noted that only “some of the firms that contributed to the completion of the major portions of the work on the destroyers” were identified in the narrative. “To mention all,” the report continued, “would be to mention many of the large as well as a large number of the small manufacturers of this country.” It seems likely at least one of the machine shops of Paterson would have played a part in this effort as one of the “small manufacturers.” The American Locomotive Company (ALCO), by then a large conglomerate which included both the Cooke and Rogers Locomotive Works, built narrow gauge steam locomotives for the War Department Light Railways (WDLR) bound for service behind the trenches, though it is not known if any of that work occurred in the Paterson shops.

Even Paterson’s silk industry, struggling to find stability amid repeated labor actions, improved during the war effort:

One does not associate silks with the grim business of war, yet it was demonstrated immediately upon our entrance into the war that there were many ways in which the silk industry was of prime importance in conducting a war.

...While our big guns could not be fired without silk to make their cartridge bags, it also developed that there were many other purposes for which silk was necessary in war; parachutes for various kinds of flares, parachutes for airplanes and balloons, balloon cloths and airplane cloths.

The Curtiss Aeroplane and Motor Company of Ohio, which later merged with Wright Aeronautical Corporation in Paterson, produced thousands of the silk-winged Jenny biplanes, most of them the JN-4D trainers. Jane Wallerstein, chronicler of Paterson’s Jewish silk workers, noted that some of the men and women who had moved out of

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13 History of the Bureau of Engineering, 30.


16 Jim Winchester, ed., The Aviation Factfile: Biplanes, Triplanes and Seaplanes (London: Grange Books plc, 2004), 88. The Wright Aeronautical Company, which moved to Paterson in 1919, licensed the design for the engine that powered the Curtiss-built JN-6H airplane, the last of the “Jenny” series, used by the US Navy beginning in 1918.
Paterson because of the recurring strikes returned during the wartime expansion to open their own shops: “The same weavers who had recently cheered denunciations of capitalist oppression and ‘the bosses’ were now eagerly becoming bosses themselves.”

Figure 81: British Kite Balloon (Library of Congress)

Paterson’s Changing Industrial Landscape through the 1920s

The economic high brought on by the war economy ended as quickly as it began. After the armistice of November 11, 1918, which ended the war, military supply orders stopped and American factories quickly reduced production. Wages fell as well and many workers were laid off. In Paterson, silk mills and machine shops continued their migration to Pennsylvania and southern states where cheaper land and labor could increase company

profits. According to one source, “By the summer of 1922, Paterson had lost one-third of its mills to Pennsylvania and 40 percent of its silk workers were unemployed.”

The post-war recession was relatively brief and for much of the 1920s the American economy thrived on industry innovations which in many cases grew out of the war effort. The 1920s heralded the age of automobiles, airplanes, and artificial silk. The 1920 US Population Census revealed that the United States had become an urban nation with more than fifty percent of the population living in urban areas, defined as “cities and incorporated places” with a population of 2,500 or above. Many of the smaller “cities” were actually quite rural, areas attractive to industry for the lower land and labor costs. The urban category also included the burgeoning cities like Chicago, where railroads and meat processing were the dominant industries, and Detroit, where the relatively new automobile industry dominated. Both cities attracted African American migrants from the South and immigrants from across the ocean. The largest American city was New York City, the heart of the nation’s financial system—a system established by Alexander Hamilton—and the home of the “Garment District” where fashion trends were born and broadcast to influence American and European consumers.

The City of Paterson in 1920 had a population of over 135,000, and though its growth was slowing, it still provided a fertile ground for innovative industry. In 1920, Wright Aeronautical Company moved to Paterson from New Brunswick. The company was the direct descendant of the Wright Company, established by Wilbur and Orville Wright in 1909. After Wilbur Wright’s death in 1912, Orville Wright took over the company and in 1916 formed a partnership with Glenn L. Martin. The Wright-Martin Aircraft Corporation produced more than 5,000 airplane engines during World War I (the Great War), particularly the Hispano-Suiza (Hisso) engine used in the later Curtiss Jennys. After the war, the Wright-Martin partnership ended and in 1919, the Wright Aeronautical Company was formed and moved its operations to Paterson. The company reportedly chose Paterson because of the availability of skilled mechanics left unemployed by the shuttered machine shops.

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Wright Aeronautical occupied a relatively new building in Paterson, built in 1916 by the Paterson Industrial Development Company. It was located adjoining the Erie Railroad, Lewis Street, and Martin Street, on a series of vacant lots owned, according the 1915 Atlas of Paterson, by the “Society’s Land Co.” By 1931, the operation had expanded across parts
of three adjoining blocks. The Wright Company’s expansion was fueled by the development of a new, more efficient air-cooled engine called the J-5C Whirlwind:

After purchasing the Lawrance Aero Engine Corporation, Wright Aeronautical was able to successfully design and build the J-5C Whirlwind. It had 9 cylinders; was light at 510 lbs.; had no water-cooling appurtenances. It was simple and easily maintained. The Whirlwind developed 220 HP at 1800 rpm, a low speed that contributed to its reliability.23

The Whirlwind engine, built in Paterson, became famous—and profitable—by its use in Captain Charles A. Lindbergh’s “Spirit of St. Louis” in 1927, the first airplane to fly non-stop across the Atlantic Ocean. Two years after Lindbergh’s historic flight, the Wright and Curtiss companies merged to form the Curtiss-Wright Corporation, headquartered in Paterson through the 1940s.24 The short-lived Gates-Day Aircraft Company followed Wright to Paterson in 1927 where they built civilian aircraft. In 1928 it was renamed the New Standard Aircraft Company, but by 1931 the company was bankrupt.25

Another 1920s industry innovation which had a smaller effect on Paterson was the development of “artificial silk,” later known as rayon. The man-made cellulose-based thread was first developed in France by chemist Count Hilaire de Chardonnet, who acquired a patent for the process in 1884. His product caught the attention of the E. I. Nemours DuPont Company of Delaware, who purchased the patent rights after World War I.26 The popularity of rayon grew quickly in the United States because of its low cost, relative to raw silk, and its reliability as a man-made fiber which was not dependent upon the weather or subject to disease.27 The new fiber could also withstand the higher-speed power looms used in cotton and woolen mills, which were easily converted to the new production and required fewer skilled weavers to manage more looms.28 The associated lower labor costs and higher production capability added to the cost-saving advantage of rayon over silk. By 1928, more than one hundred factories were producing rayon threads.29

24 Harshbarger, “Wright Aeronautical Co.,” ID #480898480, page 7. The Wright Aeronautical building is still extant outside of the Paterson Great Falls National Historical Park boundary (see Appendix C for 2102 site forms and Appendix D for 2017 NHL Resource Inventory).
28 Wallerstein, “Voices from the Paterson Silk Mills.”
Figure 84: 1915 Atlas map detail and 1931 Sanborn map detail showing lots occupied by Wright Aeronautical
(Harshbarger “Wright Aeronautical Co.” survey form)
In Paterson, only a few silk mill operators moved to adopt rayon production, in part because the slower silk looms were uneconomical for rayon production. Wallerstein noted two companies conducting rayon weaving operations and three dying operations in 1927. Among those, Irving Brawer recalled his father’s company, Brawer Brothers (a silk weaving and throwing company), experimenting with dyeing rayon as early as 1921. J. Rosen & Sons (ribbon makers) reportedly “did experimental work for Du Pont” and Edward Bloom “devoted part of his large and diversified operation to weaving rayon.” In his 1929 Rayon Industry report, M. H. Avram identified the Rosland Corporation of Paterson producing small amounts of rayon thread in 1928.

Silk production continued to dominate the Paterson industrial landscape through the 1920s, much of it through the efforts of Jewish immigrants from the western region of the former Russian Empire (Poland and Belorussia). Early twentieth-century ethnic violence against Jews in the textile cities of Lodz and Bialystok prompted a new wave of Jewish immigrants, many of them skilled weavers. They passed through Ellis Island to begin a new life in the silk mills of Paterson. Though some left Paterson after the silk strikes, many

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30 Wallerstein, “Voices from the Paterson Silk Mills.” The J. Rosen & Son building is still extant outside of the Paterson Great Falls National Historical Park boundary (see Appendix C for 2102 site forms and Appendix D for 2017 NHL Resource Inventory)

returned as the demand for silk returned during the war. Charles Shriner, who compiled William Nelson’s *History of Paterson*, published in 1920, remarked on the new business plan emerging in the Silk City:

> Of late years the number of small silk manufacturers has increased enormously. The manufacturers of looms generally extend long credits and consequently little capital is required to purchase a single loom. Raw silk is almost always sold on a promise to pay in the future. Thousands of silk weavers, especially recent immigrants, have taken advantage of this state of affairs.32

With many of the large silk mills vacant because of previous corporate moves to Pennsylvania, the Jewish weavers seized the entrepreneurial opportunity. In the 1990s, local historian Jan Wallerstein interviewed people from the Paterson Jewish community who recalled the city’s silk manufactures of the early twentieth century. Wallerstein notes that of the 400 silk manufacturers listed in 1918, the majority were small “two- and three-loom” operations owned by Jewish families. Some “mills” operated in the basement of the family home, while many others rented small partitioned areas within the large, former single-operator mill buildings.33 Paterson, according to Wallerstein, was unique in the US silk industry “with its profusion of tiny units,”

> In the late 1920s, while producing 14 percent of all silk products in the country, Paterson was home to 42 percent of all American silk shops. There was nothing like Paterson anywhere, except, apparently, in turn-of-the-century Lodz and Bialystok, from which, conceivably, Paterson derived its distinctive fragmented pattern.34

Many of these small weaving shops survived the downturn in the economy after the Great War, and by 1927, the *Biennial Census of Manufactures* listed Paterson with 704 silk establishments.35 Even a large number of small silk shops however, could not mitigate the loss in silk production and employment in Paterson as the larger companies moved elsewhere. By the late 1920s, Paterson silk industries employed around 16,000 people—down from a high of 25,000.36

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33 These were often called “cockroach mills,” referring to the large number of small weaving shops that might disappear as quickly as they appeared.

34 Wallerstein, “Voices from the Paterson Silk Mills.”


The 1927 *Biennial Census of Manufactures* showed that silk production in the United States was in decline, with fewer mills operating overall compared to 1925.\(^{37}\) Pennsylvania now led New Jersey in silk production, both in pounds and in value, in every category of silk products. Paterson, however, was still the capital of silk textile printing. The first decades of the twentieth century saw a push toward consolidation of the smaller printing establishments, in contrast to the proliferation of small silk weaving shops in Paterson. The National Silk Dyeing Company, for example, formed in 1908 from six companies, five of them located in Paterson. The consolidated firms included “Auger & Simon Silk Dyeing Company (of Paterson and Williamsport, Pennsylvania), the Lotte Brothers Company (of Allentown, Pennsylvania) and the Emil Geering Silk Dyeing Company, the Gaede Silk Dyeing Company, the Kearns Brothers Silk Dyeing Company and the Knipscher and Maass Silk Dyeing Company (all based in Paterson).”\(^{38}\) By 1913, the large Weidmann Silk Dyeing Company of Paterson and the United Piece Dye Works, composed of Boettger

\(^{37}\) *Biennial Census of Manufactures* 1927, 333–338. In 1925, US silk production reached its peak at 1,659 mills; in 1927, that number had fallen to 1,648 mills.

Piece Dye Works (Paterson) and Alexander Dye Works (Lodi), were both “substantially controlled by the ‘Gillett Brothers’ organization.”

The Standard Silk Dyeing Company, incorporated in 1907 by the brothers George, William, and Charles Cole, was not a consolidation of companies, though the brothers brought experience from work in both the Weidmann and Knipscher & Maass shops. In 1925, the Standard Silk Dyeing Company already occupied Passaic Mill No. 1 and much of the Waverly Mill, both located on Van Houten St. along the Lower Race (today’s ATP site), as they embarked on a major expansion. Within two years the company was described as “one of the largest independent silk dyeing establishments in the country.” Standard Silk continued its expansion and consolidation, first with the purchase of the adjoining former Knipscher & Maass complex, and later “by linking of buildings and the construction of large boiler plants on the Mallory Mill and the Passaic Mill lots.” However, the death of George Cole shortly after this expansion apparently marked the beginning of a decline in the company’s performance. Though the company continued to operate into the 1930s, hard economic times would close its doors, along with many others in Paterson.

Hinchliffe Stadium and the Great Depression

The economic expansion of the 1920s was founded on the financial principles established by Alexander Hamilton in the 1790s: public debt; banking institutions; manufacturing and commercial corporations; and at the center, the New York Stock Exchange, where traders bet on the value of all the above, and traded on the products of American agriculture. It was (and is) an elegant and dangerous dance which resulted in great financial gains, as well as infamous losses (William Duer for example); it made the United States a world economic power, and was the cause of devastating economic “panics” which swept the nation periodically.

On October 28, 1929, the US Stock Market crashed. The resulting catastrophic losses among investors, as well as a series of bank failures across the United States, caused a severe contraction of the US economy. As available credit dried up and consumers turned away from purchasing new items like automobiles and even clothing, factories and retail outlets reduced their workforces and the ranks of the unemployed in the United States grew to unprecedented numbers. What started as a recession soon deepened into the Great Depression.

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39 Hunter Research, *ATP CR Study, Vol. I, Factories Below the Falls*, 3.51. The extant sites of these mills are located within the park boundary (today’s ATP site). The Weidmann Co. building is extant outside the Paterson Great Falls National Historical Park boundary (see Appendix D for 2012 site form and Appendix E for 2017 NHL Resource Inventory).


Depression, which lasted through the 1930s. Efforts by then-President Herbert Hoover to address the deepening depression failed. In 1932, Hoover lost his bid for re-election to Franklin Delano Roosevelt. Within the first 100 days of his presidency, President Roosevelt pushed through his “New Deal,” including dramatic changes to the US financial system and recovery programs which would finally help turn the economy around.42

The Great Depression had a profound effect on Paterson, its industries, and its people. In 1929, census records show 915 manufacturing establishments in the city; by 1933, that number had fallen to 568. The average number of wage earners fell by more than 12,000, from 32,686 employed workers in 1929 to 20,160 in 1933. Wages plummeted from just over $44 million to $17.5 million, while the value of products from Paterson industries fell from nearly $200 million in 1929 to just over $67 million in 1933.43 The textile mills, as


the largest employer in Paterson, displaced the largest number of workers during the Depression. These men and women represented more than thirty percent of the people listed on the relief rolls in 1934. African Americans fared worst of all although only two percent of the overall population, more than ten percent of those listed on relief were African American.  

Attempts to relieve the unemployed and destitute population of Paterson came first in 1931 through private charities and city projects. Among the city’s earliest projects was the development of “Great Falls Park.” It was located on the land formerly occupied by Forest Garden and the Passaic Water Company’s Lower Reservoir. The water company’s Pump House (still extant) continued to occupy the tract overlooking the Great Falls. Early in the century, the reservoir was drained and the land leased to E. Schumacher Properties.

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45 Clarke et al., *Vista Park Master Plan*, 26–27.
for a “Casino & Amusement Park,” which included a dancehall, casino, and bar, a roller-coaster, and a merry-go-round. In 1916, the S.U.M. purchased the tract from the water company, and by 1930, at the time of the city’s purchase of the tract from the S.U.M., the amusement park was gone. “Great Falls Park” provided renewed public access to the Great Falls overlook area and may have included a tennis court and possibly some other playground equipment. It appears that this land purchase may also have been in anticipation of another, larger stadium project still in its planning stages.

Figure 89: Detail from 1932 aerial photo showing park equipment (Paterson Museum)
The City Municipal Stadium was a project long in the making. As early as 1921, then-mayor Frank Van Noort hatched a plan to construct a city stadium. Nothing came of the suggestion at the time and it was seven years before the idea surfaced again. In 1928, newly elected mayor Raymond Newman promised to appoint a stadium committee, but he died suddenly before he could follow through. In October 1930, with the city in the throes of the Great Depression, Mayor John V. Hinchliffe announced the selection of Monument Heights for the site of the proposed stadium. The Olmsted Brothers landscape architecture firm prepared two stadium designs to fit the somewhat awkward space, in part defined by the remnant depression of the former Lower Reservoir.

Construction began in 1931 and completed in 1932, at a cost of $217,000 (covered by a city bond issue). The construction of the City Stadium served as a local relief program, providing employment for many of the city’s unemployed. Later improvements were completed under several of President Roosevelt’s “New Deal” alphabet programs.

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46 This area runs from the Great Falls overlook at Mary Ellen Kramer Park and Hinchliffe Stadium, to today’s (2019) Vista Park.

(so-called because they were commonly known by their acronyms), providing another round of temporary employment. Civil Works Administration (CWA) and Emergency Relief Administration (ERA) programs funded stadium repairs and additions in 1933 and 1934. In 1936, the Public Works Administration (PWA) funded construction of a roof over the northwest bleacher section.  

Figure 91: Hinchliffe Stadium, 1932 (Paterson Museum)

After its 1932 completion, the first event was a three-day July celebration of George Washington’s 200th birthday. On July 24, the first baseball game played at the stadium pitted the Paterson Professionals, a semi-pro team, against the Michigan House of David, a professional barnstorming team. August marked the first Negro professional baseball event, featuring Atlantic City’s Bacharach Giants with John Henry “Pop” Lloyd at shortstop, playing his final season. The next day, a double-header featured the Negro professional team the New York Cuban Stars against the semi-pro Paterson Truckers. The formal opening of the stadium in September 1932 featured the State Championship track and field meet. A dedication ceremony followed at which the stadium was given its official name, “Hinchliffe City Stadium,” honoring both the then-current Mayor John V. Hinchliffe and his father, former Mayor John Hinchliffe. The 1932 season ended with the city’s annual

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Thanksgiving Day football game between the two high schools, Eastside and Central, at which 11,000 spectators reportedly filled the stands.⁴⁹ In 1933, Mayor Hinchliffe called the stadium “one of the major accomplishments of the administration,” saying “I appreciate far more the completion under my administration of a permanent and modern playfield for the physical advancement of our young men and young women and for the entertainment of all who take an interest in athletic sports and physical training.”⁵⁰ Though he did not mention it in his remarks, Mayor Hinchliffe’s project also provided much-needed financial relief for the men employed in the stadium’s construction.

In the end, the stadium’s most lasting effect came from its entertainment value. In June 1932, the city transferred ownership of the facility to the Board of Education, overseen by a stadium commission. While the stadium would serve as a venue for high school football, baseball, and track and field events, the city needed receipts from semi-professional and professional sports—particularly baseball—to pay the cost of the facility’s construction. Hinchliffe Stadium thus was available for relatively low cost (compared to larger venues like Yankee Stadium) at a time when Negro League baseball needed affordable home fields. The stadium served as the home field variously from 1932 to 1944 for Negro National League teams—the New York Black Yankees, the New York Cubans (Cuban Stars), and the Newark Eagles.⁵¹ The field hosted such baseball greats as “Pop” Lloyd, Josh Gibson, Raleigh “Biz” Mackey, Oscar Charleston, Raymond Emmet Dandridge, Martin Dihigo, Buck Leonard, Willie Wells, George “Mule” Suttles, Leon Day, James “Cool Papa” Bell, Larry Doby, and Monte Irvin, all of whom were later inducted into the National Baseball Hall of Fame. Larry Doby, who also played high school football at Hinchliffe, and Monte Irvin are said to have been scouted during play at Hinchliffe Stadium. Other professional or semi-professional sports, including boxing, motorcycle and midget-car racing, as well as musical entertainments were featured on the field at Hinchliffe Stadium.⁵²

Given Paterson’s relatively small African American population in the 1930s, it is likely that a mixed audience attended the Negro League baseball games, including black fans from Paterson, New York City, and Newark, as well as Paterson’s white baseball fans. Both of Paterson’s white-owned daily newspapers, *Paterson Morning Call* and *Paterson Evening News*, covered the Negro League games at Hinchliffe Stadium, including box scores. In 1937, attendance at games fell, in part owing to a renewed economic downturn. A brief upturn in ticket sales in 1940 was followed by declining crowds until Negro League

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baseball ended at the stadium in 1944. It was a reflection of changing economics and demographics stemming from World War II.

World War II and Paterson Industry

In September 1939, Europe once again faced a war which engulfed nations connected by allegiances forged during the First World War. For the first two years of World War II, the familiar allies of Britain, France, and Russia again fought German aggression, this time under the fascist regime of Adolf Hitler, while US industry geared up to supply the military’s needs. On December 7, 1941, Japan, allied with Germany and Italy launched an air attack on US Navy ships and aircraft at Pearl Harbor. The next day, the United States declared war against Japan and in response, Japan’s allies Germany and Italy, declared war on the United States. By the close of 1941, the United States was fully engaged in World War II.54


In Paterson, the Curtiss-Wright Corporation and Allied Textile Printing would both play a key role in the renewed war effort. Wartime employment by these two companies in particular improved the outlook for Paterson workers. Additionally, as government contractors, both were held to the new federal standard for hiring African American laborers. President Roosevelt’s Executive Order 8802 stated: “there shall be no discrimination in the employment of workers in defense industries or Government because of race, creed, color, or national origin…” By 1940, Paterson’s black inhabitants had grown to more than 4,200 representing just over three percent of the city’s total population of 139,600. By 1950, that number nearly doubled, likely owing to wartime employment opportunities, while the white population actually fell by more than 4,000. As a large number of working-age men were called to military duty, African Americans and women filled the positions left vacant across all American industries.

The wartime cutoff of raw silk supplies from Asia crippled Paterson’s already struggling silk industries. However, Allied Textile Printing (ATP), a company formed in 1938 by a merger of as many as a dozen small to mid-sized silk printing operations in Paterson, found a niche in wartime supplies, producing nylon parachutes. The DuPont Company developed nylon, “the first commercially viable synthetic fiber,” introduced in 1938 targeting the hosiery market. The timing of nylon’s release, however, came just in time to serve as a viable replacement for silk during the war. Though Allied Textile was a printing and finishing operation, the part of the Paterson plant located adjoining the Standard Silk Dyeing facilities on Van Houten St. took on production of military parachutes and straps made with nylon thread. In a time of rationing by the federal government of fuel and materials, government contracts ensured the company’s access to both. The shortage of silk material for civilian production presumably led Allied Textile to focus its dyeing operations on other textiles, including cotton and rayon, which also were among their pre-war products. The ATP facility continued to operate in Paterson until 1982 when the plant closed permanently. Its campus on Van Houten St. eventually encompassed and integrated the buildings of Knipscher & Maass, the former Colt Gun Mill, Mallory Mill, Waverly Mill, and Todd Mill. A 1983 fire left only the burned remains of this campus, now known today (2019) as the “ATP site.”

The Curtiss-Wright Corporation was a significant industry supporting the United States and its allies during World War II and thus had a major positive effect on employment in Paterson. The company doubled its Paterson production capabilities between 1939 and 1941 and built a second factory in Wood-Ridge, southeast of Paterson, to keep up with demand for military aircraft engines:

In 1940, Curtiss-Wright introduced the famous P-40 War Hawk, which through December, 1944 was to have a production run of 13,738 planes and serve with distinction in the Air Forces of 28 nations during World War II. Curtiss-Wright’s aggregate war score: 142,840 aircraft engines; 146,468 electric propellers; 29,269 airplanes which included the Curtiss Commando transport and the Navy dive bomber, the Helldiver.62

Curtiss-Wright reportedly employed as many as 17,000 Paterson workers during the war.63 After the war ended in 1945, Curtiss-Wright moved to its newer facility in Wood-Ridge, selling the Paterson plant in 1950. The loss of this large industrial employer was a blow to the City of Paterson. By 1950, the total number of people employed by the remaining Paterson industries was just under 34,000.64

The End of the S.U.M.

Though its original purpose for distributing waterpower was a distant memory, the S.U.M. retained its relevancy and profitability through the years by mill lot leases and its steam and electric power distribution network. However, the removals and failures of the various industries upon which the S.U.M. depended for its livelihood took a toll through the 1920s and the Great Depression of the 1930s. Immediately after the conclusion of World War II, the S.U.M. sold its assets (land and buildings) to the City of Paterson. The city leased the hydroelectric plant (still extant) to the Public Service Corporation (later Public Service Electric & Gas or PSE&G) to continue providing electric power to the city’s remaining industries. The plant closed in 1969 when PSE&G did not renew its lease.65

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64 Owusu, “Economic Transition in the City of Paterson,” 4, Table 3.
Conclusion

The first half of the twentieth century, with its steady exodus of industry from the city, proved to be a dizzying ride of ups and downs for Paterson’s diverse community of industrial laborers. After a remarkable rise through the nineteenth century, in which the city’s population seemed to nearly double every ten years, by 1950 the trend had reversed. From 1940 to 1950, Paterson’s population fell for the first time since the 1800 census. Whites of various ethnicities were leaving the city at alarming rates, reduced over the decade by nearly 5,000, while at the same time 4,000 African Americans moved into the city. At a time of relatively high unemployment in Paterson, the influx of new residents put a strain on city services. According to the 1960 census, the white exodus from Paterson continued, dropping by an additional 8,000-plus people to 122,300. Again, African Americans were coming into Paterson at an increasing rate, this time growing in population from 8,000 in 1950 to 21,000 in 1960. While the total population of Paterson had increased to over 143,000 in 1960, the number of employed persons fell to under 30,000. Paterson and its industrial core were in distress.

66 “Historical Census Statistics On Population Totals by Race, 1790 to 1990.”
67 Owusu, “Economic Transition in the City of Paterson,” 4, Table 3.
CHAPTER 7

EPILOGUE—
INDUSTRIAL COLLAPSE, ENVIRONMENT, DECAY, AND HOPE FOR THE FUTURE

...the vision centered around the use of the gift of nature, the Great Falls, as an inspiration to enhance the surrounding area, to build industry and jobs, attract visitors and new users to the area and buildings, and to build pride and vitality throughout Paterson and its neighborhoods.

—Frank J. Blesso, 1993

Introduction

Paterson today (2019) is a post-industrial city still working to find its place within the twenty-first century American economy. The city’s industrial past lurks among the vacant factories, some little more than skeletons, destroyed by fire or neglect. Others were demolished, leaving gaping holes in the streetscape and brownfield contamination. Pollution from the historic industries and from modern carelessness and runoff affects the Passaic River as well. Despair from high unemployment is evident in the extensive graffiti, signs of homeless camps, trash, and empty storefronts. Still, there is a sense of hope for the future. A number of Paterson’s historic mill buildings are re-occupied, housing condominiums, offices, and commercial businesses. Environmental groups are actively working to restore the river, while the Great Falls continues to attract visitors. The city’s legacy of diversity endures, today representing a wide mix of ethnicities. Though most industry is gone, enterprising small businesses have cropped up, catering to a variety of cultural interests, including Peruvian and Middle Eastern foods.

Paterson’s industrial resources, its raceways, mills, and machine shops, entwined with the natural beauty and power of the Passaic River and Great Falls, were the city’s genesis and lifeblood for more than 150 years. Much like the rejuvenated Paterson of the early 1800s, those resources may again be the catalyst for renewal and reinvention.

Preservation and heritage tourism are important modern tools for community improvement. Efforts to preserve the area around the Great Falls began locally in the 1960s. However, the 2011 opening of the Paterson Great Falls National Historical Park instilled a renewed sense of possibility for a thriving Paterson. City, county, state, and national partnerships, both public and private, aimed at restoration and interpretation, adaptive reuse, environmental conservation, and community development, hope to reverse the tide of decay and put Paterson on a productive course for the future.

**Decline of Industry:**
**Paterson through the Second Half of the Twentieth Century**

The population decrease in Paterson which began around 1950 reflected a general decline in manufacturing in the Northeast and Mid-Atlantic states. This post-war change followed the trend established before the war of industry relocations to the South and Midwest where land and labor were significantly cheaper. Additionally, the manufacturers who remained in the region moved their operations outside the cities in the 1960s, to more-spacious suburban sites which offered lower taxes and better access to improved transportation infrastructure.² Beginning in the 1970s, American manufacturing, particularly the textile and steel industries, moved operations to emerging industrial nations in Asia and South America.

In Paterson, where textile production still led the city’s employment numbers in 1950, the downward trend accelerated over the next decades: Between 1950 and 1975, the city lost 40% of its manufacturing jobs and more than half of the 1975 base between 1975 and 1997. The transportation, finance, retail, and trade sectors also showed significant declines between 1975 and 1997.³ However, population numbers for Paterson over the same period did not reflect the steady declines in employment opportunities. In fact, the total population fluctuated, rising from 139,000 in 1950 to more than 144,000 in 1970 and dropping again by 1980 to 137,000.⁴ These changes were largely because of African American and Hispanic migrations into the city while at the same time whites were moving out to suburban locations.

⁴ Gibson and Jung, “Historic Census Statistics on Population Totals By Race, 1790 to 1990,” Table 31. Other US industrial cities saw even more dramatic drops in population totals (and larger percentages of their overall population) over the same period: Detroit, Michigan went from over 800,000 in 1950 to just over 200,000 in 1980 (Table 23); Cleveland, Ohio fell from more than 900,000 in 1950 to under 600,000 in 1980 (Table 36); Camden, New Jersey, lost approximately 40,000 people and Newark, New Jersey, lost over 100,000 over the three decades (Table 31).
In the 1970s, ATP still employed several hundred people in its shops between Van Houten Street and the Passaic River. The company remained in operation in at least one building until 1982. The next year a devastating fire damaged many of the associated buildings. A plan by the Paterson Renaissance Organization to restore and reuse the buildings failed to materialize and the property stood abandoned. In 1992, the City of Paterson took ownership of the seven-acre parcel in a foreclosure proceeding. The overgrown ruins became a homeless camp for many of Paterson’s unemployed and more than twelve fires have since occurred on the property.

Figure 93: Remnant of the former Colt Gun Mill (photo by the author, 2018)

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Figure 94: Interior view of the former Colt Gun Mill (photo by the author, 2018)

Figure 95: Ruin of former Standard Printing Co. building, ATP site (photo by the author, 2018)
Figure 96: Interior of former Standard Printing Co. building, ATP site (photo by the author, 2018)

Figure 97: Graffiti covered stone wall remnant, possibly part of John Ryle Dye House, ATP site (photo by the author, 2018)
The burned-out site of the ATP buildings is an extreme example of what remains on the ground after industry leaves a city. Managing derelict industrial sites like the ATP ruins, demolished factory sites, even abandoned factories still standing, is complicated by pollution from historic manufacturing waste and debris. The US Environmental Protection Agency (EPA) defines these sites as “brownfields”: “A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”\(^7\) The federally supported grant fund aimed at cleaning up brownfields is seen as a revitalization program, “by funding environmental assessment, cleanup, and job training activities.” This is particularly important, as many brownfields are located in disadvantaged communities of color—largely the result of decades of the flight of industry and white populations from city centers.

The same environmental forces affect the Passaic River and are widely reported on in local and national media. While much of the current industrial contamination is concentrated below Paterson in the area of Newark, residual pollution remains around the Great Falls. In a 2010 report called “The Dirty Truth About That Other Jersey Shore,” National Public Radio (NPR) reporter Art Silverman toured the Passaic River from its headwaters to the Newark Bay. At Totowa, Silverman met a man fishing in the river, but noted, “There’s a ban on eating fish from the lower Passaic River.” At Paterson, Silverman’s guide pointed

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out the “rippling sewage froth on the surface of the water” below the Great Falls. In the same 2010 report, Dr. Kirk Barrett, then-director of the Passaic River Institute, detailed the chemicals and heavy metals he observed in the Passaic waters at Dundee Dam, about ten miles below Paterson, including “mercury, lead, PCBs, arsenic, DDT, polyaromatic hydrocarbons, dibenzofuran, naprocin(ph), benzopyrene, tryline, fluorescein(ph), fluorine, napromine.” Today (2019) the primary focus for clean-up in the Passaic River is the seventeen-mile stretch below Dundee Dam to the Newark Bay, a Superfund site where dioxins from the production of Agent Orange in the 1960s still pollute the river sediments.

Figure 99: Knipscher & Maass Silk Dyeing Company, showing wastewater flowing into the over-used river. 
(Paterson Historic Preservation Commission)

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9 “The Dirty Truth About That Other Jersey Shore.”

Community Efforts to Improve Paterson

Despite its many challenges, Paterson is not all gloom and doom. A large number of the historic mills and other industrial buildings remain standing throughout the city, and in particular, within the Great Falls/S.U.M. National Historic Landmark District (see Appendices D and E), many of them are rehabilitated and re-occupied. This is largely the result of efforts begun in the 1960s to preserve Paterson’s important natural and industrial history at a time when federal urban renewal projects often left cities scarred and fractured. Frank Blesso, employed in Paterson’s Redevelopment Office at the time, summarized the significance of these early efforts in preservation: “Their success forestalled destruction by a planned highway of the earliest industrial complex in the United States and thereby provided a publicly supported and sustainable alternative to urban renewal by fiat.”

It was the combined efforts of Mary Ellen Kramer (wife of Paterson’s then-Mayor Pat Kramer), new city assistant engineer Frank Blesso, and Columbia University graduate architecture student John Young which defeated the so-called peripheral highway proposed by NJDOT in 1960s. The highway, officially known as Route 20, would have destroyed much of the raceway system and many historic mills. It was designed to connect the Paterson business district with the new Interstate Route 80 then under construction. Route 20 was still in its planning stages, but the Paterson business community supported the plan and it was one of Mayor Kramer’s key campaign promises. As John Young and his fellow students recorded the historic industrial architecture of Paterson, Young realized the significance of what he saw:

John Young’s Master’s thesis “A Proposal for Paterson” helped raise the awareness of Mary Ellen Kramer, Frank Blesso and others to the rich treasure present in the industrial architectural fabric of Paterson. Young’s research provided the documentation for a nomination form to place the Great Falls/SUM area on the US Department of Interior’s National Register of Historic Places as an 89-acre historic district.

The district was listed on the National Register in April 1970 and immediately derailed the highway plan. Section 106 of the National Historic Preservation Act of 1966 required review of National Register-listed properties impacted by federally funded projects. According to Blesso, the Route 20 project “was to be constructed with 50% to 80% federal funding.” Although Young and his fellow advocates proposed alternatives for the peripheral highway, the state permanently tabled the Route 20 plan.

The energized group then formed the Great Falls Committee and in 1971 incorporated as the Great Falls Development Corporation (GFDC), out of which several important projects issued. Among those projects was the clean-up and dedication of Great Falls Park above the Falls, formerly part of the Forest Garden property and the Waterworks. Appropriately, the public park provided an area of natural respite to Paterson citizens and reopened public access across the iron bridge over the Falls. The park was later renamed Mary Ellen Kramer Park to honor the work of Paterson’s first lady.

As general recognition of Paterson’s historic and natural resources grew through its many national designations—National Natural Landmark (1967/1984), Historic American Engineering Record (1973), National Historic Landmark (1976/1985), National Civil and Mechanical Engineering Landmark (1977) (see Introduction and Appendix G for details)—fundraising and consciousness-raising efforts paid off. In 1974, the former S.U.M. Hydroelectric Plant, still closed under then-owner PSE&G, was returned to city ownership and restored, providing hydroelectric energy to 10,000 Paterson homes. In the late 1970s, an Economic Development Administration Title IX grant funded rehabilitation of the Essex Mill, Phoenix Mill, and Franklin Mill for mixed residential and commercial uses. Under the same grant, the Rogers Erecting Shop was restored to house the Paterson Museum on the ground floor and offices above. From 1977 and 1982, the S.U.M. raceways underwent archeological review and the Upper Raceway, Upper Tailrace, and Ivanhoe Wheelhouse basin were rehabilitated. The city established the Paterson Historic Preservation Commission to protect and promote Paterson’s historic buildings.

In 1998, the City of Paterson, owner of the ATP site after the 1992 foreclosure, approved a housing development on the site. The plan failed by 2001, prevented by community action and problems inherent with developing a historic industrial site, ending finally with the loss of state housing funds. Again, the site sat essentially abandoned by all but the homeless, until the 2002 murder of a homeless person at a camp near the river. City, state, and federal agencies responded by preparing a public-private agreement to study potential appropriate uses for the site, resulting in the 2010 multi-volume architectural and archeological report entitled, Cultural Resource Investigation of the Allied Textile Printing Site, Paterson, NJ. 

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State and Federal-Level Efforts

As early as 1991, New Jersey Representative Robert A. Roe introduced a bill in the US Congress to establish the Great Falls Historic District Commission. The purpose of the commission was “to prepare a plan for the preservation, interpretation, development, and use, by public and private entities, of the historic, cultural, and architectural resources of the Great Falls of Passaic/S.U.M. National Historic District in the City of Paterson, State of New Jersey.”\(^{17}\) The nine-member commission was to include four US Cabinet Secretaries, the Director of the NPS, and four city, county, and state appointees. The bill died in committee. In 1996, Congress passed an Omnibus Parks and Public Lands Management Act, which identified the Great Falls Historic District for Department of the Interior grants (with a fifty percent match) through cooperative agreements for development plans, restoration, preservation, and interpretation of historic resources within the Historic District.\(^{18}\) Five years later, in 2001, then-Representative Bill Pascrell sponsored legislation requiring the Secretary of the Interior “to study the suitability and feasibility of designating the Great Falls Historic District in Paterson, New Jersey, as a unit of the National Park System.”\(^{19}\) It became Public Law No. 107-59 in November 2001 and the next year the department initiated the “Special Resource Study.”

In the meantime, in 2004, the state of New Jersey created Great Falls State Park, encompassing the raceway system and the historic industrial district. State funds provided additional restorative work on the raceways to address water leakage problems.\(^{20}\) Plans were drawn up to create the “Outdoor Living Room,” a multi-dimensional park around both sides of the river and Falls, in which different sections of the park offered different cultural and environmental experiences.\(^{21}\) The plan, however, was never implemented and the state apparently never took ownership of any of the property.

It was around the time of the 2004 Great Falls State Park designation that the National Park Service (NPS) “Special Resource Study” was completed. The study concluded that the Paterson district did “not meet criteria for suitability, feasibility, or need for NPS management,” citing its recent state park status as reason to be assured of its


\(^{18}\) Public Law 104-333, November 12, 1996, 110 STAT. 4158 (see Appendix H).


\(^{20}\) Lee, “Raceway Research and Documentation,” 11.

continued preservation.\textsuperscript{22} In 2006, the entire New Jersey congressional delegation sent a letter to the Secretary of the Interior urging the establishment of a National Historical Park at Paterson, centered on the Great Falls.\textsuperscript{23} Representative Bill Pascrell, Jr. initiated legislation in 2007, and in 2009, the US Congress authorized the creation of the Great Falls National Historical Park, which officially opened in 2011. In 2014, Congress passed legislation to include Hinchliffe Stadium within the park boundary, although the stadium would remain under the ownership of Paterson Public School System.\textsuperscript{24}

Although the city of Paterson and many of its residents continue to face high unemployment and poverty, the hope of revitalization remains strong with the National Park Service now a major stakeholder in the future of Paterson. In 2009, shortly after the Paterson Great Falls National Historical Park’s authorization, Passaic County historian Edward Smyk commented in a \textit{New York Times} interview: “What a national park does is it cements the site in the public’s conscience…. Could you imagine what this would do for Paterson with the superior resources of the Park Service?”\textsuperscript{25}

As a “partnership park,” the federal government (NPS) owns only a fraction of the area and resources located within the legislated boundaries. Instead the NPS is directed by the legislation to “enter into cooperative agreements” with the owners of nationally significant resources, including city, state, and private entities. The NPS is directed to “identify, interpret, restore, and provide technical assistance for the preservation of the properties,” thus providing an avenue for federal funding to aid in the revitalization process.\textsuperscript{26} At the same time, the partner organizations provide additional visitor experiences and expand the park’s ability to interpret the variety of resources.\textsuperscript{27}

Much like the historic vision of Alexander Hamilton and his “association of adventurers,” Paterson today (2019) remains centered on the Great Falls. The vision draws on the power of the Falls to inspire and, in the words of Frank Blesso, “to build industry and jobs, attract visitors and new users to the area and buildings, and to build pride and vitality throughout Paterson and its neighborhoods.”\textsuperscript{28}

\begin{itemize}
\item \textsuperscript{22} Iolavera, et al., \textit{Great Falls Historic District, Special Resource Study}, vi.
\item \textsuperscript{23} Letter of Appeal, “Area around the Paterson Great Falls is designated to be a National Park!” \textit{Paterson Friends of the Great Falls}, \url{http://patersongreatfalls.org}.
\item \textsuperscript{26} Public Law 111–11, March 30, 2009, 123 STAT. 1185 (see Appendix F). See also, “Paterson Great Falls National Historical Park, Draft General Management Plan,” January 2016, Department of the Interior, National Park Service.
\item \textsuperscript{27} “Paterson Great Falls National Historical Park Foundation Document,” April 2018, \textit{National Park Service, Paterson Great Falls National Historical Park, New Jersey}, \url{https://www.nps.gov/pagr/getinvolved/foundation-document.htm}.
\item \textsuperscript{28} Blesso, “The Great Falls Project,” 10.
\end{itemize}
Conclusion:
Recommendations for Future Research

Time constraints on this HRS project prevented any significant archival research outside of collections currently available online (which is a substantial and continually expanding subset). However, this study draws heavily upon the remarkable number of well-researched histories of Paterson and the Society for Establishing Useful Manufactures, the authors of which accessed the documents in various archives and collections (see Bibliography, Summary of Significant Sources). As most bibliographies only include sources actually cited within the text, they are rarely a comprehensive record of associated archival collections. Thus it is recommended that a thorough list of all the associated archival collections, their locations, and their availability online (or not) be prepared to aid future archival research.

Of particular interest to many researchers are the artifact and archival collections held by partner institutions associated with Paterson Great Falls National Historical Park or collected through archeological surveys. A collections management plan should be
prepared to record and protect the items, and to enhance their interpretive use, as detailed in the GMP:

NPS and partners would work together with universities or museum organizations to document, preserve, manage and store any geologic, ethnographic, industrial or architectural artifacts recovered as a result of archeological investigations on park lands. Wherever they are located, NPS and partners would strive to manage the collections in conformity with NPS records and catalog systems. Provisions would allow for appropriate access to the collections by NPS staff and the public for their use in exhibits, interpretation, resource management and research. NPS would assist partners with identifying and assembling items and materials related to the park’s interpretive themes.29

A partnership-wide plan and database would clarify the scope of current collections and help inform future accessions.

This study addressed many of the traditional themes associated with the Great Falls of the Passaic: natural history, the rise and fall of the S.U.M., the industrial and immigrant history of Paterson, and touched upon the twentieth century history of African Americans in Paterson. Additional themes for future researchers to pursue should include the following:


2) Though women are noted as industrial laborers in Paterson factories, their various roles through the history of the city should be addressed thematically, including women as industrial workers, women within the owner/management class, and women as local business owners/workers.

3) Child labor in Paterson industry has been noted, but not deeply researched. Given the large number of children employed through much of Paterson’s industrial history, this is a significant theme which should be addressed.

4) The history of labor as it evolved in Paterson, its organization and relations with management, the difference between skilled and unskilled labor, and the connection between the changing structures of industrial work with the development of the labor movement is a theme which could constitute an entire volume on its own.

5) A context of industrial machine production, to include discussion of raw materials and processes in “machine shops” like those found in Paterson,

---

should be completed and appended to this report. Machine shops were integral to Paterson industry from its beginning in 1791, with the construction of the looms and spinning apparatus used in the S.U.M. cotton mill. It evolved through the nineteenth century into a major industry, supplying industrial textile machines, steam locomotives, and steam power equipment to manufacturers nationally and internationally.

Finally, several of the contemporary sources used in this study (Trumbull and Nelson in particular) include comprehensive lists of the industries then located in Paterson (1880s–1920), often with details of the earlier uses of the factory buildings. A database of the industrial buildings of Paterson, each with a chronological list of the industries which occupied the buildings over time, would be extremely helpful to develop a comprehensive view of the changes over time. Entries should be cross-referenced to the Sanborn Fire Insurance Company maps and other Paterson maps for visual orientation. The Paterson Historic Mill Survey (Appendix D) and the 2017 NHL Resource Inventory (Appendix E) should serve as a baseline for such a database.
APPENDICES

Appendix A: S.U.M. Prospectus and Charter .................................................. 249
Appendix B: Selected Pierre Charles L’Enfant Documents .............................. 257
Appendix C: 1891 Chart of Silk Industries .................................................... 273
Appendix D: Paterson Historic Mills Intensive Survey ................................. 277
Appendix E: 2017 NHL Cultural Resource Inventory .................................. 279
Appendix G: National Historic Landmark Documentations .......................... 295
  1967–1984 National Natural Landmark .................................................. 295
  1976 S.U.M. Great Falls Historic District .............................................. 297
  1977 National Historic Mechanical and Civil Engineering Landmark ....... 327
  1985 Great Falls Historic District Extension ...................................... 333
  2013 Hinchliffe Stadium National Historic Landmark ............................ 343
Appendix H: Paterson Great Falls National Historical Park Legislation .......... 401
APPENDIX A

S.U.M. Prospectus and Charter


*Prospectus of the Society for Establishing Useful Manufactures*

[Philadelphia, August, 1791]

The establishment of Manufactures in the United States when maturely considered will be found to be of the highest importance to their prosperity. It is an almost self evident proposition that that community which can most completely supply its own wants is in a state of the highest political perfection. And both theory and experience conspire to prove that a nation (unless from a very peculiar coincidence of circumstances) cannot possess much active wealth but as the result of extensive manufactures.

While also it is manifest that the interest of the community is deeply concerned in the progress of this species of Industry, there is as little room to doubt that the interest of individuals may equally be promoted by the pursuit of it. What is there to hinder the profitable prosecution of manufactures in this Country, when it is notorious, that, independent of impositions for the benefit of the revenue and for the encouragement of domestic enterprise—the natural commercial charges of the greater part of those which are brought from Europe amount to from fifteen to thirty per Cent—and when it is equally notorious that provisions and various kinds of raw materials are even cheaper here than in the Country from which our principal supplies come?

The dearness of labour and the want of Capital are the two great objections to the success of manufactures in the United States.

The first objection ceases to be formidable when it is recollected how prodigiously the proportion of manual labour in a variety of manufactures has been decreased by the late improvements in the construction and application of Machines—and when it is also considered to what an extent women and even children in the populous parts of the
Country may be rendered auxiliary to undertakings of this nature. It is also to be taken into calculation that emigrants may be engaged on reasonable terms in countries where labour is cheap, and brought over to the United States.

The last objection disappears in the eye of those who are aware how much may be done by a proper application of the public Debt. Here is the resource which has been hitherto wanted. And while a direction of it to this object may be made a mean of public prosperity and an instrument of profit to adventurers in the enterprise, it, at the same time, affords a prospect of an enhancement of the value of the debt; by giving it a new and additional employment and utility.

It is evident that various fabrics, under every supposed disadvantage, are in a very promising train. And that the success has not been still more considerable may be traced to very obvious causes.

Scarcely any has been undertaken upon a scale sufficiently extensive or with a due degree of system. To insure success it is desireable to be able to enter into competition with foreign fabrics in three particulars—quality, price, term of credit. To the first, workmen of equal skill is an essential ingredient. The means employed have not generally been adequate to the purpose of procuring them from abroad and those who have been procureable at home have for the most part been of an inferior class. To cheapness of price, a capital equal to the purpose of making all necessary advances, and procuring materials on the best terms is an indispensible requisite—and to the giving of Credit a Capital capable of affording a surplus beyond what is required for carrying on the business is not less indispensible. But most undertakings hitherto have been bottomed on very slender resources.

To remedy this defect an association of the Capitals of a number of Individuals is an obvious expedient—and the species of Capital which consists of the public Stock is susceptible of dispositions which will render it adequate to the end. There is good reason to expect that as far as shall be found necessary money on reasonable terms may be procured abroad upon an hypothecation of the Stock. It is presumeable that public Banks would not refuse their aid in the same way to a solid institution of so great public utility. The pecuniary aid even of Government though not to be counted upon, ought not wholly to be despaired of. And when the Stock shall have attained its due value so that no loss will attend the sale all such aids may be dispensed with. The Stock may then be turned into specie without disadvantage whenever specie is called for.

But it is easy to see that upon a good Capital in Stock an effective Credit may be raised in various ways which will answer every purpose in specie, independent of the direct expedient of borrowing.

To effect the desired association an incorporation of the adventurers must be contemplated as a mean necessary to their security. This can doubtless be obtained. There is scarcely a state which could be insensible to the advantage of being the scene of such an
undertaking. But there are reasons which strongly recommend the state of New Jersey for the purpose. It is thickly populated—provisions are there abundant and cheap. The state having scarcely any external commerce and no waste lands to be peopled can feel the impulse of no supposed interest hostile to the advancement of manufactures. Its situation seems to insure a constant friendly disposition.

The great and preliminary desideratum then is to form a sufficient capital. This it is conceived, ought not to be less than Five hundred thousand Dollars. Towards forming this capital subscriptions ought immediately to be set on foot; upon this condition that no subscriber shall be bound to pay until an Act of Incorporation shall have been obtained—for which application may be made as soon as the sums subscribed shall amount to One hundred thousand Dollars.

As soon as it is evident that a proper Capital can be formed means ought to be taken to procure from Europe skilful workmen and such machines and implements as cannot be had here in sufficient perfection. To this the existing crisis of the affairs of certain parts of Europe appears to be particularly favourable. It will not be necessary that all the requisite workmen should be brought from thence. One in the nature of a foreman for each branch may in some branches suffice. In others it may be requisite to go further and have one for each subdivision. But numbers of workmen of secondary merit may be found in the United States; and others may be quickly formed.

It is conceived that there would be a moral certainty of success in manufactories of the following articles—

1st Paper and Pasteboard
2nd Paper hangings
3rd Sail cloth and other coarse linen cloths, such as sheetings, shirtings, diaper, oznaburgs &ca.
4th The printing of Cottons and linens; and as incident to this but on a smaller scale the manufacturing of the article to be printed.
5th Womens shoes of all kinds.
6th Thread, Cotton and Worsted Stockings.
7th Pottery and Earthen Ware.
8th Chip Hats
9th Ribbands & Tapes
10th Carpets
11th Blankets
Appendix A

12th Brass and Iron wire.

13th Thread and Fringes.

It will be unnecessary to enter into the details of the execution further than to observe that the employment of the labor-saving mills and machines is particularly contemplated.

In addition to the foregoing a brewery for the supply of the manufacturers, as a primary object, may be thought of.

When application shall be made for an act of Incorporation it ought to include a request that provision may be made for incorporating the Inhabitants of the district within a certain defined limit which shall be chosen by the Company as the principal seat of their factories and a further request that the Company may have permission to institute a lottery or lotteries in each year for the term of five years for a sum or sums not exceeding in one year One hundred thousand dollars. The State of Jersey if duly sensible of its interest in the measure will not refuse encouragements of this nature.

An incorporation of this sort will be of great importance to the police of the establishment. It may also be found eligible to vest a part of the funds of the Company in the purchase of ground on which to erect necessary buildings &c. A part of this ground divided into town lots may be afterwards a source of profit to the Company.

The lottery will answer two purposes. It will give a temporary command of Money and the profit arising from it will go towards indemnifying for first unproductive efforts.

The following scheme for the organisation of the Company will probably be an eligible one—

1. The Capital of the Company as before remarked to consist of Five hundred thousand dollars, to be divided into Five thousand Shares, each share being One hundred Dollars, [The Company nevertheless to be at liberty to extend their capital to one Million of Dollars.]

2. Any person Copartnership or body politic may subscribe for as many shares as he she or they may think fit. The sums subscribed to be payable—One half in the funded six per Cent Stock, or in three per Cent Stock at two dollars for one, and the other half in deferred Stock. The payments to be in four equal parts. The first at the time of subscription, the second in six months after, the third in six months after the second, and the fourth in six months after the third. Those who prefer paying in Specie to be permitted to do so, computing the funded six per Centum at par, and the deferred according to its present value at the time of payment discounting the interest thereupon during the suspension of payment at the rate of Six per Centum per annum.

3rd. The affairs of the Company to be under the management of thirteen Directors to be chosen annually on the first Monday of October in each year by plurality of suffrages of the Stockholders. The Directors by plurality of voices to choose from
among themselves a Governor and Deputy Governor.

4th. The number of votes to which each Stockholder shall be intitled, shall be in proportion to the number of shares he shall hold that is to say one vote for each share. But neither the United States nor any State which may become a Subscriber shall be entitled to more than One hundred votes. The United States or any State nevertheless, which may subscribe for not less than One hundred Shares may appoint a Commissioner who shall have a right at all times to inspect the proceedings of the Company and the state of its affairs but without any authority to controul. Every Subscriber may vote by Attorney duly constituted.

5th. There shall be a state meeting of the Directors on every first monday of January, April, July and October at the place which is the principal seat of the Manufactory. But the Governor for the time being or any three Directors may by writing under his or their hands, directed to the other Directors and left at their respective places of abode at least fourteen days prior to the day for Meeting, or by advertisement in one public Gazette printed in the State where the Corporation shall be established and in another public Gazette printed in the City of Philadelphia, and in another public Gazette printed in the City of New York for the space of thirty days prior to the time of Meeting convene a special meeting of Directors, for the purpose of transacting business of the company.

6th. No Director shall receive any emolument unless the same shall have been allowed by the Stockholders at a General meeting. But the Directors may appoint such Officers and with such compensations as they shall think fit.

7th. Not less than seven Directors, if the Governor or Deputy Governor be not one shall constitute a Board for the transaction of business. But if the Governor or Deputy Governor be one four shall suffice. In case it should at any time happen that there are two separate meetings of five or more Directors each, but both less than a majority of the whole, one having the Governor, and the other the Deputy Governor, that at which the Governor shall be present shall be the legal one.

8th. The Directors to have power to make all Bye-laws, rules and regulations requisite for conducting the affairs of the Company.

9th. At every annual Meeting of the Stockholders for the purpose of choosing Directors the Directors shall lay before them a general state of the affairs of the Company exhibiting the amount of its Stock, Debts and Credits, the different kinds of Manufactures carried on, the number of persons employed in each and their respective compensations together with an account of profit and loss.
10th. [The persons not exceeding five in number who at any general meeting shall have next after the Directors chosen the highest number of votes for Directors shall by force thereof be a committee of Inspection and shall have a right of access to all the books of the Company and of examination into all its affairs, and shall at each succeeding meeting report all such authentic facts as shall come to their knowlege to the Stockholders for their information.] The Stockholders may [also] if they think fit at any general meeting appoint by plurality of suffrages any five of their number for the purpose of making such inquiries and investigations as they may think necessary.

11th. The Stockholders at a General meeting may annul or alter any of the Regulations established by the Directors and make such others as they may think necessary.

12th. Any Board of Directors or either of the Committees above-mentioned may at any time call a general meeting of Stockholders; giving thirty days previous notice thereof in three Gazettes, one published in the state in which the Factory shall be established another in the City of Philadelphia and another in the City of New York.

13th. Every Cashier or Treasurer of the Corporation shall before he enters upon the duties of his Office give Bond with one or more sureties to the satisfaction of the Directors for the faithful execution of his duty in a sum not less than Twenty thousand Dollars.

14th. So much of the Capital Stock of the Company as may consist of public Debts shall be placed on the Books of the Treasury of the United States in the name of the Corporation; and every Stockholder shall be entitled to a license under the Seal of the Corporation to inspect the account of the said Stock at his pleasure as far as may comport with the rules of the Treasury. This however shall not prevent the investment of the said Debt in Stock of the Bank of the United States, reserving to each Stockholder the like right of Inspection in relation to the Stock of the Company so invested.

15th. There shall be a yearly dividend of [so much of] the profits of the Company [as the Directors shall think proper] for the first five years, and after that period a half yearly dividend.

16th. The Stock of the Corporation shall be assignable and transferable according to such rules as shall be instituted in that behalf by its laws & Ordinances.

17th. The Corporation shall be at liberty to make and vend all such Articles as shall not be prohibited by law: Provided that it shall only trade in such articles as itself shall manufacture in whole or part or in such as shall be received in payment or exchange therefor. Provided nevertheless that this shall not prevent the investment of any sums paid in specie in Stock of the United States or in Bank Stock.
18. It shall be understood that a Majority of the Stockholders may at any time dissolve the Corporation; but this shall only be done at a general meeting which shall have been specially summoned for the purpose with public notice of the intent. And upon such dissolution the Directors for the time being shall be ipso facto trustees for settling all the affairs of the Corporation disposing of its effects paying its debts and dividing the surplus among the Stockholders in proportion to their respective interests in the Stock; [unless the Stockholders at a General Meeting previous to such dissolution shall have nominated other persons as trustees; in which case those persons shall be trustees for the purposes aforesaid.]

19. The Stock and other property of the Corporation to be exempt from Taxes.

The management of the Affairs of this Company will require that an Agent should be appointed to Superintend all the different works and the disposition of the Articles manufactured in conformity to the general regulations of the Directors. This Agent ought to have such a compensation as will command the services of a man every way competent and trustworthy. Such a man may doubtless be found. It is not necessary that he should be a technical man in any of the branches of manufacture; but a man of information, thoroughly a man of business, of probity, and diligence and energy.

We the Subscribers for ourselves respectively and not one for the other and for our respective heirs, executors and administrators do severally covenant promise and agree to and with each other and with the heirs Executors and Administrators of each other that we will respectively contribute and pay in the manner and at the times specified in the plan hereunto annexed the respective sums against our respective names hereunder set for the purpose of establishing a company for carrying on the business of manufactures in one of the States of New York New Jersey and Pennsylvania (giving a preference to New Jersey if an incorporation can be obtained from the said State on advantageous terms) according to the general principles of the plan aforesaid, but subject to such alterations as shall be agreed upon at any time previous to the obtaining an Act of Incorporation either in the principles or details thereof by the major part of us whose names are hereunto subscribed, or in the details thereof only, as shall be thought fit by the major part of the persons hereinafter named. And we do hereby jointly and severally constitute and appoint one and each of our Attornies who or the major part of them or the major part of the survivors of them are hereby empowered as soon as the sum of One hundred thousand Dollars shall be subscribed hereto to make application on our behalf to either of the States aforesaid (giving such preference as aforesaid to the State of New Jersey) for an Act or Acts of Incorporation according to the principles of the plan aforesaid with such alterations in the details thereof as shall appear to them eligible, or with such alterations whatsoever, as shall be previously
agreed upon by us; And further to take such measures at our joint expense as shall
appear to them necessary and proper for engaging workmen in the several branches of
manufacture mentioned in the said plan.

In testimony whereof We have hereunto subscribed and set our hands and seals, the
day of in the year of our Lord One thousand seven hundred and ninety One.
Selected Pierre Charles L’Enfant Documents

L’Enfant Aug1792 Plan Letter

*(Doc. #183, Passaic Co. Historical Society)*

Transcribed November 2019 by David H. Wallace

Town of Paterson August 19 1792

Gentlemen

In compliance to my engagement with your committee at their last meeting on the first Instant I have the Honor to present to you a sketch of my Ideas concerning the proposed Establishment of the town of Paterson.

Having attentively considered upon the various methods how to convey the water from above the great fall of the Passaic as might best empower the immediate exigency of the intended cotton manufactory as also to enable to the society the erection of other work—I conceive that carrying a canal across the mountain, in any of the tow way as has before been contemplated will in every respect be answerable changing however the direction first thought of and adopting a more safe methode of execution – as will here after be mentioned.

To draw the largest body of water possible to be obtained from the River and to carry the whole in security preserving the river level forming a reservory upon some situation from whence any quantity may be lead with the less possible expence were requisite this was I conceived of the utmost importance (however it may not be so very material for the coton Business) considering that the Society being to promote the establishment of all kind of usfull manufactory the interest of the concerned is in this first beginning to secure a supply of water sufficient for every purpose and to do it in a manner as may admit an increase of machinery without occasion for new canals the expence and trouble of opening which might become inconvenient besides the hazard, by multiplying them, of draining the main stream of the River which although plainty, beyond what is wanted for the business of first trial, should nevertheless be secured entire and be used with the greatest caution and economie.
How to effect this, has been the subject of my meditation, and from the idea I have been able to form in the short space of time there is I have taken a knowledge of the position chosen for the Town and for the manufactory, being made fully satisfied of the great difficulties to encounter I can not esitate expressing my opinion that the accomplishment of the business will be impossible under a management as has been suggested and I will here observe upon the danger of adopting any of the schemes or proposals that have been made to engage in the work, especially in that of opening the canal.

Upon examination of the locality of the extant over which that canal must be carried it will be found that the whole is but a mass of rocks tipped in broken pieces and in a manner Removed from their natural bed as if by a subtereanory commotion, these rock are of the hardest nature, and in some part adherent to each other with a tenacity superior to every efforts to disunite them, they lay in other part loose and movable to a great dept, and all under the mountain long there are large cavity which it is of importance to observe may greatly endanger the canal to drain or to give way throught, a circumstance inadverted in the scheme of carring a dam as had been proposed to be rised at G1 (see the map) intended to collect the water in the cove Xa for admitting that that dam would be possible to be made capable of supporting the large body of water of the dept of the cove would collect it is more than presumable that the water would notwithstanding escap by finding its way out across the hollows in the rocks bordering all round.

Having considered this inconvenient and being not that any advantage can derive from forming a basson were the excessive perpendicular height of the rocks all round will make it and the other only passage of the canal to turn that canal directly from the gap to the notch D, in the manner as expressed by the yellow lines Xa.X, which will shew the extant of walling it would require.

The other way contemplated was also to cut a canal right across from A to B passing over the cove to N.–this I conceive would prove to be the safest in the execution as by this way will be avoided much of the doubtful ground I have observed above–and every thing considered I would advise the measure altering the position of the head of the canal from A to C to the end of pointing bringing it in a better direction with the curent of the river and to bring it much lower down toward the notch at D. ---- with respect to the manner of supporting the canal over and across the cove from B to D what has been proposed is so contrary to the first principle of mechanism as to admit of no discution upon and I only recal it to mind, by way of introduction to a more safe methode and the only which I trust every man versed in the art of building would propose – I mean a proper acqueduct consisting of peers rised equidistant from each other and connected by arches carried through the whole breadth both of the canal that of the towing path and carriage way on each side–a methode much more secure than would be a solide wall thought considering the great breadth this wall would have at the top as also considering its hight, and the
proportion of its base, which would render it a mass of such monstrous size as would be impracticable to erect fairly with the wrough dry stone of the kind as that to be employed.

the large body of water to support and the consideration of the consequences of a total suspension of all the work at the manufactory can admit of no [?ing] nor will it of of any experiment not established upon a siantifique calculation of all chances --- the walls as had been proposed would (owing to the constant pressure of the large body of water [beating?] them) have been thrown down at the first trial and so will every other massi wall be endan-gered as the smallest degradation however apparently trifling proceeding from a pressure from above may ruin the whole canal to a degree impossible to prevent or remedy --- an inconvenient avoided by by the construction of an acqueduct as may be evidenced by observ-ing on the maner of its construction by detached pears and arches easily to be repaired in case of accident and besides enabling the discovery of any driping from the bottom of the canal which by issuing through an arch or an other will point out the place to repair

in changing the canal from A to C to bring it at D my object is to avail of the opening there to form a large bassoon or reseryvory from which the water may easily be distributed in due quantity by different sluices to supply the work were may be wanted, which will be effected by the tow capital [rales?] No 1 and No 2 the first leading to the coton manufactory is immediately intended and the other only proposed to be effected by succession of time as shall be found expedient -- they are bothe meant to preserve the same level of the River as far as the to reservorys --- at H and at K, which will facilitate a greater number of wheel to be set in motion by a same issue of water placing the mills one under the other all long as will admit the declivity of the ground -- from these reservorys to H K and from the tail race of the wooling mill will be formed three or four other main race or canal as at L,N,F Z of gradual fall.

As to in what manner the bed of water may be formed in all these canals mostly passing through rock as described and without gravel or clay near at hand to ceament them I cannot disguise the most delicate part of the business and the one doubtly which will require the most peine, demand the most attention, and must consume the more resources it being constant after the enquiry made of the nature of the montain that the poundering of stone beating them as has ben the methode will be first to shap with the stone the canal reseryvory &c &c giving them more breadth and more dept than necessary and afterward to carry in to it a sufficiency of clay and every material as might be made constant and are capable of seeling between the stones --- and in this manner bring the canal to a proper bredth which according to the plan I propose would be [33?] feet at the top and 7 feet at the bottom all the way from C to D making the reseryvory EE 100 waid and 10 deep --- the tow Race No 1 and No 2 should be each but one thierd the demention of the canal C-D

the shortness of the time I have had to take a knowledge of the situation --- to combine the system of conveying water as I propose --- and to satisfy myself of the practi-cability has left me to little leasure to consider about the plan of distribution for the town as
force me to confine to few general outline of the manner in which I conceive it most proper
to have it laid out --- surrounded by high montains as is the tract the Society has at disposal
I considered it as not material to observe a regular North & Sou and East & Wst direction
for the streets a matter which I apprehend would rather be improper because it would end
every street against the montain which would impede a free circulation of air the better to
be secured by determining variously the direction of the principal streets as are marked
upon the map were I have taken advantage of rising ground reserving the summit for the
erection of some public building carring the streets from thence according as the acciden-
tal opening may admit of prolonging them at a distance in measure of the town will enlarge
--- or as arrangement may be made with the owner of the land whose property the prolong-
gation of the street will increase in value
considering also of the opening of proper avenues through the internal part of the
country would be of advantage to promote the settlement of the town I have caused a line of
experiment to be drawn from Newark footing from the Bulls head tavern in a particular
direction by which the Road from New Wark to the town will be made shorter above five
miles --- I also propose bringing the roads from above the montain alog side of the canal
making them by the acqueduct proposed subsequent to the double purpose of facilitating an
entrance in the town that way avoiding the inconveniency of passing up & down the montain

a great object also for the Society should be to extend their purchase more down
ward the river and up above the fall to become possessed of as much of the land on the
other side of the River as will embrace the whole Fall
also it will be not lass important to the advancement of the work proposed to gain
possession of the little Fall clearing the navigation of the river to there and erecting lock to
bring boats from up above --- this I should imagine could be executed with but little ex-
pence and the advantage it would procure would fully compensate for it

the foregoing observations will I hope be considered as being influenced from a
wish to promote in the best of my capacity the interest of the Society which I [presume?] will
agree with me in the opinion that in work especially of the nature of the one intended
real economie is to spare neither peine nor money to insure the success and the durability
of the work

I have the honor to be
Gentlemen with respect your
most humble & obedt
servant

P E L’Enfant
to the director to the Manufactory Society

Paterson 19th August 1792
Communication from Major L’Enfant
L’Enfant August 1792 Plan as copied into the S.U.M. Directors’ Minutes


Transcribed September 2019 by Edith B. Wallace

Major L’Enfant agreeably to the request of the committee, laid before the Board, the following Report, which was read—

— to wit

Town of Paterson August 19th 1792.

Gentlemen!

In compliance to my engagement with your Committee at their last meeting on the first instant I have the honor to present to you a Sketch of my ideas concerning the proposed establishment of the Town of Paterson.—

Having attentively considered upon the various methods how to convey the water from above the great falls of the Passaic as might best answer the immediate exigency of the intended Cotton Manufactory as also to enable the Society the erection of other Works. I conceive that carrying on a Canal across the mountain in any of the two ways as had before been contemplated will in every respect be answerable, changing however the direction first thought of, and adopting a more safe method of execution, as will hereafter be mentioned.

To draw the largest body of water possible to be obtained from the River and to carry the whole in security, preserving the river level and forming a Reservoir upon some situation, from whence any quantity may be lead, with the least possible expense, where requisite, this was I conceived of the utmost importance (however it may not be so very material for the Cotton business) considering that the Society being to promote the establishment of all kind of useful Manufactures, the interest of the concerned is in this first beginning to secure a supply of Water sufficient for every purpose, and to do in a manner as may admit an increase of Machinery without occasion for new Canals, the Expense and trouble of opening which might become inconvenient, besides the hazard by multiplying them, of draining the main Stream of the River, which although plenty beyond what is wanted for the business at first Trial, should nevertheless be wholly secured, and be used with the greatest caution and economy.

How to effect this has been the subject of my meditation and from the idea I have been able to form, in the short space of time there is, I have taken a knowledge of the Position chosen for the Town and for the Manufactory, being made fully satisfied of the
great difficulties to encounter I cannot hesitate expressing my opinion that the accomplish-
ment of the business will be impossible under a management as has been suggested and I
will here observe upon the danger of adopting any of the schemes or proposals that have
been made to engage in the Work especially in that of opening the Canal.

Upon examination of the locality of the extent over which that Canal must be
carried, it will be found that the whole is but a mass of Rock heaped in broken pieces, and
in a manner removed from their natural bed as if by a subterraneous commotion.

These Rocks are of the hardest nature and in some parts adherent to each other
with a tenacity superior to every effort to disunite them, they lay in other places loose and
moveable to a great depth, and all under the mountain there are large cavities, which it is of
importance to observe may greatly endanger the Canal to drain or give way through—a
circumstance inadverted in the scheme of carrying a dam as had been proposed to be
raised at G. (see the Map) intended to collect the Water in the Cove x a, for admitting that
that dam would be possible to be made capable of supporting a large body of Water as the
depth of the Cove would collect, it is more presumable that the water would withstand-
ning escape, by finding its way out across the hollows in the Rocks bordering all round in a
way impossible to secure.

Having considered this inconvenient and being not that any advantage can derive
from forming a basin where the excessive perpendicular height of the Rocks all round will
make it inaccessible. I have thought more expedient, in case Garrison’s gap should be fixed
upon for the passage of the Canal to turn that Canal directly from the gap to the Notch D,
in the manner as expressed by the yellow lines x a x, which will show the extent of walling
it would require.

The other way contemplated was also to cut a Canal right across from A to B,
passing over the Cove to N. This I conceive would prove to be the safest in the execution as
by this way will be avoided much of the doubtful ground I have observed above, and
everything considered I would advise the measure, altering the position of the head of the
Canal from A to C to the end of bringing it in a better direction with the current of the
River and to bring it much lower down toward the notch at D. With respect to manner of
supporting the Canal over and across the Cove from B to D what has been proposed is so
contrary to the first principal of Mecanics to admit of no discussion upon and I only recall
it to mind by way of introduction to a more safe method and the only which I trust every
man versed in the art of building would propose. I mean a proper Aqueduct consisting of
Pier raised equal distance from each other and connected by Arches carried Through the
whole breadth both of the Canal that of the Towing Path and Carriage way on each side. a
method much more secure than would be a solid wall considering the great breadth this
wall would have at the top as also its height and the proportion of its base, which would
render it a mass of such monstrous size as would be impracticable to erect fairly with the
rough dry stone of the kind as that to be employed.
The large Body of water to support and the consideration of the consequence of a Total suspension of all the work at the Manufactory can admit of no trifling nor will it of any experiment not established upon a scientific calculation of all chances. The walls as had been proposed, would (owing to the constant pressure of the large Body of [water] between them) have been thrown down at the first trial and so will every other mass of wall be endangered at the smallest degradation however apparently trifling proceeding from a pressure from above may ruin the whole Canal to a degree impossible to prevent or remedy, an inconvenience avoided by the construction of an aqueduct as may be evidenced by observing on the manner of its construction by detached Pier and Arches easily to be repaired in case of accident and besides enabling the discovery of any dropping from the bottom of the Canal, which by issuing through one arch or another will point out the place to repair.

In changing the Canal from A to C to bring it at D my object is to avail of the opening there to form a large Bason or Reservoir from which the water may easily be distributed in due quantity by different sluices to supply the Work where may be wanted, which will be effected by the two capital races No. 1 and No. 2. The first leading to the Cotton Manufactory is immediately intended and the other only proposed to be effected by succession of time as shall be found expedient. They are both meant to preserve the same level of the River, as far as the two reservoirs at H and at K which will facilitate a greater number of Wheels to be set in motion by a same issue of water, placing the Mills one under the other all along as will admit, the declivity of the ground. from these reservoirs H and K and from the tail race of the working Mills will be formed three or four other main races or Canals as at L. N. F. Z. of gradual fall.

As to in what manner the bed of Water may be formed in all these Canals mostly passing through rock as described and without gravel or clay near at hand to cement them is, I cannot disguise the most delicate part of this business, and the one doubly which will require the most pains, demand the most attention and consume the most resources, it being constant, after the inquiry made of the nature of the mountain, that the Poundering of stone, beating them as has been held by some Persons a sufficient operation to retain the water, never can answer. The only method will be, first to shape with the stone, the Canal reservoir &c. &c. giving them more breadth and more depth than necessary, and afterwards to carry into it a sufficiency of clay and every material as might be made consistant, and are capable of filling betwixt the stone. And in this manner bring the Canal to a proper breadth, which according to the plan I propose would be 33 feet at the top and 7 feet at the bottom all the way from C. to D. making the reservoir EE 100 wide and 10 deep. The two races No. 1 and No. 2 should be each but one third of the dimention of the Canal C.D.

The shortness of the time I have had to take a knowledge of the situation, to combine the system of conveying water as I propose and to satisfy myself of the practicability, has left me so little leisure to consider about the plan of Distribution for the Town as
induces me to confine to a few general outlines of the manner in which I conceive it is most proper to have it laid out.–Surrounded by high mountains, as is the tract the Society has at disposal, I considered it was not material to observe a regular North and South, and East and West direction for the Streets, a method which I apprehend would rather be improper, because it would end every Street against steep mountain, which would impede free circulation of air the better to be secured by determining variously the direction of the principal Streets as are marked upon the Map, where I have taken advantage of a rising ground, reserving the summit of it for the erection of some Public Building, carrying the Streets from thence according as the accidental opening may admit of prolonging them at a distance in measure at the Town will enlarge, or as arrangement may be made with the owners of the land, whose property the prolongation of the Streets will increase in value.

Considering also as the opening of proper avenues through the internal part of the Country, would be of advantage to promote the settlement of the Town, I have caused a line of experiment to be drawn from New Ark parting from the Bulls head Tavern in a particular direction by which the road from New Ark to the Town will be made shorter above five miles. I also propose bringing the Road from above the Mountain along side of the Canal making thereby the aquaduct proposed subservient to the double purpose of facilitating an entrance in the town that way avoiding the inconvenience of passing up and down the Mountain.

A great object also for the society should be to extend their purchase more downward the River, and up above the fall, to become possessed of as much of the Land on the other side of the River as will embrace the whole fall.

Also it will be not less important to the success of the Work proposed, to gain possession of the little Fall clearing the navigation of the River to there and erecting locks to bring Boats from up above, these I should imagine could be executed with but little expense and the advantage it would procure would fully compensate for it.

The foregoing observations will I hope be considered as being Influenced from a wish to promote in the best of my Capacity the interest of the Society, whom I promise will agree with me in the opinion that in work especially of the nature of the one intended, real economy is to spare neither pains nor money to ensure the success and the durability of the Work.

I have the honor to be.–

Gentlemen

With respect
Your most humble and obed.t Serv.

P. C. L’Enfant

The Directors of the
Manufactoring Society
L’Enfant December 1792 Letter Report

(Doc. #219, Passaic Co. Historical Society)

Transcribed November 2019 by Edith B. Wallace

Paterson December 25 1792

Gentlemen - / -

the arduous tax of effecting the establishment of the town of Paterson at a season too far advanced in (after the 1st of Sept’ last) gave me now the regret of seeing winter put a stop to the operations before I have progressed them as is desirable to evince the propriety of the design in enabling your judgment of its many advantages to so vast a project required a mature deliberation and the disadvantages under which I proceeded, having had but a few days previously for to enquire into and to determine upon the proprieties of the situation is to be considered.

hurry’d to make a beginning of the work, I may say before I had had time to connect my Ideas I could have no plan sufficiently digested --- nevertheless endeavouring to accelerate the business I have attempted a display of the whole magnitude of the Entreprise conceiving this might be usfull in impressing the mind of the public with a favourable opinion of the Improvements Intended, and fearfull of a same time of waking an Inconsiderate progress I did confined the labour to a rough markation of the outlines of the plan—to prove its fitness to the ground—to study more effectually its particular—to correct the defects and bend the whole as should appear best answerable in lessening of the difficulties to make also the levelling of Impediments a mean economical for to supply the supperstruction [superstructure].

determined by these motives I have apployed [applied] the means [page 2] left at my discretion to use as I conceived most Expedient to accelerate the business, and in all what rested solely on me to Execut I hope you will be satisfied they have been managed with every possible attention to the Interest of the Society–having advanced the work much beyond to what I myself could have promised and in the short space of four mounth brought it to that state from which I now feel a confidence in assuring you here there can remain no doubt of a full attainment of your objects in the End. Expecting that by an assiduous continuance of the operations and upon the same principle as I have Engaged in them I shall be able in the course of next season to effect as much of the plan as will Enable the coton mill to be set in motion by the midle of the ansuing fall which will be as early as that mill with the machines belonging can possibly be made ready.

the building of houses I have been under necessity to delay the time being short for collecting materials sufficient to have rised them to any advantage before winter, beside I feared that a beginning of the cotages houses, previous a purchase of the ground, which I
saw a necessity to add to the tract of the Society, had been Effected, would by shewing the
Exact position for the town have rised the demand of the land holder to an Impossibility
perhaps of obtaining any --- upon the whole no more but the foundation could be laid and
seeing this Should not avoid the Expences of Erecting barracks for the accommodation of
the people of the factory, I thought most proper to employ all the means I had at command
at the reducing of the Rock and mountain on a fucces [focus?] in levelling which depend
that of the whole Entreprise–this also would determine the quantity of water possible to
procure [page 3] and made it proper I should delay fixing ultimatly upon the position for
the coton mill. - in the mean while I promised I should gain better knowledge of the Several
machines as might Enable me to conceive the necessary rooms for them, but in my
Endeavour to this effect I must Say I had to regret the seeming caution of the concerned in
the business immediate to the manufacture, which greatly Increased the difficulties I fund
[found] to accommodate matter to thier wish.

having however now been Enabled a judgment of the State of matter resting with
the three head manufactures to accomplish, I shall here proceed giving you my Ideas on the
Subject.

of all the machines to be worked by water those of the coton mill under the man-
age ment of Mr Marshall are the most forwarded–they may properly be said to be in good
train–notwithstanding the achievement of them for the time at which I shall have the
necessary building ready is not to be Expected but from an assiduous continuance of the
undivided attention of that gentleman with an additional force of hand to the number he
has had ietherto [hitherto] in Employment.

in the department of Mr Pearce what there is of machines wanting a power of water
I conceive to be similar to the above of which they only differ as to the manner of working,
from which I apprehend the [there] can be no Inconvenient in the tardiness of their
Execution–and provided I am made well acquainted with the particular to devise proper
rooms for them–I would advise as Expedient, to delay them altogether, directing Mr Pearce
attention solely upon the perfecting of a Stipulated number of those [page 4] machines
which are contrived to be worked by hand.

with respect to Mr Hall department the whole of the water machines consits in
wash wheals &c all heavy work which I am confident will not be Immediately wanted and
need not be closely attended to at present–Considering that the printing business in a great
measure is depending of the progress which shall be made in the carding–spinning and
weaving branches, and that if to be attempted in the Interim upon Imported calico &c it
cannot be immediately to that great Extant as may need of other assistance but of that of
hand machine which with a convenient streem of clear water with a hy [high] and wet
madow ground to bleach upon is all what is necessary, - this may be procured at will, but I
believe shall not be wanted soon unless through some Expedient a full compliment of
printing plates–Rollers–and other necessary utensil are procured from abroad–for if
altogether depending upon the making of them here–you must not deceive yourself upon this point, they will not, and never can be obtained of that variety nor in that number capable of answering your Expectations and without which making a beginning of the printing business would act to the discredit of the Society and would prove its ruin --- more inevitably as Mr Hall do not Intend any Experiment of proofs work but I believe Expect and with not to proceed unless at once upon a large scale and with a vast number of hands.

whether Mr Hall Ever propose to go Earnestedly in to the business has been questioned by many and not meaning here [page 5] to Inquire into the secret of his motives in many Instances when the Interest of the Society seem not to have been a consideration with him I shall only say, that beliving him to be true to his Engagements I conceive his situation most Embarassing. on another part it most [must] be considered that wanting the assistance of able Inginious artists both in the drawing of pattern and in the plate cutting way, in neither of which he professes himself to be a master, he rest that Interesting part of the business on the unskillfull management of a young apprentice and confine his secret operations to chymical pursuit for making colour the quantity of which now in readiness will be wasted by time and become useless before there has been any occasion for. in his Indeavour to kip bussy at something he thus appear in a manner forced to attempt any thing and besides a useless handling of materials he keep in Employment a number of millwright–of carpenter–of Smiths–Cooper &c Engaged about preparing those machines which I first mentioned and in the progressing of which seeing no necessity at present made me with them hands may be more usefully Employed.

generally Speaking–the work shops secluded and Every operations going on there unknown has been an Inconveniency to the advancement of the business--first because it prevented me from directing as I wished these works more effectually toward the achievement of all hand machines for which it is reasonable to Expect that accommodation will be first ready. Secondly because it created a confusion in the management of the hands Employed, som of whom were procured [page 6] by me, other being differently Enlisted and many occasionally called out of partys of which I had otherwise disposed but Every one of which while Employed about the factory beliving themselves free from any controul and Inspection made it difficult I should have regulated the movement of the whole business with that Economie of time I would other waise have done--thirdly this has Encouraged a westing [wasting] of all necessaries, because the work being not subject to an Inspection from me, what ever I could see injudiciously applied being not in my power directly to controul–it is not to be Expected the workmen would restrain as to quantity or quality of materials which it is rather presumable they wastefully used picking out the best without much concern about what might be wanted for other work for which they knew a fresh supply most [must] be procured as often as they call for.

how to remedy this I will observe is by making the machine making at the factory a same object with the one now more immediately under my care–both the machines making
and the canal business &c are necessary to be carried on in harmony to each other and it
never will unless it is made more understood than it has hither to been that I have a right fully
to Inquire and to see myself what is going on in Every shop work or laboratory making it a
rule also that no article called for be purchased or delivered there without the order has been
certified by me. In the same manner as most [must] be observed in future for all demand for
the supplying of other work. For responsibility most [must] be [page 7] placed some were
[where] and will not be well divided nor detached from that hotority [authority] without
which it would be folly in me to promise a success in the prosecution of my undertaking.

the business complicated as it appear will be but easily conducted after once
Introducing a system of management–corresponding in all the different branches, for what
Ever considerable as will be the number of mechanics or of other people Employed these will
be then easily divided in gretter or smaller parties as often of circumstances shall require–it
will then be admissible to cause all the business of one kind of description to be
Indescribinatly Executed for Every department by the same hands–which must prove much
more Economique than the present method at the factory each branch of which has now,
Smithy, carpenter &c privy to themselves and both a number of men of the same skill as has
the other–the natural consequence of which is that many able hand most often be at a stand
for want of work–at best it is propable if they are kept bussy they cannot be so to advantage
and that many atime it happen they are Employed to matter absolutely foreigne to the main
business as may be Instauled by all the house utensil made at the work shop of Mr Pearce &c
for the people setting at the Factory the quantity and variety of which most amount to a great
some of labour lost, besides the time Employed in building barrack and shops for differents
family, for whom Mr Pearce took upon himself to Erect all necessary accommodation
although some of them were not properly belonging to the Factory. his reason for so doing as
far as I understand were that he conceived himself hotorised [authorized] [page 8] to provide
for them and in a manner bound to do it by a private agreement with the Secretary Amilton
[Hamilton] in Endeavour to please whom he let his zeal cary him to far as to applay the best
of the meany at his command for the accommodation of these people and to an hinderance
of the progress of his machine making which he himself own in his account of the said that
he has done but little since he came from philadelphia–six single houses being the only thing
which he promise he may soon set up the other machines ordered by your board in october
last being out of his power to have ready before six mounth time.

now to return to an account of the business more Immediately resting with me to
accomplish–what I sayd before of the progress made in it chiefly consisting in preparatory for
a fair and Earnest prosecution of the work early in the Spring, - a view of the local state of
thing will better Explain to you the Intention of all what is done than would a comment upon
therefore I shall here Invite you on the spot promising that your recollection of the situation
as it was at the time you have pointed it out to me for Improvement will Evidence the
Earnestedness of my efforts in advancing the business. attention in no manner to deviate from the plan which you have approved considerable as may appear the undertaking, judging of it from the first attempt made it is no more but what is necessary to render the work compleat and durable as I had in my proposals Explained to you.–which may be proper here to recal to mind for the better satisfaction of [9] those amongst you Gentlemen whom have not been privy to the first of the business and whom may have heard of plans having been proposed which by far more limited were thought by some to are more oeconomical–the objections to these were the unsafe methods of the manner Intended to forme the canal required and also that this canal after completed would hardly have been answerable to supply a coton mill–and my Inducement to oppose these schems was a conviction of their imperfection and the consideration that the primary object of a coton mill once answered, the Interest of the Society would be, as its Institution require, that some more effectual measure be taken to promote the Establishment of other branches of usfull manufacture for which it was Evident that a most Superior command of water would be wanted–I saw then that this could only be obtained by securing the whole body of the upper passaick and it was Expedient this should be done from the first for to preserve the height of the level of that rivier in passing its streem over the mountain, which I Engage to do by way of a proper acqueduc the Foundation of which is already in part laid and whose object is to conduct the water at a convenient point were the mountain is about levelling and in the cavity of which is to be formed a kind of reservoir Enclosed by the walls already begun [begun] or to carry at any place of the town wen shall be wanted. ----------- the Expences attending [page 10] this project I most [must] also here observe will not be great in proportion to the Enlargment of my plan over those that had been in contemplation–because the Execution of the smaller schems would have necessitated a removal of the same obstacles which I am now levelling, therefor of what Ever gretter magnitude may be the work of the Improvements I Intend this can no way spend a much more considerable some than would have been otherwaise consumed and when considering those Improvements I am now Forwarding will be the source of an Increasing wealth to the Society the Economie of them most [must] be obvious.

the next object resting with me to accomplish was the Establishment of the town a compleat plan for which as not yet been in my power to effect having been forced to part repeatedly from different Ideas of division, owing to the difficulties approssing [?] a purchase of those lands over which I wished to pass the streets : seeing how my sollicitud for in a manner rised the Expectation of the owner who in measure of the work progressed thought themselves assured I most [must] give any price to them and subscribe to their condition for a division of lots, this determined me to abandone for awhile the Intention of Extanding the town down toward Totoway bridge and in the little I have been able to affect of the plan which I contemplate I have opened a grand street to meet the new work Road at the crotch near Com- van Ryper House which will save about a mile distance, the next I propose will be to meet in a direction with the line of Experiment for the proposed new
Road to newwark by which the distance is to be made five miles shorter—some land being yet wanted to prolong these streets with advantage to the Society I would invite you to Hotorise [authorize] the purchase of about 900 acres leaving the situation [page 11] undetermined at my option the great facility there will be after the acqueduct is completed to throw any quantity of water in Vreeland brook and the many convenient seat for mill which a fall of above 90 feet in the distance of tow miles may favourise, is an object which I submit to your consideration not doubting it will Induce you to purchase as much of the tract which has once been offered to the Society as may yet be obtained—and other consideration Inducing me to advise the measure being the great Facility I fund [found] to render the River navigable to that brook the distance being only 1 ¾ mile to the head of tide water while to make it navigable as far up as vanderbek Farm, would neccessite thee [three?] locks more and made the distance for boats, to the same tide water, 6 ¾ miles—some great Inconveniency arising in carring [carrying] one the work of the canall, on the upper passack, from the too great nearness of Henry Garrise property, and the advantage there will be to open a direct road to the little fall which most pass across that land. cannot but made it the Interest of the Society to secure much of it as can possibly be obtained as however heigh may his demand be the Society is to consider, that what could have been purchased four mounth ago for ten pound now sel more than double and that the rise of property will be in proportion of a progress shall be made in advancing the work.

Several application have been made for lots by many people Intending to build upon, several seeming also much Inclined to rent houses which perhaps would be found the most advantageous to the Society who might appropriate a special some to the purpose of building in proportion as there will be assurance of getting the proper Interest for the money. Tow [two] marchentor [merchant] store are already fixced upon the Society ground one build by Mr allstead upon a lot, the proper dimention of which cannot as yet be accertained, - the other a barack build by my direction [page 12] to accommodate a grocer—Mr adam, who had been offered a seat near opposite to Totoway bridge which I Induced him to decline, by fixing him temporarily in this barack he proposing to build for himself in the Spring or to rent a house from the Society if it can be procured.

In requesting you on consideration of the above to determine on the quantity of lots you will dispose of as also on the terms of sale I most however beg you not to be too hasty in determining upon the value of lots wishing I may before make a proper estimat of the Expence attending a proper levelling of some principals streets that this Expence may be soon repaid in sharing a proportion of the amount in adition to that of the Estimated worth of the lots.

In closing the business after the first falling weather had made it of no advantage to continue the work at the acqueduct, I have had a House build with a view to form a proper store in the lower story for the supply of small article for the work as also for the reception and storing of all product from the manufactory. The cellar being capable also of admitting of six weaving loom, which I have for severals weak past pressed Mr Pearce to make ready.
a house for a Tavern as is desirable to have to Induce the vast number of visitors which maybe Expected next year to make the town of Paterson a place of residence for part of the summer could not have been properly began in the uncertainty in which I have been of in what would be the direction of the leading avenue to the town which having now nearly determined will Enable me to make the rising of the tavern a first object in mash [March] next at which time most of the materials will be ready for to Enable having the most of the building accomplished time enough for the good season. 

____________________________

after having Entered here in particular from which you [page 13] may forme an Idea of the present state of thing at the factory and at the different works which I have attempted it remain to satisfy you on the points of the Expences which have been Incured - considerable of the sums Expended may be if you will defalcate [deduct] the amount of what relate the factory–the amount of all purchase of materials which have not been Employed and the value of the acquisition of an Excitant [extension?] of territorial to that which belonged to the Society when I first Ingaged in the business you will find the sum Expended for the work under my Immediate direction is but small in comparaison to the progress of the work done–it fall I am well assured much under what a computation of the worth of it could have bring it at had such a computation been practicable in a business in which the nature of Impediments to over come was unknown and in which consequently the labour could no way be Estimated.

the labour being a per the pay Roll Book will appear 10,260 40/100 dallor Including all hand Employed under me from the 1st of September to the 2nd of December and the whole of the materials which have been used out of the one purchased consisting of no more but about 93 Tirces [?] of lime 16496–bricks 7421 Shingles 7000 woods and a quantity of Iron for tools–N:B a pretty large deduction [page 14] may justly be made out of the pay Roll amount for the wages of the number of hand which having been Employed at about the factory as has been related could be of no service to me–also out of the quantity of bricks which I am willing to charge as used by me many thousand were applayed to the erecting of ovens and other accommodation for the people of the factory. so that I am confident not above 12000 dollors, admitting for errors in a hasty sum up of all accounts, have been Expended toward the accomplishment of the object you have trusted to my management.

I have the Honour to be respectfullly

Gentlemen

Your most obedient and

humble servant

P. Charles LEnfant

The director of the Society for Establishing usfull Manufatures.
APPENDIX C

Chart of Silk Industries, 1891

Nelson and Shriner (1920), pp. 348-350
a great change has taken place in the silk manufacturing industry since that
time. In former years, and to some extent still at present, the manufactured
silk passed into the hands of commission merchants, who sell to the whole-
sale and retail trade and almost invariably make advances to the manufac-
turer. Of late years the number of small silk manufacturers has increased
enormously. The manufacturers of looms generally extend long credits and
consequently little capital is required to purchase a single loom. Raw silk is
almost always sold on a promise to pay in the future. Thousands of silk
weavers, especially recent immigrants, have taken advantage of this state of
affairs. The method of procedure is simple: A weaver buys a loom on the
instalment plan and has it set up in his home; he and his wife work alternate
shifts, but the loom is idle very few hours, frequently very few minutes, in
the twenty-four hour day; when a piece of silk has been woven, the weaver
takes it to New York by train or trolley and sells it direct to the retailer; he
can afford to sell at a lower figure than can the manufacturer who has rent,
taxes, overhead charges and labor unions to deal with; it does not take long
before the loom is paid for. It is seldom that the weaver does not find a
ready market for his product, but should this happen, he can pawn the silk
in Paterson, where brokers are ever ready to make advances on such security.
Should the weaver receive an order from a retailer for several hundred yards
of silk to be delivered in one consignment at a certain time, he can make the
silk piece by piece and pawn it piece by piece.

**RECAPITULATION.**

<table>
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<tr>
<th>Employ-</th>
<th>Male</th>
<th>Female</th>
<th>Broad</th>
<th>Goods</th>
<th>Ribbon</th>
<th>Braiding</th>
<th>Spindles</th>
<th>Capital</th>
<th>Invested</th>
<th>Annual</th>
<th>Wages</th>
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<td>R. &amp; H. Adams</td>
<td>200</td>
<td>400</td>
<td>200</td>
<td>80</td>
<td>10,000</td>
<td>200,000</td>
<td>$150,000</td>
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<tr>
<td>*George Addy</td>
<td>4</td>
<td>12</td>
<td>60</td>
<td>15,000</td>
<td>15,000</td>
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<td>60</td>
<td>50,000</td>
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<td>50</td>
<td>45</td>
<td>30,000</td>
<td>60,000</td>
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<td>50</td>
<td>45</td>
<td>50,000</td>
<td>2,500</td>
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348 PATERSON AND ITS ENVIRONS
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| **Owners of real estate used in the manufacture of silk.**

**Totals** | 8610 | 8015 | 5710 | 2454 | 1489 | 246,703 | $13,505,800 | $13,505,800 | $7,266,750

Appendix C
Appendix D

Paterson Historic Mills Intensive Survey

Intensive-Level Survey of Paterson Industrial Mills,
New Jersey Department of Environmental Protection, Historic Preservation Office, 2012,
APPENDIX E

2017 NHL Cultural Resource Inventory Map
APPENDIX F


THE GREAT FALLS PROJECT
PATERSON, NEW JERSEY

Francis J. Blesso
August 1993

PREAMBLE

This project narrative was prepared by Francis J. Blesso in August 1993 in response to a letter from the Chrysler Award for Innovation in Design. The Chrysler Corporation nominated Mary Ellen Kramer and Francis J. Blesso of the Great Falls Committee to apply for one of six national awards under that company’s inaugural competition. Francis J. Blesso added John Young to the team and prepared the narrative and assembled the supporting exhibits. The entry was one of over 100 submitted. Although the project was not selected, the narrative provides a first-hand history of the events surrounding the first twenty-five years of the Great Falls Historic District.

On November 5, 1993 the Paterson Historic Preservation Commission presented Mary Ellen Kramer (posthumously), John Young and Francis J. Blesso with its Heritage Citizenship Award for their role in the planning and creation of the Great Falls Historic District.

Francis J. Blesso
September 2005

SUMMARY STATEMENT

Mary Ellen Kramer, John Young, Francis J. Blesso, along with the Great Falls Committee, originated and implemented a plan for the preservation and reuse of 50 historic industrial buildings and a related water-power system at the Great Falls of the Passaic River in Paterson, New Jersey. Their success forestalled destruction by a planned highway of the earliest industrial complex in the United States and thereby provided a publicly supported and sustainable alternative to urban renewal by fiat.
THE GREAT FALLS PROJECT
PATERSON, NEW JERSEY

NARRATIVE

EARLY HISTORY

When Alexander Hamilton first visited the Great Falls of the Passaic River, he not only viewed 77 feet of natural beauty, he recognized a tremendous energy source. Hamilton envisioned building the new nation's first manufacturing center as a step towards true independence. In 1791, he encouraged the creation of the Society for the Establishment of Useful Manufactures (SUM), with major help from New Jersey's Governor, William Paterson. Hamilton conceived harnessing the massive power of the falls, using it to move the water wheels of future mills. Pierre L'Enfant was hired to plan and engineer the town. The plan required substantial modification by others, but evolved over three decades into a three-tiered mile-long network of open stone-walled channels called raceways. These were used to funnel water in and out of the mills and eventually back to the river.

Paterson was incorporated on July 4, 1792, establishing itself as the Cradle of American Industry. The original cotton-based industries developed over two centuries to include the whole spectrum of manufacturing, from revolvers to locomotives and aircraft engines. But it was through textiles that the world came to know Paterson as the Silk City.

ROUTE 20 PERIPHERAL HIGHWAY

In 1966 when Lawrence "Pat" Kramer, Jr. took office as Paterson's youngest mayor, Paterson had only a few silk mills left. Its industrial base, although diversified, had declined. Downtown, which was once a thriving regional commercial center, was also in decline and suffering from the competition of highway shopping centers. Kramer began assembling a team of government professionals in finance, building inspection, public safety and urban renewal. He moved forward on his campaign promise to get control of the downtown urban renewal program and to "turn the City around."

By 1968 his team was in place and on September 20, in what was generally hailed as a major accomplishment, Kramer signed off on the 200-scale planning map for the new peripheral highway. Route 20 would intersect with Interstate 80, then under construction through Paterson. The alignment was to skirt the western and northern side of the central business district (CBD), parallel the Passaic River on its south side and connect to the existing McLean Boulevard in the City's Riverside section. City business leaders had been clamoring for improved access to the downtown since the late 1930s, when they felt they were bypassed by the plans for the Garden State Parkway. The highway design was coordinated to tie in with the proposed five-lane loop road to be constructed around the CBD under the City's urban renewal program. The New Jersey
Department of Transportation (DOT) began aggressively carrying out its land-acquisition program while the highway moved into the final design stage.

**ENTER COLUMBIA UNIVERSITY STUDENTS**

Shortly afterward, a group of architectural students from Columbia University came to Paterson to study its industrial architecture. The group met with Mary Ellen Kramer, the Mayor's wife, and began to explore, photograph and document the industrial area near the Great Falls. Mrs. Kramer introduced the group, headed by graduate student John Young, to City officials including Francis J. (Frank) Blesso in the City's Redevelopment Office. Base maps and other surveys and documents were provided to the group.

John Young's Master's thesis "A Proposal for Paterson" helped raise the awareness of Mary Ellen Kramer, Frank Blesso and others to the rich treasure present in the industrial architectural fabric of Paterson. Young's research provided the documentation for a nomination form to place the Great Falls/SUM area on the U. S. Department of Interior’s National Register of Historic Places as an 89-acre historic district. The nomination was reviewed by Mary Ellen, Frank and others, and submitted as prepared by: Leo Fichtelberg, Paterson Library; Francis J. Blesso, Paterson Redevelopment Agency; John Young, Urban Deadline; and Dr. D. Stanton Hammond, Passaic County Historical Society. The nomination was approved and entered on the National Register on April 17, 1970.

**GREAT FALLS COMMITTEE**

Meanwhile, Mary Ellen had helped organize a citizens group which began to question whether the planned highway was good for Paterson. The three-tiered mile-long raceway system which once energized the mills would be purchased and obliterated. Many of the major buildings which contained active and productive industries had already been acquired and others were shutting down in anticipation of purchase. The loss of ratables and jobs would be significant. John Young and his associates became Urban Deadline, a group of advocate architects, who sought out low- or no-budget projects overlooked or rejected by professional architects. Urban Deadline prepared a proposal to the Great Falls project committee including sketches and drawings showing how, with community involvement and input, the buildings could continue to function as factories, community centers, restaurants or industrial museums.

The citizens group began to explore modifications to the highway such as reduction from a six-lane elevated expressway to a four-lane at-grade boulevard. Ramp simplifications or eliminations were studied. Specific modification plans were prepared by John Young and his Urban Deadline organization, Cahn Engineers for the Paterson Redevelopment Agency and the Regional Plan Association. Although DOT officials listened politely to Mary Ellen Kramer, Frank Blesso and other citizens, the
modifications were never officially endorsed by the Mayor; and, therefore, were not taken seriously by the State. Everything changed, however, when the realization of the significance of the listing of the Great Falls Historic District on the National Register hit home. DOT officials, many of the City business leaders and a few highway right-of-way property owners not yet acquired were devastated. Since the peripheral highway was to be constructed with 50% to 80% federal funding, it now fell upon the DOT to evaluate all possible alternatives to minimize impact on the District. All acquisition ceased. The citizens group had never intended to stop the highway. They merely wanted to reduce its visual and economic consequences and to integrate it into the City rather than having it divide the City.

COMMUNITY COLLEGE PROPOSAL

During 1970, the Freeholders of Passaic County had decided to create a community college. They set their hearts on a large open site in suburban Wayne. Mary Ellen and a group of citizens, using slides and sketches prepared by Urban Deadline, mounted a strong campaign to place the community college in mill buildings in the District. Calls and trips were made to Washington and several million dollars of Housing and Urban Development historic preservation funds were unofficially earmarked. While the Freeholders could not be convinced, the effort was not in vain. Soon, after much lobbying, a downtown Paterson redevelopment site was selected which included the adaptive reuse of a former New Jersey Bell Telephone operations building.

GREAT FALLS PARK

Mary Ellen and the citizens group began capitalizing on the renewed interest around the Great Falls. An unused and ignored area at the top of the Falls was turned into Great Falls Park, largely through Mary Ellen's ability to solicit donations of labor and materials. A deck was placed over a bridge supporting a water pipe, thus opening access for pedestrians to what became Great Falls Park and providing a spectacular view close enough to feel the spray of the Falls.

GREAT FALLS DEVELOPMENT CORPORATION

In 1971, the citizens group was incorporated into the Great Falls Development Corporation, a nonprofit public membership organization designed advise the City on how to plan and execute development of the area. It consisted of a 26-member Board of Directors made up of private citizens and representatives of 10 public agencies. Mary Ellen Kramer and Frank Blesso were charter members.
GREAT FALLS FESTIVAL

On Labor Day weekend of the same year, Mrs. Kramer spearheaded the first Great Falls Festival, a four-day cultural and entertainment celebration of Paterson, including the return of a daredevil aerial act over the Falls. The Festival was a tremendous success and brought tens of thousands of citizens to the area.

SMITHSONIAN INSTITUTION REPORT

After the District was entered on the National Register, Mary Ellen Kramer called upon the National Park Service and the Smithsonian Institution to evaluate the area in terms of national significance. Field visits were made by both agencies in 1972. Robert Vogel, an industrial expert from the Smithsonian Institution wrote: "No other American city has the prospect for the imaginative development of a historically important industrial area than is now Paterson's." The field visits and reports provided additional national credibility to the area and helped set the stage for the involvement of the National Park Service. The project began to receive national attention. Publications about the District have appeared in American Home, Architectural Forum, Constructioneer, H.U.D. Challenge, New York Times, Preservation News, Civil Engineering and Suburban Life.

HYDROELECTRIC PLANT

The local utility company, Public Service Electric and Gas (PSE&G), had operated a hydroelectric plant at the Falls until it was closed in 1969 after some flood damage. The plant, built by SUM in 1914, did not fit in with PSE&G's future plans which were geared to nuclear power. Mary Ellen persuaded PSE&G to return the facility to the City which had inherited it from the SUM. In 1974, Mary Ellen, Frank Blesso and John Young, on behalf of the Great Falls Development Corporation, prepared and submitted an application to the National Endowment of the Arts under its City Options competition, to explore the feasibility of reactivating the plant. The application was funded; and after several years of effort and design, the plant is now restored and operating.

Flow in the Passaic River, however, has been reduced due to a controversial upstream-diversion project, called the Two Bridges Diversion, which was unsuccessfully opposed by the Great Falls Committee. Currently, there exists the dilemma of weighing scenic value of flow over the Falls and through the raceways versus the economic value of flow dropping through the penstocks of the hydroelectric plant and generating power and revenue.
THE ROGERS BUILDING

DOT, in order to acquire the right-of-way for the Route 80 storm drain, purchased the rear yard and boiler room of the Rogers Erecting Shop on Spruce and Market Streets. Mary Ellen, again using her persuasive powers, convinced the owner to donate the remaining structure to the Great Falls Development Corporation.

ARCHAEOLOGY

The design and construction of Interstate 80 required a storm drain through the District to the Passaic River. This intrusion gave the Great Falls Committee the ability to negotiate an agreement with DOT to install the drain by jacking or tunneling it under most of the District, and to fund a salvage archaeology project related to its work. The project team uncovered hundreds of artifacts and photographed and documented numerous features of the early raceway and building construction. Perhaps its most interesting find was the accidental discovery, as a result of the DOT’s storm-drain excavation, of a completely intact covered section of the lower raceway extending along the north side of Market Street from Spruce Street to Mill Street.

HAER TEAM

The National Park Service’s Historic American Engineering Record (HAER), at Mary Ellen's request, spent two summers measuring and preparing detailed drawings of many of the structures and features in the District. This work, which included over 40 quality maps and research into the history of the buildings, provided further documentation of the significance of the area. A local share of the cost was required which Mary Ellen helped raise through the Great Falls Development Corporation.

NATIONAL LANDMARK

During the early '70s, the team of Mary Ellen Kramer, John Young and Frank Blesso, accompanied by other citizens, made trips to Trenton and Washington to seek consideration of the establishment of a State and/or National Park. Unfortunately, the efforts were not successful. At the federal level, the administration was trying to close, not open, national parks, and was especially cool to the Urban Cultural Park idea.

A former member of the HAER team was hired by the City Redevelopment office and prepared a voluminous nomination to designate the Great Falls as a National Landmark. President Gerald Ford visited Paterson on June 6, 1976, and made the landmark presentation at a ceremony attended by 60,000 residents.
DISTRICT EVENTS

The Falls area had always attracted tourists. The new publicity brought groups and individuals from all over the world to visit and participate in tours. The Great Falls Development Corporation, on February 15, 1976, sponsored a "Winter Walk of Paterson and the Great Falls" that drew 1,300 people on a cold and dreary Sunday. On May 15, 1977, a 12-mile bike tour featuring the District and the Paterson area attracted hundreds from the region. Many groups, such as the Northeast Victorian Studies Association, the Victorian Society of America, the American Society of Civil Engineers and the Association of American Geographers, organized tours around the District.

The District served as the backdrop for a Paterson director's first feature-length film. It was written and produced by two other Eastside neighborhood residents. Mary Ellen Kramer and Frank Blesso literally opened the doors of the City. The Ryle House provided the primary set. The film contained many shots of the District including a grizzly murder scene from the interior of the un-restored Rogers Building. "Communion" premiered in Paterson on November 13, 1976, at the downtown Fabian Theater. Proceeds from this gala world opening were donated to the Great Falls Development Corporation. The murder-mystery, ultimately released as "Alice Sweet Alice," is perhaps most notable for containing the debut of a New Jersey 12-year old, Brooke Shields.

NATIONAL CIVIL AND MECHANICAL ENGINEERING LANDMARK

Frank Blesso prepared the successful nomination of the Great Falls power and raceway system as a National Civil and Mechanical Engineering Landmark. A dedication ceremony was held May 20, 1977, the 50th anniversary of Lindbergh's crossing the Atlantic powered by a Wright Aeronautics engine made in Paterson.

EDA TITLE IX FUNDING

In the late '70s, Paterson received substantial funding from the federal Economic Development Administration, under its Title IX program. This enabled the City to make substantial progress in implementing the Great Falls District multi-use concept. The preliminary survey and planning work undertaken by John Young and the Redevelopment staff, in the early 1970s, was updated and expanded. An official redevelopment area was designated for a large portion of the Great Falls District. This enabled the City to have both control and flexibility when dealing with developers. The Title IX funding enabled the complete restoration of the Rogers Erecting Shop, transforming it into a modern office building with the relocated Paterson Museum on the first floor. This high-quality work serves as a standard for private developers.

Properties acquired by DOT intended for demolition were re-acquired by the City to be resold to private developers under the redevelopment plan.
The Essex and Phoenix mill complexes were converted into 144 units of attractive loft apartments for artists and families. The City's Department of Community Development succeeded in obtaining a special waiver from HUD to permit single artists to receive Section 8 rent subsidies which are normally only granted to families, the elderly or the handicapped.

The Franklin Mill was purchased and converted into a modern four-story office building retaining all its exterior features.

Federici Park, with its gleaming fountain and attractive gazebo, was created to ease the transition from the Historic District to the downtown area.

The upper-raceway area was transformed into a park with a walkway, lighting and benches.

The Ivanhoe Wheelhouse and adjacent spillway were restored.

New parking areas were created along with roadway and street-scape improvements.

The City amended its Zoning Ordinance to encourage loft apartments and to provide for a local Historic Preservation Commission with the responsibility for reviewing all construction in the District.

**FIND A LOCOMOTIVE**

From 1837 to 1923, Paterson was the home of six steam locomotive manufacturers which built approximately 23% of all 19th century American steam engines. They included the Rogers "General" and the Danforth-Cooke "Texas" Civil War engines, and the Rogers "119" Golden Spike Ceremony engine. Yet, there was not a single example remaining in Paterson. Mary Ellen Kramer and the City's Department of Community Development staff set out to remedy that situation. They searched the world and located an Alco-Cooke tender engine rusting away in Pennsylvania. The Great Falls Development Corporation mounted a fund-raising effort and brought the engine back to Paterson. The real prize example, however, a Cooke 2-6-0 "Mogul" engine "299" and tender were sitting on display since 1955 at the Balboa Heights railroad station in the Panama Canal Zone. Only a few days before the Canal Zone was turned over to Panama, Mayor Pat Kramer, after a lengthy negotiation, stood on the docks at dawn in the Canal Zone when Engine "299" was placed on a giant tender for its final passage through the locks of the Panama Canal. At the end of its canal journey, it was hoisted onto a freighter for its final trip home, arriving on June 6, 1979. Both locomotives are now on display in the yard of the Rogers Building and Paterson Museum.
MODIFIED HIGHWAY CONNECTOR

DOT officials and engineers, after being forced to abandon the original peripheral highway concept, worked with City officials and citizen groups to redesign the highway to a connector road, whose sole purpose is to serve the downtown and Great Falls area. The highway engineers adopted the City's design elements which were developed for the Historic District and incorporated them into the connector road. The connector, now known as Route 19, was opened in October 1992. The early reviews and renewed interest by developers, in both the Historic District and downtown, appear to support the notion that the City at long last has a transportation link that serves rather than severs.

PROJECT UPDATE

The concepts and ideas developed in the late '60s and early '70s are still only partially realized. There were severe setbacks due to disastrous fires and a depressed real estate market. The National Park Service, largely as a result of Senator Lautenberg's efforts, in 1992 allocated $4.2 Million for the Great Falls Historic District and is currently working with City officials on further improvements, focusing on the fire-damaged vacant and under-utilized structures in the District. Frank Blesso is the coordinator for the City's end of this partnership, and meets with a core advisory group of citizens and officials who are working with the National Park Service staff.

Former Congressman Robert A. Roe pursued the establishment of a National Park under the auspices of the Park Service. Mary Ellen Kramer and others, however, had reservations about the possibility of losing local and community control of the area. Concerns vanished after seeing the impact of federal dollars successfully applied to another early industrial community, Lowell, Massachusetts. Roe's successor, freshman Congressman Herb Klein, has recently introduced new National Park legislation for the District.

The Great Falls Committee, which became the Great Falls Development Corporation, has recently changed its name to the Great Falls Preservation and Development Corporation. It continues its community function of sponsoring events and fund-raising activities. In 1991, the Corporation commissioned Ellen Denuto, a resident of the Essex Mill and a member of the City's Historic Preservation Commission, to prepare a photographic poster to highlight the District and to be used to raise funds. The Corporation also funded a visual preference and planning study of the District and is active in efforts to prevent the demolition and removal of the remnants of structures severely damaged by fires.

The Falls Festival, which started in 1971, ran continuously until 1982, attracting many thousands. Each year the Festival featured an aerial act, including appearances by perhaps the two most famous practitioners in the world, Philippe Petit and Carl Walenda. After a change in administration, the Festival was cancelled citing the strain on the City's
financial resources. In 1992, as part of the Bicentennial celebration of the City's founding, Mayor William J. Pascrell, Jr., one of the members of the original Great Falls Committee and active in its Passaic County Community College effort, brought back the Falls Festival to cheering crowds. The Festival enjoyed continued success in 1993.

There has been renewed activity related to the physical development of the District. The largest vacant structure, the four-story Cooke mill, is undergoing complete restoration in a $9 Million mixed-use project, involving St. Joseph Hospital's Family Care Center on the first two floors and 34 units of affordable rental housing on the two upper floors.

The City recently foreclosed and regained possession of 13 parcels of land and buildings from a developer who was unable to obtain financing to complete the rehabilitation. One structure, the former School 2 at Mill and Passaic Streets, vacant and deteriorating since its purchase by DOT in 1970, has been transferred to the school district. Plans are being prepared and funding is in place to restore the building to its original school purpose as a modern early-childhood learning center. The Department of Community Development is currently negotiating with several developers for the sale and redevelopment of the remaining parcels, including a seven-acre tract along the river, which contains the historic but fire-damaged Colt, Todd and Waverly mills.

The activity in the District has had its intended spillover effect into the downtown area. The new highway connector, Route 19, provides excellent access to both the District and downtown. The City is currently negotiating with a developer to construct a major office/retail complex called Center City at the terminus of Route 19 at Ward and Main Streets. City officials gained substantial financial assistance from the State of New Jersey for the project in the form of low-interest financing and a commitment to lease 60,000-square feet of space in the first phase of development.

The development process, inspired by John Young and implemented by Mary Ellen Kramer, Frank Blesso and dozens of others, continues. The vision was never to create a District with a defined boundary containing Williamsburg-type buildings, as Mary Ellen used to say, "with purple ropes around them." Rather, the vision centered around the use of the gift of nature, the Great Falls, as an inspiration to enhance the surrounding area, to build industry and jobs, attract visitors and new users to the area and buildings, and to build pride and vitality throughout Paterson and its neighborhoods.
THE GREAT FALLS PROJECT
SUPPORTING EXHIBITS

Over the 25-year span of the project, there have been hundreds of maps, reports, pamphlets, newspaper and magazine articles, archaeological artifacts and thousands of slides and photographs about the Great Falls area. The following exhibits have been selected as representative of some of the key elements of the project process.

Exhibit A. Video. Part 1: *Historic Paterson, New Jersey*, by B. Cannon Moore, 1988 (13 minutes). (Presents background history on the Great Falls, the founding of Paterson, and the design of the raceway system which served the industrial buildings. It also shows many of the project accomplishments including the restoration of the Ivanhoe Wheelhouse, the Rogers Erecting Shop, the Union Works, the Ryle/Thompson/Argus complex, the Franklin Mill, the Phoenix and Essex Mills and the new Federici Park.)

Part 2: *Paterson Prime Time*, by Ming, 1993 (6 minutes). (Although this is primarily an economic development promotional piece, it demonstrates the importance local officials place on the modified highway connector and shows its opening ceremony attended by Governor Florio and other dignitaries. It also shows current downtown projects, the Federici Park fountain and the rendering and start of conversion of the Cooke Mill.)

Exhibit B. Map. Alignment of Route 20 Peripheral Highway through Paterson, scale 1" = 200', signed by Mayor Lawrence F. Kramer, Jr., September 20, 1968, N. J. Department of Transportation.


Appendix F


Exhibit J. Letter. New Jersey Department of Transportation to Great Falls Development Corporation, September 30, 1974. (The letter forwarded an agreement in which the State agreed to new studies incorporating a multi-disciplinary approach and public participation to examine six alternative concepts for the highway and to work with a steering committee appointed by the Mayor of Paterson.)


Exhibit L. Pamphlet. The Great Falls; S.U.M. Historic District, by Great Falls Development Corporation, circa 1977. (Includes early history, recent history, photo of President Ford dedicating the Great Falls Historic District as a National Landmark on June 6, 1976, and outline of walking tour with photos and narrative descriptions of mills and district features.)

Exhibit M. Dedication Program. The Great Falls Raceway and Power System, National Historic Mechanical and Civil Engineering Landmark, by Francis J. Blesso and Jack R. Stokvis, dated May 20, 1977. (Outlines the evolution of the raceway and power system, and highlights the many engineers, businessmen and workers who produced products in Paterson.)


Exhibit O. Pamphlet. Map and description, Route 20 Connector from 1-80 to Main Street, New Jersey Department of Transportation. (From public information pamphlet issued prior to construction. Shows modified alignment with minimal impact to the Great Falls Historic District.)

Exhibit P. Photo. Aftermath of several fires at Waverly Mill, by Tom Groenfeldt, 1993. (Shows sample of challenges to be faced in reuse and development of the District.)


Exhibit R. Newspaper guest editorial. "'She did wonderful things' for Paterson," The Record, July 28, 1993.


**In Separate Tube**

APPENDIX G

National Historic Landmark Documentations

1967–1984 National Natural Landmark

U.S. Department of the Interior
National Park Service
National Natural Landmarks Program

Name: Great Falls of Paterson-Garrett Mountain

Location: Passaic County, New Jersey

Description: This approximately 313-acre site consists of two portions: Great Falls of Paterson (4 acres) and Garrett Mountain (309 acres) which reveal the first Watchung lava flow and the underlying Triassic Brunswick mudstone over which the lava flowed. Outpouring of the Watchung basalt began long after the start of detrital sedimentation in the Newark Basin without preliminary explosive activity. Fluid lava was spread at least 50 miles in single flows 150 to 175 feet thick. In a general way the distribution of the lava records the axial position of the Newark Basin. There are excellent exposures of both platy and columnar jointing, and the west flank of the mountain is marked by a long normal fault that records break-up of the Newark Basin after accumulation of the Brunswick Formation and its lava flows. The glacially smoothed crest of Garrett Mountain affords an excellent view of the gorges of the Passaic River that cut into the hard lava ridges of the three Watchung lava flows. The river notch and vertical cliffs in which it occurs exhibit a joint system with the boulders below the cliff face illustrating the action of stream and frost in disrupting jointed rocks. The Passaic River is the principal drainage of the Great Swamp area that formerly was occupied by glacial Lake Passaic. At the falls, the river drops about 75 feet from the basalt cliffs and cuts its downstream channel into the more erodible sandstone.

Significance: Great Falls of Paterson and Garrett Mountain provide an excellent illustration of the jointed Watchung basaltic lava flow which began a period of extrusion and intrusion throughout eastern North America in the early Mesozoic influencing present day landforms in this region.

Ownership: Municipal and County

Designation: May 1967; enlarged January 1984

**1976 S.U.M. Great Falls Historic District**

**NAME**

GREAT FALLS OF THE PASSAIC/SOCIETY FOR ESTABLISHING USEFUL AND/OR COMMON

AND/OR COMMON MANUFACTURERS

**LOCATION**

STREET & NUMBER

See boundary description - item 10

NOT FOR PUBLICATION

CITY, TOWN

Paterson

STATE

New Jersey

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**OWNER OF PROPERTY**

(Raceways, surrounding land and water rights)

NAME

City Of Paterson

STREET & NUMBER

155 Market Street

CITY, TOWN

Paterson

STATE

New Jersey

**LOCATION OF LEGAL DESCRIPTION**

COURTHOUSE, REGISTRY OF DEEDS, ETC

Passaic County Courthouse

CITY, TOWN

Paterson

STATE

New Jersey 07505

**REPRESENTATION IN EXISTING SURVEYS**

TITLE

Historic American Engineering Record

DATE

Summer, 1973; Summer, 1974

REPOSITORY FOR SURVEY RECORDS

Library of Congress

CITY, TOWN

Washington, D.C.
In its original appearance the Great Falls of the Passaic was a geological feature, the basaltic ridge of the Watchung Mountains, through which the Passaic River flowed into an eroded gorge. In its unaltered form, the Falls was a natural site of great beauty. The gorge and waterfall remained substantially unaltered, though a bridge and water pipe cross the gorge, the surrounding area has been gradually developed by harnessing the power of the Passaic River.

The Society for Establishing Useful Manufactures (S.U.M.) was organized to develop the water power at the Great Falls Site. Construction of the raceway system for direct water power to mill sites began in 1792. The Society made major additions and alterations in the raceway system; in 1800-02, 1807, 1827-28, 1838-40, and 1846. The three-tier raceway system remains substantially unaltered from its 1846 appearance though the S.U.M. added two feet to its dam in 1864 and a concrete sluiceway to supplement the S.U.M. Gatehouse at the river entrance in the 20th Century.

In 1912-14 the S.U.M. cut through the cliff near the falls and built a hydro-electric plant to use the water of the Passaic River, supplementing the function of the raceway system and increasing the power available. The S.U.M. raceway system still functions as a source of industrial process water and as a standby fire protection reservoir. The City of Paterson is developing the area along the raceways as a scenic park, restoring the raceways where necessary. There are over a mile of raceways spread out through the Great Falls/S.U.M. site.
SIGNIFICANCE

PERIOD AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW
O PREHISTORIC O ARCHEOLOGY - PREHISTORIC O COMMUNITY PLANNING O LANDSCAPE ARCHITECTURE O RELIGION
O 1400-1499 O ARCHEOLOGY - HISTORIC O CONSERVATION O LAW O SCIENCE
O 1500-1599 O AGRICULTURE O ECONOMICS O LITERATURE O SCULPTURE
O 1600-1699 O ARCHITECTURE O EDUCATION O MILITARY O SOCIAL/HUMANITARIAN
O 1700-1799 O ART O ENGINEERING O MUSIC O THEATER
O 1800-1899 O COMMERCE O EXPLORATION/SETTLEMENT O PHILOSOPHY O TRANSPORTATION
O 1900- O COMMUNICATIONS O INDUSTRY O POLITICS/GOVERNMENT O OTHER (SPECIFY)
INVENTION

SPECIFIC DATES 1792-1864, 1912-14
STATEMENT OF SIGNIFICANCE

The Great Falls/S.U.M. Raceway System was the first attempt within the United States to harness the entire power of a major river. Stimulated by Alexander Hamilton, the S.U.M. and its raceway system was the engineering embodiment of a political principal. Hamilton and others wished to achieve America's independence from British manufacturers. Hamilton and his friends established the S.U.M. in order to demonstrate the profitability of American manufacturing. On November 22, 1791 the promoters obtained a New Jersey Charter for the Society for Establishing Useful Manufactures. The authorized capital of the new company was $500,000, an enormous sum for those days. In order to develop large scale manufacturing the S.U.M. needed a major water power development. The 65 foot head available at the Great Falls site offered the opportunity for such a development. William Duer, the first governor of the S.U.M., and a Mr. Allon, an unknown French engineer developed the first plan for the Great Falls Site. They proposed to open a channel above the Great Falls and to build a power and transportation canal all the way to tidewater at the present site of Paterson, New Jersey. The canal would have been 6 miles long. The Duer - Allon plan offered the advantage of transportation from above the Great Falls to tidewater and the development of slightly increased power. However, the plan also would have required enormous capital expenditures. In July of 1792 the directors abandoned this plan as beyond the limited financial and engineering resources of their company.

Alexander Hamilton, his father-in-law, Phillip Schuyler and possibly an Irish engineer Christopher Colles, developed the second plan for the S.U.M. Raceway System. Thomas Marshall, the S.U.M.'s English textile engineer also assisted in developing the plan. The principal obstacles to be overcome were a ravine adjoining the river and a rock ridge beyond the ravine before one reached the proposed mill sites. The new plan called for filling in a dyke, bridging across the ravine or using the ravine as a reservoir and cutting through the rock ridge beyond. The transportation canal was abandoned in this second plan.

Hamilton requested Pierre Charles L'Enfant, a French engineer, who had come to America during the Revolution, to examine the plan proposed by the Society. In August of 1792 L'Enfant came to Paterson, examined the site, criticized the Hamilton - Schuyler plan and developed his substitute plan which was accepted by the Society. L'Enfant proposed to open
9. MAJOR BIBLIOGRAPHICAL REFERENCES

Harold C. Syrett, ed., The Alexander Hamilton Papers
Levi Trumbull, History of Industrial Paterson
Historical Society of Pennsylvania, Roswell Colt Papers
Tench Coxe Papers
New York Public Library, Philip Schuyler Papers

10. GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY: 108

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VERBAL BOUNDARY DESCRIPTION

Beginning at the Passaic River Bank where Walker Street extended meets the river, thence east along Walker Street to Reservoir Road extended, Thence south along Reservoir Road to Grand Street, thence east along Grand Street to Morris Street, thence north along Morris Street to Barbour Street, thence east along Barbour Street and Barbour Street extended to former Pine Street, thence north along former Pine Street (cont).

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

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11. FORM PREPARED BY

RUSSELL I. FRIES, HISTORIAN
HISTORIC AMERICAN ENGINEERING RECORD 2/9/76
414 East 42nd Street (201) 684-4082
Paterson New Jersey

12. STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

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FOR NPS USE ONLY
I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

KEEPER OF THE NATIONAL REGISTER

300
a channel to the river through the rock using an aqueduct to cross the ravine and blast a gap (now known as La Fontaine's Gap, an obvious corruption of L'Enfant) in the rock ridge to the east. The Society retained L'Enfant as the project engineer and construction began under his direction. Despite progress on the aqueduct and blasting operation, the directors became disappointed with the progress of L'Enfant's plan. The panic of 1792 injured the resources and credit of the Society, and L'Enfant's expenses mounted up at a rapid rate which seemed excessive to the directors. The directors were also displeased by the fact that water was not yet available to operate the mills in early 1793. At a directors' meeting on June 9th the Board dismissed L'Enfant and replaced him with Peter Colt, an American without any significant engineering experience as the superintendent of the Society. The Society felt that an untrained American was better able to carry out an American engineering project than a trained engineer.

L'Enfant's departure from Paterson left Peter Colt in full control of the project, but it certainly did not end the construction problems. Colt followed the simplest and least complicated plan in an attempt to keep both labor costs and engineering requirements low. Instead of carrying water across the ravine, the ravine was used as a reservoir. From the reservoir water passed through the gap in the rocks and into a single raceway which continued only to the site of the Cotton Mill. Colt abandoned L'Enfant's plan to have an aqueduct serving as a transportation canal, and power canal and carriage way. Peter Colt's plan had the advantage of a low first cost, but ultimately cost more than L'Enfant's because the reservoir leaked and was abandoned in 1846. The raceway system of 1846 (and today) resembles the L'Enfant plan far more than Colt's design.

Peter Colt brought water to the S.U.M. mill during the summer of 1794 and the mill began to turn out cotton textiles. However, the business was not profitable and the factory closed in 1796. The S.U.M. did not go out of existence but simply suspended operations. Between 1800 and 1802 the S.U.M. constructed an increased length of raceway from the location of the first mill to serve the new factory. In 1807 the demand for mill sites increased and the S.U.M. constructed an entirely new canal level below the original canal. In 1827-28 additional demand forced the S.U.M. to construct a third level raceway above the previous two. The S.U.M. raised the earthen embankment at the end of
of the reservoir and built a channel along the side of the ridge at L'Enfant's Cap. Also at this time the S.U.M. added locks from the river into the reservoir so that the new upper raceway level could be used as a transportation canal from the river. In 1838-40 the S.U.M. abandoned its previous wooden dam and constructed a new masonry dam further down stream towards the Great Falls. In 1846 the leaky reservoir forced the S.U.M. to abandon Colt's design, cut a new channel into the river bed and then carry the water across the ravine on top of the former reservoir embankment. In 1864 the S.U.M. raised the masonry dam by two feet in order to increase the storage and head of the system. In its ultimate form the raceway was capable of developing over 2,000 horsepower. Since an individual mill power was 17 horsepower, the size of this development compared with most previous engineering was enormous.

Use of the water through the raceway system continued to expand into the 20th Century as industries prospered in Paterson. However, by about 1900, it was apparent that the individual water wheel using water from the raceway was generally less efficient than a central station generating hydro-electricity from the river. If the entire machinery of a mill was not turning then the full horsepower of the water wheel driving the machinery was not necessary. As the flow of water through a wheel was decreased the efficiency generally fell markedly. Similarly unless the three raceway levels were using precisely the same quantity of water then there would be a disequilibrium between them and water would be wasted in supplying the one with heaviest demand while the others used only part of the water. In 1910 the S.U.M. developed plans for a hydro-electric station. It persuaded the mill owners to accept electricity from the hydro-electric plant instead of the water at their mill sites. The new hydro-electric plant had a maximum capacity of 6500 horsepower using four boiler-case double-runner Francis turbines by the S. Morgan Smith Co., and Westinghouse alternators. Thus the hydro-electric plant further increased the power that could be developed from the Great Falls. In the early 20th Century the S.U.M. constructed a new sluicegate structure behind the S.U.M. Gatehouse where water was admitted from the river into the raceway system. For the most part the raceway system remains as it was in 1846.

Besides the significance of the first major hydraulic power
development in the U.S. the S.U.M. raceway system also shows the gradual perfection of American engineering. The early raceway system wasted much power. The hydro-electric plant wasted almost none.

IMPORTANT STRUCTURES ALONG THE RACEWAYS

1. Site of original S.U.M. Dam and raceway entrance. The approximate location of the dam and locks from the river have been determined. The channels were filled in, in the 1880's and it is hoped future archeological investigations will expose the rock-hewn locks.

2. The second S.U.M. Dam, located approximately 150' upstream from the Great Falls. Built of massive sandstone blocks attached to the river bed by iron cramps the S.U.M. Dam preserves its 1846 appearance, though two feet were added in 1864. The dam has deteriorated due to lack of maintenance. However, restoration to like new condition is part of the plan for reactivating the S.U.M. hydro-electric plant.

3. The S.U.M. gatehouse at the entrance to the canal stands in the same place as it did in 1846. Though the gates have deteriorated and the structure no longer functions the gate machinery (a rack and pinion system) is still in place and probably original. Restoration to new condition is planned.

4. The Ivanhoe Wheelhouse is located near the spillway from the upper to the middle race. Part of the building dates to the 1840's, when it served as a rag storage and sorting house. The rear portion was added during the 1850's when the turbine began to replace the waterwheel. The wheelhouse took water from the upper race via an iron penstock seven feet in diameter. The vertical shaft turbine 87 inch wheel generated over 200 horsepower, the largest single wheel on the raceway. The wheel and penstock went for scrap during World War II, but restoration may be accomplished via a New Jersey Green Acres grant.

5. The single most exciting discovery of the 1973-74 Archeology Salvage Project and the Historic American Engineering Record Survey...
Statement of Significance

was the Market Street underground raceway, arched and covered during the 1850's, sealed and forgotten when the raceway ceased to function as a source of power. At the end closest to Spruce Street the tunnel is made of arched sandstone blocks, with carefully cut dressed sandstone arches at the corner. As the raceway proceeds parallel with Market Street towards Mill Street it increases in height and width, and changes to vaulted brick construction. The tunnel is in almost perfect condition, except for about 15 feet damaged during the Department of Transportation's construction operations in the vicinity.

6. The Essex Mill penstock and reservoir. A late 19th Century iron trunk and a portion of a three foot penstock remain behind the Essex Mill. Remnants of the turbine may exist below the mill floor.

7. Essex Mill spillway. This rebuilt spillway has the date stone, S.U.M. , 1838 on it.

8. Sandstone bridge over the raceway at Passaic Street was built by Miller in 1850.
IMPORTANT ENGINEERS AND OTHERS INVOLVED IN THE DESIGN AND DEVELOPMENT OF THE SUM RACEWAY SYSTEM

STATEMENT OF SIGNIFICANCE 8 6

Alexander Hamilton - As the first Secretary of the Treasury Hamilton was deeply involved with the success of the S.U.M. plan. He played a crucial role in choosing the Great Falls site as well as helping in the preliminary design work for the raceways. Hamilton brought Pierre L'Enfant and almost all the principal workmen into contact with the Society.

Thomas Marshall - An English textile machinery engineer, Marshall conducted the survey of possible power sites in the New Jersey area for the S.U.M. He was accompanied by Joseph Mort and William Hall for part of the time, but found Me Allon hopelessly French.

Me Allon - An unknown Frenchman, possible with an engineering background, who developed the Duer - Allon plan for the power/transportation canal to tidewater. He disappears after 1792.

Pierre Charles L'Enfant - Planner of the new capital, L'Enfant was an engineer/architect of high quality. After leaving the Washington project he was suggested by Hamilton to the Society. Though the plan was not completed under his direction it was, in effect, carried out by his successor.

Peter Colt - A former treasurer of the State of Connecticut, Peter Colt was also involved with the ill-fated Hartford Wollen Factory. Colt left the S.U.M. in 1797 when manufacturing operations ceased. He continued his engineering work with Philip Schuyler on the Western Inland Lock Navigation Company, predecessor of the Erie Canal. After 1807 Colt returned to Paterson.

John Colt - Son of Peter Colt, took over as the Society's hydraulic engineer during the period of the Society's greatest growth. Colt and the Society helped sponsor the Franklin Institute's water wheel study. Colt brought the raceway system to its state of maximum development.
John H. Cook - Engineer for the S.U.M., Cook was a recognized professional member of the A.S.C.E. Cook supervised the design and construction of the S.U.M. hydro-electric plant.

Philip Schuyler - Alexander Hamilton's father-in-law, Schuyler was also a technically knowledgeable individual, though not an engineer. Schuyler was involved in the initial engineering surveys around the Great Falls. He assisted in the decision to abandon the Duer - Allon plan, and advised Hamilton on alternate plans. Schuyler later went on to promote the Erie Canal route through his Western Inland Navigation Company until his death in 1807.

Christopher Colles - An immigrant Irish engineer, Colles was responsible for much engineering work in the U.S. He attempted to develop a steam-driven public water system in New York City, but the Revolution aborted it. In 1792 he aided in engineering the locks at South Hadley Falls on the Connecticut River. His involvement in the S.U.M. project is not certain, but he was well known to Philip Schuyler and was in the area at that time.
SIGNIFICANCE

List of Illustrations

Plan 1 - Contour Map of Great Falls/S.U.M. Historic District
Original Scale 1" = 100'. Historic American Engineering Record

Plan 2 - Paterson Raceway System and mills at present - Historic American Engineering Record, Scale 1" = 50', sheet 3 of 5.

Plan 3 - Ibid - Sheet 4 of 5

Plan 4 - Ibid - Sheet 5 of 5

Plan 5 - Duer - Allon plan - 1792, Historic American Engineering Record.

Plan 6 - Paterson Raceways, 1792-1799, Historic American Engineering Record.

Plan 7 - Paterson Raceways, 1800-1827, Historic American Engineering Record.

Plan 8 - Paterson Raceways, 1828-1837, Historic American Engineering Record.

Plan 9 - Paterson Raceways, 1838- present, Historic American Engineering Record.

Plan 10 - Outline of Historic District

Plate 1 - General overview of Falls S.U.M. Dam and hydro-electric plant, Historic American Engineering Record.

Plate 2 - S.U.M. Hydro-Electric Plant, January 17, 1917, Reid Studio.


Plate 4 - Lower Raceway along Van Houten Street, Historic American Engineering Record.
Plate 5 - Danforth Cooke Locomotive Works, Market Street ca 1860's showing portions of raceway in foreground that were later covered. Further up raceway already covered, Livitsanos Photography Studio.

Plate 6 - Historic American Engineering Record team and archeology salvage project in covered tailrace along Market Street, Historic American Engineering Record.

Plate 7 - Ivanhoe Wheelhouse with penstock, April 6, 1916, Reid Studio.

Plate 8 - Upper raceway, spillway and Ivanhoe Wheelhouse under reconstruction, 1973, Historic American Engineering Record.

Plate 9 - A forty-foot iron water wheel under construction in the Danforth-Cooke shop in Paterson, Passaic County Historical Society.

Plate 10 - Middle raceway ca 1860's showing flume trunk from upper race crossing to Passaic Mill No. 2., Passaic County Historical Society.

Plate 11 - Rogers Locomotive Works, Spruce Street showing flume trunks to the Jefferson Mill (1831) and Morris canal in background, Trumball.

Plate 12 - Rogers Works, 1905, showing large factory complex using water- Factory Mutual Assurance Association.
to Oliver Street, thence east along Oliver Street to Mill Street, thence north along Mill Street to Van Houten Street, thence east along Van Houten Street to Curtis Place, thence north along Curtis Place to River Street, thence east along River Street to West Broadway, thence north-west along West Broadway and across the Passaic River to Ryle Avenue, thence west along Ryle Avenue to the Valley of the Rocks, thence along the cliff edge of the Valley of the Rocks to Walnut Street, thence west along Walnut Street to Maple Street, thence southwest along Maple Street to Wayne Avenue, thence southeast along Wayne Avenue to the Bank of the Passaic River, thence southwest along the Passaic River to a point on the bank where a line from the first course extended meets said bank, thence across said river to the place of beginning.
Contour Map of Great Falls/S.U.M. Historic District
Original Scale 1" = 100'. Historic American Engineering
Figure 8-4

Map of the Passaic River Basin, Paterson to tidewater, showing hypothetical route for Duer-Allon Canal to Vreeland's Point (Mosaic), New Jersey and Garrison's Brook (N. Paterson).


Map prepared by Historic American Engineering Record, HAER.
Figure 8-7

This sheet shows the expansion of the raceway system, which began in 1800, with the extension of the raceway along the side of the hill beyond the site of the first mill to supply the Essex Mill with water. In 1807 SUM added a raceway along Boudinot (now Van Houten) Street and the tailrace along Mill Street, eliminating the old drainage ditch.

Source: Conceptual map based on Historical Documentation and 1" = 100' map. Map prepared by the Historic American Engineering Record, HAER.
PATERSON RACEWAYS, [1828 - 37]

This sheet depicts a major modification in the raceway system, begun in 1827, due to a lack of water for additional mill sites. The S.U.M. raised the earthen embankment blocking the reservoir from flowing into the Passaic, then turned the water around to the tip of the rocks at L'enfant's Gap into a new upper level raceway with a parallel tailrace below, which led into the previous system along a new line.

Source: Conceptual map based on historical documentation and 1" to 100 map, map culture from Paterson, N.J. map, 1850, by J. C. Sidney, published by M. Griggs, New York, NY; prepared by HAER.
This sheet depicts final alignment of the S.U.M. Raceway system. Leakage through the earthen embankment forced the S.U.M. engineer to abandon the reservoir and channels from the river. Instead, he built a masonry dam downstream and turned the river into the raceway through a new channel cut into the rocky river edge. The eddy on top of the earthen embankment which had served as a dam for the reservoir in the late 1800s was filled in, and the water was then carried across the gully. The reservoir was filled in the late 1800s, and S.U.M. sold the land.

Source: Conceptual Map Based on Historical Documentation and 1”=100’ Map Culture from Paterson, N.J. Map, 1850, by J.C. Sidney, pub. by M. Dripps.
Plate 1 - General overview of Falls S.U.M. Dam and hydro-electric plant, Historic American Engineering Record.
Plate 2 - S.U.M. Hydro-Electric Plant, January 17, 1917, Reid Studio.
Plate 4 - Lower Raceway along Van Houten Street, Historic American Engineering Record.
Plate 5 - Danforth Cooke Locomotive Works, Market Street ca 1860's showing portions of raceway in foreground that were later covered. Further up raceway already covered. Livitsan Photography Studio
Plate 6 - Historic American Engineering Record team and archeology salvage project in covered tailrace along Market Street.
Plate 7 - Ivanhoe Wheelhouse with penstock, April 6, 1916, Reid Studio
Plate 8 - Upper raceway, spillway and Ivanhoe Wheelhouse under reconstruction, 1973, Historic American Engineering Record.
Plate 9 - A forty-foot iron water wheel under construction in the Danforth-Cooke shop in Paterson, Passaic County Historical Society.
Plate 10 - Middle Raceway ca 1860's showing flume trunk from upper race crossing to Passaic Mill No. 2. Passaic County Historical Society.
Plate 11 - Rogers Locomotive Works, Spruce Street showing flume trunks to the Jefferson Mill (1831) and Morris canal in background, Trumball.
1977 National Historic
Mechanical and Civil Engineering Landmark

THE GREAT FALLS RACEWAY
AND POWER SYSTEM
Paterson, N. J.

National Historic Mechanical and Civil
Engineering Landmark

DEDICATION PROGRAM
MAY 20, 1977
NATIONAL HISTORIC MECHANICAL AND CIVIL ENGINEERING LANDMARK


THE GREAT FALLS RACEWAY AND POWER SYSTEM AT PATerson IS THE BASIS OF THE OLDEST AMERICAN COMMUNITY INTEGRATING WATER POWER, INDUSTRIAL DEVELOPMENT AND URBAN PLANNING. IT IS A LANDMARK OF AMERICAN MECHANICAL AND CIVIL ENGINEERING HERITAGE.

DEDICATED 1977 BY:

THE AMERICAN SOCIETY OF CIVIL ENGINEERS  THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
DEDICATION CEREMONY

THE GREAT FALLS RACEWAY AND POWER SYSTEM, PATerson, NEW JERSEY
A NATIONAL HISTORIC MECHANICAL AND CIVIL ENGINEERING LANDMARK
Friday, May 20, 1977

At Haines (Overlook) Park by the Great Falls

8:00 - 10:30 A.M. ASME Board of Directors meeting at former S.U.M. Administration Building. (72 McBride Avenue, Ext.)

10:45 - 11:00 A.M. Band Music-Kennedy High School Band

11:00 - 11:05 A.M. Dedication Ceremony starts with Flying salute over the Great Falls by the U. S. Air Force.


Introduction of ASME honored guests by Robert A. Baker, Vice President, ASME Region II.


11:15 - 11:20 A.M. Solo of "God Bless America" by Pat Falano; piano accompaniment by Councilwoman Marian Rauschenbach.


11:30 - 11:45 A.M. Presentation of Plaque by Earle C. Miller, President ASME Joseph S. Ward, Vice President, Zone I, ASCE.

Acceptance of Plaque by Mayor Lawrence F. Kramer.

11:45 A.M. Dedication Ceremony Concludes.
SPECIAL EVENTS PROGRAM

In Great Falls/S.U.M. Historic District

11:45 A.M. - 4:00 P.M.


2- Tour of S.U.M. Hydroelectric Power Generating Station.

3- Tour of Rogers Locomotive Erecting Shop Restoration.

4- Tour and exhibit at Ivanhoe Paper-mill Water Wheelhouse Restoration.

5- Exhibit at Great Falls Archaeology Lab., 154½ Van Houten Street.

6- Tour of Green Acres Upper Raceway Park under development. (Entrance to park to be site for permanently attaching the National Mechanical and Civil Engineering Landmark Plaque.

At Great Falls Park

11:45 A.M. - 1:00 P.M.

Picnic lunch provided by Curtiss-Wright and City of Paterson for guests of ASME, ASCE and City of Paterson.

At Rogers Locomotive Erecting Shop
(Spruce and Market Streets)

1:00 - 1:30 P.M.

Theatre event preview of “On The Line” by The Learning Theatre.

MAY 20, 1977, MARKING THE 50TH ANNIVERSARY OF LINDBERGH’S FAMOUS “SPIRIT OF ST. LOUIS” NONSTOP TRANS-ATLANTIC FLIGHT WHICH WAS POWERED BY A PATERNON-MANUFACTURED WRIGHT “WHIRLWIND” J5 ENGINE, WAS CHOSEN BECAUSE IT TYPIFIED THE ENGINEERING GENIUS AND ACHIEVEMENTS WHICH TRACE THEIR DEVELOPMENT BACK TO THE GREAT FALLS RACEWAY AND POWER SYSTEM AND MADE PATERNON FAMOUS AS “THE CRADLE OF AMERICAN INDUSTRY”.

330
ACKNOWLEDGEMENTS

The North Jersey Section of The American Society of Mechanical Engineers and the New Jersey Section of the American Society of Civil Engineers gratefully acknowledge the efforts of all the people who cooperated to make the dedication of the Great Falls Raceway and Power System a success.

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

Earle C. Miller, President
Dr. Stothe P. Kezios, President Elect
Robert A. Baker, Vice President, Region II
Arnold E. Pristernik, Chairman, North Jersey Section
Robert G. Lommel, Chairman, History & Heritage Committee, North Jersey Section

THE AMERICAN SOCIETY OF CIVIL ENGINEERS

Leland J. Walker, President
William R. Gibbs, President Elect
Arthur J. Fox, Jr., Past President
Joseph S. Ward, Vice President, Zone I
George F. Flay, Jr., Director, District I
William H. Taylor, President, New Jersey Section
William S. LaLonde, III, Past President, New Jersey Section
Frederick J. Hofmann, President, New Jersey Branch
Myron K. Weller, Past President, North Jersey Branch
Peter A. Di Legge, Chairman, History & Heritage Committee, New Jersey Section

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Dr. R. Carson Dalzell, Secretary
Dean John G. Burke
Prof. J. J. Ermenc
Prof. R. S. Hartenberg
Dr. J. Paul Hartman
Dr. Otto Mayr (Ex-officio)
Maurice Jones

Smithsonian Institution
ASME Staff Liaison

ASCE NATIONAL HISTORY AND HERITAGE COMMITTEE

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John W. Briscoe
G. Brooks Earnest
Emory L. Kemp
Alan L. Prasuhn
John R. Wolfs

CURTISS-WRIGHT CORPORATION

T. R. Berner, President and Chairman of the Board
Arnold Kossar, Vice President & Dir. of Corporate Technology
Dr. Donald Slocum, Executive Director, Corporate Development
Fred Ruport, Former Manager, Experimental Machine Shop
CITY OF PATERSON

Lawrence F. Kramer Mayor

Frank X. Graves, Jr. Council President
Marian Rauschenbach Councilwoman-at-Large
Samuel Hughes Councilman-at-Large
Cyril Yannarelli Councilman-at-Large
Irene DiMarcantonio Councilwoman
Nicholas Deluccia Councilman
Dominick DeMarco Councilman
Martin Barnes Councilman
Raymond Cassetta Councilman

Larry D. Worth Business Administrator
David Stadtmauer Director of Economic Development
John N. O'Malley Director, Division of Redevelopment
William Pascarella, Jr. Director, Department of Public Works
Daniel Malatesta City Engineer
Robert McCrowe Director, Division of Parks
Robert Angelica Parks Foreman
Joe L. Ward Deputy Director, Div. of Economic Development
Stephen G. Warfel Great Falls Archaeologist
Ruth Hirshberg Director, Office of Special Events
Grace George Director, Great Falls Tour Office
Joan Colella Secretary
Henrietta Lieberman Secretary
George Messier Draftsman
Gordon Ash and the Rogers Construction Crew
Victor Luise and the Title X Great Falls Public Works Crew

GREAT FALLS DEVELOPMENT CORPORATION

Joseph Bograd President
Dorothy Jurewicz Corresponding Secretary
Entire Board of Directors

THE LEARNING THEATRE

Irene and Howard Sterling and entire theatre production crew

SPECIAL RECOGNITION

Dr. Russell I. Fries Former Director, Great Falls Historic District
Bruce Cavin Former Great Falls Architect
John Young Visionaries and organizers of Public
group movement to preserve and restore the Great
Falls/S.U.M. Historic District.
Mary Ellen Kramer

SPECIAL THANKS

The Record For cover photograph
The Historic American Engineering Record (HAER) For inside photographs-Figs. 1,2,3,5
Passaic County Historical Society For inside photographs-Figs. 4,8,9
G.K. Livitsanos For inside photographs-Figs. 6,7,10
Congressman Robert A. Roe For arranging U. S. Air Force "Fly Over"
Pat Falano For solo
Victor Palmieri and Kennedy High School Band For Band Music
Rodney Roth & Musician's Local 248 For music at picnic luncheon
Curtiss-Wright Corporation For providing picnic lunch

Francis J. Blesso and Jack R. Stokvis
Commemorative Brochure Authors and
Dedication Ceremony Coordinators
## 1. Name

Historic Great Falls/S.U.M. Historic District Extension (Argus Mill)

and or common

## 2. Location

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## 6. Representation in Existing Surveys

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**Describe the present and original (if known) physical appearance**

This is a proposal to extend the existing Great Falls/Society for establishing Useful Manufacturers Historic District to include the Argus Mill. Directly across the street from several major factories, Argus Mill is a late 19th century mill building.

Historically, the Argus Mill provided a delineation between the S.U.M. industrial facilities to the north and west and the predominantly residential neighborhoods to the east and south. The boundary change brings the Argus Mill into the industrial historic district and establishes a logical border.

The Argus Mill, is a brick warehouse with utilitarian detail and open loft space typical of the individual buildings that comprise the district. This particular 3 1/2-story mill was built of common bond brick in the mid-1870s. The building is essentially rectangular in plan, with a loading entrance at Mill Street, segmental windows at each floor, and a shallow pitched gable roof with gabled front and rear parapets.

The Mill Street entrance (west) relates to the Essex Mill across the street, for which the Argus Mill served as a warehouse. The northerly bay has a door at street level, altered as evidenced by the brick. To the right, the first floor loading bay remains with iron surround and lintel that extends across the entire facade. The second and third floor feature three segmental window openings with lintels formed by two rows of header bricks and limestone sills. Sawtooth brick lines the gable whose parapet is capped by limestone coping. The southwest corner of the building at the second and third floors had collapsed and been rebuilt with masonry blocks by a previous owner.

Both the south and north side elevations have arcades of twelve regularly-spaced segmental windows with the same lintel and sill detail as the front. Windows, originally blind, are open or boarded over. Half windows at the basement also have segmental openings. A brick addition at the center of the rear elevation rises the entire height of the building, housing a stairwell. To the right (north), door openings have been cut into windows; the south bay has its original window openings. Although the brick cornice is severely damaged or missing in some areas, the front and rear gabled parapets add a hint of style to an otherwise utilitarian building.

Inside, the characteristic open clear-span spaces recall the mill's original industrial use as a warehouse for mosquito netting.
8. Significance

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Specific dates: 1876
Builder/Architect: Not known

Statement of Significance (in one paragraph)

The Great Falls/S.U.M. Historic District contains one of the most significant engineering and industrial complexes in the United States. Alexander Hamilton and other supporters organized the Society for Establishing Useful Manufacturers to achieve America's independence from British manufactures and demonstrate her own profitability. With the major water power to be harnessed from the Great Falls of the Passaic River, and the original engineering plan of Pierre Charles L'Enfant, Paterson developed into an important eighteenth and nineteenth century industrial center for cotton, silk, iron and locomotive production. Among the prominent companies in the early days of "Industrial Paterson" was R & H Adams, silk manufacturers who built a brick warehouse, typical of the existing S.U.M. district, at 6 Mill Street for their silk mosquito business.

In 1829 William Adams, father of Robert and Henry, began to weave mosquito netting in New York City. William Adams and Company, which included Robert and Henry, was organized in 1857 and the company bought the old Harmony Mill in Paterson, formerly a cotton factory. By 1864 their entire mosquito net manufacturing process had been transferred to Paterson, William Adams & Co. dissolved, and R & H Adams formed. The Harmony Mill burned in 1869, but Robert and Henry Adams purchased and improved the Essex Mill, belonging to the Colt Estate, in 1871. The Adams brothers expanded their mosquito net operation further in 1874 when they erected a large storehouse -- now known as the Argus Mill -- on Mill Street opposite the Essex Mill (1). According to deed records, the Adams Brothers purchased the property for the mill in 1876, which is more likely the construction date. At that time, the east side of Mill Street was predominantly residential. In 1879, Robert Adams retired; Henry continued the company, retaining ownership of the Argus Mill until 1899 when he sold it to Tisha Gordon.

For over forty years, the Adams warehouse was known as the Gordon Mill. According to Davison's Silk Trade, 1921 and 1927, Henry Gordon was a dealer in spun silk yarns, tram, and organzine (2). In 1941, Gordon sold the property, which has since been called the Argus Mill for the Argus Yarn Company.
9. Major Bibliographical References

1. L. R. Trumbull, History of Industrial Paterson, 1882.

10. Geographical Data

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Verbal boundary description and justification
The original district boundary followed the west curb of Mill Street from Oliver Street to Van Houten Street. By appending the Argus Mill, the boundary juts briefly into the eastern portion of Mill Street properties. The boundary of the Great Falls/S.U.M. Historic District is herein expanded to include the Argus Mill, which

11. Form Prepared By

name/title Len Rothe
organization Paterson Renaissance Organization
date May, 1983
street & number 35 Church Street
telephone 201-523-2042

city or town Paterson
state New Jersey

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

X national  O  state  O  local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

Deputy State Historic Preservation Officer signature

For NPS use only

I hereby certify that this property is included in the National Register

Keeper of the National Register

Attest: date

Chief of Registration
is identified as Block 858, Lot 6 on the current Paterson tax maps.
HISTORIC POINTS OF INTEREST

1. Great Falls of the Passaic River, 72 ft. high. 280 ft. wide, second largest waterfall in Eastern United States

2. S.U.M. Buildings
   a. Remains of 1876 steam and boiler plant
   b. Conduit Gate House. 1906. G.F.D.C. office
   c. Hydroelectric plant. 1914
   d. Field House. 1914. TOUR GUIDE office
   e. Gate House. 1846
   f. Administration Building. c. 1920, Special Events Office

3. Great Falls Park

4. Haines (Overlook) Park

5. S.U.M. upper raceway. 1827-1846. and Upper Raceway Park

GREAT FALLS/S.U.M. HISTORIC DISTRICT - NATIONAL HISTORIC LANDMARKS

6. Ivanhoe Wheelhouse. 1865. provided power for Ivanhoe Papermill, later power for S.U.M. electrical grid

7. Rogers Locomotive Co. Administration Building. 1850.


9. Site of Rogers Locomotive Co. Blacksmith Shop and 1974 archaeological excavations

10. Rogers Locomotive Co. Frame Fitting Shop. 1881. rebuilt on site of old office and storage building

11. Rogers Locomotive Co. Wheelwright Shop. rebuilt 1876, on site of Passaic Paper Mill (1832)

12. Barbour Flax Mill. c. 1860

13. Dolphin Jute Mill complex. 1844-1880. major building. 1880. fourth floor added later

14. Granite Mill. 1881, part of Barbour complex

15. Stony Road, early Indian foot trail developed to connect Little Falls and Paterson industrial district

16. S.U.M. middle raceway. 1792-1802

17. Site of Gram Locomotive Co. Erecting Shop. 1850's. 1974 archaeological excavations


19. Cooke Locomotive Co. Office Building. 1881

20. Hamil Mill. 1873. textile mill

21. S.U.M. Passaic Street Bridge. 1858. H. Miller, architect

22. Hamilton Mill. 1793, part of first brownstone S.U.M. textile mill

23. Franklin Mill. c. 1870. and c. 1920 additions, textile mill, also produced machinery and steam fire engines, locomotives.

24. Essex Mill. 1871-1872. textile complex


27. Harmony Mill. c. 1850. textile mill


29. John Colt House. c. 1865. cousin of Samuel Colt. Second Empire style

30. John Ryle House, c. 1830. Dutch Colonial style

31. Public School No. 1. 1873. oldest standing public school in Paterson

32. Cooke Foundry. 1831-1832

33. “Dublin Springs - No More.” statue of young boy erected over original site of spring, in Garretano-Federici. 1951

34. St. Michael’s Sisters Home. c. 1895. exquisite locally quarried brown stone


36. St. John’s Cathedral. c. 1890. Gothic Revival style,brown stone, rebuilt 1846

37. Pasacc County Courthouse. 1845. Neo-renaissance style, S. Burrell. Reed, architect

38. Paterson City Hall. 1846. Neo-renaissance style, C. Burrell. Reed, architect. Destroyed by 1902 fire and rebuilt 1902-03

39. Old hotel, c. 1830

40. Addy Textile Mill. 1927. Dutch-Federal style

41. Former Post (Hike. 1899. Flemish Renaissance style

42. Paterson City Hall. 1846. Neo-renaissance style, C. Burrell. Reed, architect. Destroyed by 1902 fire and rebuilt 1902-03

43. Old hotel, c. 1830

44. Addy Textile Mill. 1927. Dutch-Federal style

45. Valley of the Rocks

46. Illinois Avenue. 1908. Paterson Renaissance style

47. I.W.W. (“Wobblies”) Paterson headquarters in former “Nags Head” Bar. for Big Bill Haywood during silk strike of 1911-1913

48. Hinchliffe Stadium

ARGUS MILL
6 Mill Street
Paterson, Passaic Co. NJ
2013 Hinchliffe Stadium
National Historic Landmark

1. NAME OF PROPERTY

Historic Name: Hinchliffe Stadium
Other Name/Site Number: City Stadium / ID#4234

2. LOCATION

Street & Number: Maple and Liberty Streets
City/Town: Paterson
City/Town: Paterson
State: New Jersey
County: Passaic
Code: 031
Zip Code: 07512

3. CLASSIFICATION

Ownership of Property
Private: ___
Public-Local: ___
Public-State: ___
Public-Federal: ___
Object: ___

Category of Property
Building(s): ___
District: ___
Site: ___
Structure: ___

Number of Resources within Property
Contributing ___
Noncontributing ___

1. buildings
2. sites
1. structures
1. objects
2. Total

Number of Contributing Resources Previously Listed in the National Register: 1

Name of Related Multiple Property Listing: N/A
4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register Criteria.

__________________________________________  __________________________
Signature of Certifying Official               Date

__________________________________________  __________________________
State or Federal Agency and Bureau

In my opinion, the property meets does not meet the National Register criteria.

__________________________________________  __________________________
Signature of Commenting or Other Official      Date

__________________________________________  __________________________
State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

___ Entered in the National Register
___ Determined eligible for the National Register
___ Determined not eligible for the National Register
___ Removed from the National Register
___ Other (explain): __________________________________________

__________________________________________  __________________________
Signature of Keeper                            Date of Action
6. FUNCTION OR USE

Historic: Recreation and Culture  Sub:  sports facility
Current: Vacant/not in use  Sub:  N/A

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION:  Art Deco

MATERIALS:
   Foundation: Concrete
   Walls: Concrete
   Roof: Terra Cotta
   Other: Asphalt
Describe Present and Historic Physical Appearance.

Hinchliffe Stadium, completed in 1931-32, stands on a hillside above steep bluffs along the west (northwest) bank of the Passaic River in Paterson, New Jersey (the river flows in a north and northeasterly direction at this location), on the southeast corner of Maple and Liberty Streets. (Photograph 1 and Figures 1-3) John Shaw, principal architect of the Paterson architectural firm Fanning & Shaw, designed the blended Spanish Colonial Revival and Art Deco/Moderne styled stadium, based on a 1931 plan by the Olmsted Brothers landscape engineering firm. The period of national significance for this National Historic Landmark nomination is 1932 to 1944 covering the years when the stadium served as a venue for segregated Negro professional baseball.

Setting:

Located on a prominent hill overlooking the city of Paterson, the concrete and tile Hinchliffe stadium building stands out against a background of nineteenth-century brick industrial mill buildings. The stadium commands a sweeping view of the historic mill development of east Paterson along the Passaic River and of the Great Falls of the Passaic to the south. This historic industrial area lies within The Great Falls of the Passaic/Society for Establishing Useful Manufactures (SUM) National Historic Landmark District. The SUM was organized in 1791 to create a new type of American community that would be devoted to industry and promote an end to the United States’ dependence on imported goods. The SUM, the nation’s first planned industrial city, purchased 700 acres above and below the falls of the Passaic and implemented a plan for the layout of the town and the raceway system to capture available water power. Perched on the high ground on the west (northwest) side of the Passaic River, Hinchliffe Stadium borders the existing SUM National Historic Landmark District. Fans seated in the stadium’s bleachers looked out over this vista of the falls, river gorge and Paterson’s industrial heart with hills in the distance.

Immediately northwest of the stadium on Liberty Street stands Public School #5, a large Art Deco institutional building also designed by Fanning & Shaw and built in 1939-40. (Photograph 12) The Hinchliffe Stadium building, with its corners on the points of the compass, fronts northwest along Liberty Street and southwest along Maple Street in the west-side Totowa section of Paterson. In addition to School #5 to the northwest of the stadium, there is a residential neighborhood to the west and industrial buildings to the north.

Constructed into a hillside, the stadium presents three exterior walls that accommodate interior stepped seating decks, forming a bowl open at the lower (southeast) end in a U shape. (Figure 4) The graceful arc of the rows of bleacher seating across the northwest end of the stadium follows the curve of the exterior walls at the north and west corners. The entire building is fabricated of reinforced poured concrete with an applied skim coat (noted as “brush-hammered” in 1932 newspaper accounts, quoted below). Hinchliffe is an open-air stadium with all bleacher seating, although canvas shades were used in early years of the stadium’s history and a more permanent steel-framed cover over the northwest seating sections was added in 1936 (removed after 1964, since it appears in a historic photograph taken after the field was extended in that year). (Figures 5 and 6) Four elevated ticket booth towers and the 1934 addition of the northeast restroom building, each integral parts of the stadium structure, are or were roofed with clay tiles (the clay tile roof of the restroom addition was replaced with red asphalt shingles probably in the 1980s). The open southeast end of the stadium terminates near the

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1 This National Historic Landmark nomination description draws from and occasionally quotes the 2004 National Register nomination for Hinchliffe Stadium, prepared by Flavia Alaya for the Paterson Historic Preservation Commission.
2 For the purposes of this nomination, the term “Negro professional baseball” refers to racially segregated professional baseball teams, whether within the Negro League framework or as independent non-league teams. During the period of racial segregation in professional baseball, Negro teams often moved in and out of official Negro League affiliation but were still considered professional baseball teams. Additionally, all Negro professional teams played non-league “barnstorming” or exhibition games throughout the baseball season (in addition to their league scheduled games if they were league-affiliated) in order to remain financially viable.
edge of the bluffs above the Passaic River. A chain link fence currently defines the end of the stadium. In 1963-1964 fill was added at the southeast end of the stadium tract, so that the track could be extended and lengthened from 1/5 mile to ¼ mile, resulting in removal of the original concrete southeast end wall.

**Exterior Elevations:**

The northwest exterior stadium wall along Liberty Street stands in stepped 10-foot sections, each approximately 7-10 feet tall, following the rise of the street toward the north entrance. (Photograph 2) Sections divide into three panels by two 3-foot-wide pilasters between a raised base band and a frieze band. Concrete coping caps the wall sections. Between the wall sections, gabled parapets rise above the top of the walls. Each parapet is capped with terra cotta tile coping. A total of seven 8-foot-wide parapets (described as “pylons” in a 1932 newspaper account, quoted below) have raised, incised edges to give the appearance of ashlar stone blocks or quoins. The street-facing surface has a recessed arch with raised blocks above forming a three-part voussoir with keystone. Within the arch of each parapet is an inset round terra cotta tile with a yellow molded relief tile featuring an Olympic athlete (relay, javelin, hammer, or discus). A metal flagpole is anchored to the back wall of each parapet. A tall chain link fence runs along the top of the entire length of the northwest wall. This chain link fence is not original to the construction of the stadium, but does show in several 1940s photographs of midget car races in the stadium. However, exact dates for the photographs are not currently available so it is unclear if the fence was in place within this nomination’s period of significance ending in 1944. Chain link fencing was part of the original construction atop the tall southeast wall, but was removed in 1963-64.

The southwest exterior wall along Maple Street follows the same pattern but with 36-foot wide wall sections. Seven raised gabled parapets, each with an attached flag mast, separate the wall panels. (Photograph 3) The wall sections step down toward the south corner with the relatively steep fall of the street, reaching a height of approximately 30 feet on the final section. An added concrete ramp for handicapped access to the bleachers covers the third section from the south corner. A chain link fence tops the wall to approximately halfway down the length where the height of the wall precludes the need for protective fencing. Six paired windows pierce the lower four sections of the southwest wall (two windows per panel). The windows light the locker rooms located under the southwest side seating decks. The southern-most section marks the end of the southwest wall and the south end of the bleachers. A larger gabled parapet terminates the wall. This parapet is approximately 40 feet tall with raised corner bands incised to appear as ashlar quoins that edge a rectangular recessed center panel with a pointed top embellished with large dentils. This parapet wall panel has two windows. Its roof line is gabled with flat end extensions, capped with terra cotta tile coping. A poured concrete chimney with corbelled rim rises against the south corner of the parapet and seating deck, extending to approximately 4 feet above the parapet peak. An approximately 6-foot high concrete wall segment with a door extends about 5 feet southeastward from the chimney stack. The door served as the athletic entrance. A two-part chain link fence spans the space from the wall to a concrete block maintenance building constructed about 1979 that stands along the south end of Maple Street. The vehicle access at the athletic entrance was altered when the maintenance building was constructed to the south of the main stadium. Currently the vehicle access to the field is between the maintenance building and the south end of the stadium.

The maintenance building is a one story elongated rectangular concrete block building with two garage door openings in its northwest end wall. The roof is flat and the exterior (Maple Street) wall is painted white, while the interior (field) walls are painted black. This building was constructed about 1979, since architectural plans for it, dated December 4, 1978, by John Evans Architects are filed with the Facilities Department, Paterson Board of Education.
The southeast end of the stadium property is defined by a chain link fence. Originally the stadium’s southeast end terminated with a concrete retaining wall. (Figure 7) This was removed in 1963-1964 when the track was extended to accommodate a ¼-mile oval. Earth and rubble fill was used to create the extended area for the field and track.

Dense vegetation currently obscures the northeast wall of the stadium. It was never a principal elevation and consists of a plain poured concrete surface, without the gabled parapets, flag poles and decorative tile work. (Figure 7) The 1934 restroom addition marks the north end of this wall.

**Entrance Area:**

Two towers housing ticket booths define the spectators’ entrances, at the west corner (W1 and W2), and two towers located at the north corner (N1 and N2) (Figure 2). These entrance towers form integral sections of the stadium wall. Each ticket booth occupies a rectangular 1 ½ story tower with a hipped roof covered with terra cotta barrel (Spanish) tiles. (Photographs 4 and 5) Surviving pieces of roofing tiles that have fallen to the ground are stamped “Imperial,” produced in Chicago by the Ludowici-Celadon Corporation. The outer wall of each tower has cast stylized pilasters which extend from a base to a frieze. The pilasters are incised with parallel horizontal lines to resemble joints between stone quoins. A frieze band and ogee cornice molding top the pilasters. Between the pilasters is a shallow recessed arch decorated with a terra cotta bas relief sculpture featuring an Olympic figure located near the top of the arch. Beneath that are pairs of ticket windows with decorative vertical cast iron bars. Spanning the tops of the pair of windows is a terra cotta mosaic frieze with inlaid small square tiles and blue-glazed tiles with the word “Tickets” in yellow tile over each window and decorative molded yellow terra cotta tile in the middle. Gates adjoining each ticket booth consist of heavy iron/steel vertical spikes with diamond-interlocked wire panels behind. Concrete chamfered attached columns with flat capitals support the gates. Each entrance gate has an inset concrete panel above with incised block capital letters identifying “HINCHLIFFE STADIUM.” Gates connect at each corner with a curved wall interrupted with vertical and horizontal bands defining rectangular recesses. Flat concrete coping caps the wall. Attached to the east side of the northeast wall ticket booth (N2) is a poured concrete hip roofed building that housed the men’s and women’s restrooms. The building, added in 1934, and designed by the architectural firm of Fanning and Shaw who did the original design of the stadium (Figure 8), forms a continuous section of the stadium’s northeast wall. The restroom addition’s hipped roof is covered with red asphalt shingles and has extensive fire damage that occurred after the stadium was closed in the 1990s. The original roof covering according to the 1934 architectural blueprints was terra cotta tile like the other roofing material used in the stadium.

**Inside the Stadium:**

The decorative pattern of the wall and parapets (except the molded decorative tiles) described for the exterior walls repeats on the stadium interior surfaces.

Ticket booth operators accessed the booths from inside the stadium at the upper deck (Liberty Street level) through a three-part center door with transom set within a recessed arch in the wall of the booth structure. The interior space of the two booths fronting onto Liberty Street (northwest wall – N1 and W1) are at ground level, while in the northeast (N2) and southwest (W2) booths ticket sellers used concrete steps to descend to the ticket windows at street level. (Photograph 6) Trap door openings in the ceilings provide access to the upper (attic) area of the booth buildings. Moderne style porcelain wall lamp fixtures are still intact in the north entrance Liberty Street booth (N1).
Upon entering the stadium from either the West or North entrances, patrons pass through metal pipe railings and proceed toward the seating decks along a curved wall leading to steps down to the upper deck level or by steps along the northwest wall down to the concession area. All steps throughout the stadium are concrete with metal edge strips incised with crosshatches to prevent slipping.

A cast stone relief sculpture, of a gladiator located near entrance tower N1 is the work of Italian-born sculptor Gaetano Federici who was regionally prominent and lived in Paterson. The relief sculpture was added in 1936. In addition, the interior wall near the concession stand was embellished with two bronze plaques, one honoring Eleanor Egg, a national champion runner, dedicated at the same time as the stadium in 1932. The other plaque was added in 1934 honoring Al Vande Weghe, a world champion swimmer and Olympic Silver Medalist. These bronze plaques were stolen from the stadium, but both missing plaques have been recovered and returned to the Paterson Board of Education and are currently in their storage facility, according to information provided by the New Jersey SHPO.3

The large enclosed concession stand, added in 1934, according to a design by Fanning and Shaw Architects, spans the upper stadium deck recessed under the northwest stadium wall, with six service openings. (Photographs 15 and 16) An access door is located in the base of the gabled parapet on the north end of the concession area. The concession area extends southeastward into the seating space with a concrete terrace on block foundation surrounded with metal pipe railing. At the west and north ends of the concession stand are two rooms, each with a single high ventilation opening. Doors reinforced with woven vertical and horizontal iron straps provide access to each of the rooms. According to the architect’s plans, each of these rooms had a sink against the back wall.

Just southeast of the north entrance stands the restroom addition, also a Fanning and Shaw design constructed in 1934. (Figure 8) Incised horizontal lines creating bands embellish the walls of the restroom building. A fire in the late 1990s or 2000s, after the stadium was closed in 1996, damaged the restroom section, leaving holes in the roof and charred rafters. Each room has a door and a high rectangular window in the southwest wall, three high windows in the northeast wall, and one high window in the end wall (southeast and northwest). Above each door is an opening covered with woven horizontal and vertical iron straps. Skim-coated concrete, painted white, forms the interior walls. Wall board over metal lath constitutes the ceiling. As described, the exterior architectural features have been damaged by weathering and vandalism but remain primarily intact; however, its interior and roof structure have been mostly lost due to the fire and weathering.

The curved, stepped concrete seating decks divide into sections through the use of low concrete walls and access stairs approximately 3 feet wide. Chain link gates open from the field approximately 2 feet above the track level. Originally steps led from the track to the gates but they were removed in 1934 because they obstructed racing motorcycles.4 Other 1934 improvements noted in newspaper reports and in Fanning and Shaw’s architectural drawings, included the extension of stadium seating along the “left field”.5 This added seating completed the arc of bleachers along the southeast side of the field. Prior to the construction of the additional bleacher seating at the southeast (left field) end of the stadium, the contour of the stadium continued to the southeast end with ramped packed earth, covered with sod. Portable wooden bench seating

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3 Flavia Alaya, PhD, “Report on Viewing Two Frederici Plaques, Eleanor Egg and Albert Vande Weghe, on behalf of Hinchliffe Stadium and Paterson Public Schools, 31 July, 2003,” provides additional information about the plaques, their history, loss and recovery.

4 Paterson Evening News, May 23, 1934, cited in Connolly & Hickey, “Hinchliffe Stadium, Paterson, New Jersey: A National Black Baseball Venue,” (Trenton: New Jersey Department. of Environmental Protection/Natural and Historic Resources/Historic Preservation Office, March 2011), Annotated Black Baseball Inventory. All newspaper citations in this NHL documentation are taken from this Connolly & Hickey report unless otherwise indicated.

5 Paterson Evening News, August 28, 1934.
accommodated large crowds when needed at this end of the stadium. Currently, bleacher seats appear to be fiberglass on wood frames, installed in 1963-1964, replacing older wooden bench seats. Reports variously claimed the stadium could seat from 7,000 to 9,500 to as many as 12,000 spectators with temporary bleachers. All seating is presently uncovered. However, historic photographs show the northwest end sections of bleachers sheltered by a steel framed canopy added in 1936, according to an article in the Paterson Evening News.⁶ Although no longer present, the steel-framed canopy survived at least until 1963-1964, after the field and track were extended. The canopy appears in a photograph which shows the extended field without the post-1973 maintenance building/garage. A molded concrete block press box on a raised metal frame stands on the southwest wall interior above the upper southwest seating deck. (Photograph 11) The press box structure was added to the stadium probably in the 1960s, but replaced an earlier wooden press box (probably dating from 1937) which shows clearly in a photograph taken before the field was extended in 1963. (Figure 9) The current press box is in the same location and configured similarly to the earlier one.

Teams played night games at Hinchliffe almost from the start using portable arc lights brought in by visiting teams. The date that permanent lighting was installed in the stadium is not known for certain, but newspaper stories suggest 1935. The Black Yankees played their first night game at Hinchliffe on August 15, 1935, according to the Paterson Evening News.⁷ Photographs from the 1940s show poles with lights, which appear to be permanent. No stadium lighting fixtures are currently in place.

On the Maple Street side of the stadium locker rooms for home and visiting teams, showers, restrooms and a boiler room occupy the space below ground level and beneath the stadium’s southwest seating deck. (Figure 10) A long corridor extends from the south entrance westward along the file of rooms to the end of the interior space. Access doors enter from the south end wall of the seating deck, opening to a passageway which runs along the interior side of the locker and shower rooms. Another access door leads to the locker area corridor directly from the track, just southeast of the track’s curve at the west corner. The underside of the stepped deck forms the ceilings for the lower level locker area. (Photograph 17) The rooms are variably sized, and contain relatively open space with little equipment remaining other than urinals. Shower stalls are intact but no visible plumbing fixtures remain. (Photograph 18) Six-light windows in the interior wall between the locker rooms and the corridor provide borrowed light from the exterior windows along Maple Street to illuminate the corridor. The rooms on the interior side of the corridor, under the lower seating rows provided storage space.

A quarter-mile track encircles the field with the stadium seating decks wrapping around the upper (northwest) end and sides. The curved ends of the track are slightly flattened, giving the track and field a distinctive shape. A section of straight track at the south corner departs from the oval to create a 100 yard straightaway. The running track, originally a 1/5 mile cinder track and extended to ¼ mile in 1963-1964, is currently covered with degraded composite material. The track was widened in 1934 and improved with new surfaces at various times over the course of its history.

The stadium appears never to have had true below-ground recessed dugouts. Instead, players from each team sat along the edge of the track in shelters with a roof and side walls, open to the track. They show clearly and in use during a football game in a photograph from 1932, shortly after the stadium was completed. (Figure 7) The dugouts, as they were referred to in numerous newspaper stories, survived at least into the late 1940s or early 1950s, where they appear behind safety padding in photographs of midget car racing from that era. Currently, the dugout structures are gone, but their locations are marked by a raised stepped parapet section of the wall separating the track from the stadium seating in the curve of the north and west corners.

Coarse asphalt currently covers the field oval inside the track, laid prior to the 1980s application of Astroturf (most of which is now removed). Originally grass covered the field. The baseball infield occupies the north corner of the field since 1964, consisting of a round pitcher’s mound, hexagonal home plate area, and three triangular areas for first, second, and third base, all of which are open ground exposed through the asphalt and held within wood frames. The original design placed the ball diamond symmetrically within the upper (northwest) curve of the stadium. Pits for long jump and pole vault remain in the surface of the southeast end of the field, as do a scoreboard. The open southeast end of the field terminates with a chain link fence, now extensively overgrown with trees that block the once open vista of east Paterson from the stadium seats. In the original 1932 construction a continuous concrete wall enclosed the southeast end of the field. Other renovations were made to the stadium in 1983, including the application of Astroturf to the field and cleaning and repair of spalled and damaged concrete of the stadium building.

When the stadium was completed in the summer of 1932, the Paterson Evening News on Thursday, July 7, 1932 reported on its appearance, quoted in full: [note that the article refers to the sides of the field as north, south, east and west rather than actual compass points which correlate to the corners of the stadium and field]

Extending along the entire frontage of Maple and Liberty Streets and forming a part of the stands is a concrete wall averaging from seven to ten feet high above grade, cast in sections with recessed brush-hammered panels and surmounted by a concrete coping. Interspersed between these sections are concrete pylons, seven on each street, four feet wide and running up about three feet six inches higher than the wall and surmounted with a red terra cotta coping. In the face of each pylon is a circular colored tile plaque, two feet in diameter, illustrating different ‘sports.’ At the back of each pylon and extending twenty-five feet above the top is a steel flag pole surmounted with a gilded ball.

Along the east and south sides a plain reinforced concrete wall over seven feet high serves to enclose the balance of the Stadium.

For the speedy sale of tickets and the rapid handling of [a] large number of people, ample provision has been made at the northeast and northwest corners of the structure by enclosing an area of approximately sixteen hundred square feet at each corner and erecting in each two concrete ticket booths, each ten feet by sixteen feet, and having a red Spanish tile roof. The sides have brush-hammered panels and colored tile plaques over the windows. From these areas access to the stands is gained by ample ramps and steps.

The stands are made up of twenty-two sections designated as upper and lower stands. The lower stands have sixteen sections of fourteen rows each and the upper stands six sections of fourteen rows each. All stands are reinforced concrete construction surmounted by wood rails for seats, and, with the exception of five sections over the west, or Maple Street, side are built on solid ground. Under the five sections on Maple Street, provision is made for dressing rooms, locker rooms for local and visiting teams, shower and toilet rooms for players, public toilet room for men and women, and boiler room.

The arena, or playing field, has been laid out to give the widest possible range for football and track activity. Generally, it is bounded on the west, north and part of the east sides by a concrete wall about four feet high, this wall acting as the front wall of the stands. The balance of the east side is formulated by a sloped sodded bank [in 1934 this sodded slope was filled with concrete seating to match the rest of the stands] and the south end of the field is limited by the fence wall and backstops.
A cinder track, twenty feet wide, one-fifth mile in length, circles the field, the outer edge being five feet from the field wall. The westerly side of the track has been extended southerly about seventy feet beyond the southerly wall to give a straightaway course for 100-yard dash and hurdle events.

The baseball diamond is laid out on the long axis of the field, second base being about fifteen feet north of the short axis. The home plate is about sixty feet south of the north field wall, and the right field foul line measures 330 feet from the home plate to the field wall. The distance from the home plate to the backstop on the south wall is 335 feet.

The football field is also laid out on the long axis of the field, the goal posts at the north end being fourteen feet north of the home plate as shown on the baseball diamond, or forty-six feet south of the north fence. The south goal post will be approximately the same distance north from the south wall. The sideline will be approximately eighty feet east and west of westerly and easterly field walls respectively.

The entire field has been graded to fourteen catch basins located at intervals along the inside edge of the track to insure proper drainage and with the exception of the base runners’ lines, the pitchers’ and catchers’ boxes, which are of clay, has been sodded and seeded.\(^8\)

Assessment of Integrity:

Although the stadium is in deteriorated condition, it clearly still portrays the description of its as-built condition as written and photographed in 1932, and throughout its historic association with Negro professional baseball. Major character-defining alterations came early, in the 1930s, and predominantly in 1934 with the addition of the restroom building, the concession stand, the remaining seating along the southeast wall, and widening of the track. The changes reflect the use of the stadium as an entertainment venue that was subject to the needs of shifting business models. The stadium retains its setting on the banks of the Passaic River, overlooking the Great Falls and the industrial heart of Paterson, the same commanding view that stadium patrons would have seen historically. It retains most of its original materials, including its reinforced poured concrete structural composition, clay tile roofing (except for the restroom building), and ornamental tile mosaics. Its distinctive form is intact, a unique design that fit the stadium into a tight piece of urban land. Thus Hinchliffe readily evokes the feeling of and association with the events that occurred there throughout its historic role in the larger nationally significant story of racial segregation as expressed through Negro professional baseball. Moreover, Hinchliffe Stadium retains integrity of location and setting since its surroundings remain largely unchanged. The Stadium’s design, materials and workmanship survive intact and clearly impart the original and historic appearance and construction of the building. Although years of vacancy and vandalism have damaged the building, it remains as one of the most intact, if not the most intact of the few remaining stadiums that retain important historical integrity, associated with Negro baseball. Hinchliffe is distinctive, not only because of its unique design, but because it retains its entire physical plant, rather than just a field or lot where games were played. The ultimate test for integrity for Hinchliffe Stadium is whether members of the New York Black Yankees, or Newark Eagles, Cuban Stars, Bacharach Giants, Pittsburgh Crawfords, or any of the other teams that played there, or the spectators, or participants in the other sporting events of the 1930s would recognize the place if they were able to return. Undoubtedly they would. Standing high in the stadium, near the concession stand, looking out over the empty seats and field, and beyond to the vista of East Paterson, one can imagine hearing the crack of the bat and cheers in the stands; feel the bustle of activity around the concession stand, and the excitement and drama taking place on the field against the scenic vista backdrop.

To be sure, Hinchliffe Stadium hosted many sports and entertainment attractions in addition to Negro baseball. These other activities have their own stories not told here (see 2004 National Register nomination). Some of these other sporting events such as automobile, midget car, and motorcycle racing necessitated some of the changes to the stadium either during the period of significance, or in more recent times. Keeping the stadium active and profitable was a business that was usually successful for the City of Paterson, thus accommodations were made as needed throughout the history of the stadium so that it would remain successful. Most of the major additions and changes occurred during the period that Hinchliffe Stadium was nationally significant for its role as a host to high quality Negro professional baseball play.

**Resource Count:**

1 contributing building (stadium with attached historic and non-historic additions, including the concession stand, restroom addition, added seating, all from 1934, and the current press box from the 1960s)

1 contributing structure (track and field, including widened track from 1934 and extended track from the 1960s)

1 non-contributing building (garage/storage building, added about 1979)\(^9\)

Not counted – small-scale elements such as fences and the scoreboard. The current scoreboard appears to date from the 1960s, when the field and track were extended. Some of the fencing associated with the entrance areas and along the tops of the stadium walls dates from the 1930s and ‘40s. The fence along the southeast end of the field was installed at the time of the extension of the track and field.

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\(^9\) The 2004 National Register nomination for Hinchliffe Stadium notes 1 contributing building and 3 non-contributing structures. The non-contributing resources are not described, so it is unclear what they are and whether they are still present. One of the non-contributing properties may have been the garage/storage building, which is noted as a non-contributing building in this document. Another resource may have been the press box, which is not counted as an individual resource in this document as it is attached to and thus part of the main stadium building.
8. STATEMENT OF SIGNIFICANCE

Certifying official has considered the significance of this property in relation to other properties:
Nationally: X  Statewide:  Locally: 

Applicable National Register Criteria:  A X  B X  C D

Criteria Considerations (Exceptions):  A  B  C  D  E  F  G

NHL Criteria:  Criterion 1

NHL Theme(s):  II. Creating Social Institutions and Movements
  4. recreational activities

Areas of Significance:  Entertainment/Recreation; Ethnic Heritage – Black

Period(s) of Significance:  1932-1944


Significant Person(s):  N/A

Cultural Affiliation:  N/A

Architect/Builder:  John Shaw (Fanning & Shaw); Olmsted Brothers

Historic Contexts:  XXX. American Ways of Life
  E. Ethnic Communities
  XXXIV. Recreation
  A. Sports
  2. Baseball
State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.

Statement of Significance

Hinchliffe Stadium in Paterson, New Jersey, is nationally significant under National Historic Landmark Criterion 1 for its role in the history of Negro professional baseball in twentieth-century segregated America.10 The national significance of Hinchliffe Stadium is developed through National Historic Landmark Theme II: Creating Social Institutions and Movements, Subtheme 4: recreational activities. Built in 1931-32 as the Great Depression deepened and used during the era of “Jim Crow” segregation, Hinchliffe Stadium is an outstanding example of an athletic facility that served as a Negro professional baseball venue and home field for an extended period of time. Additionally, Hinchliffe Stadium hosted numerous Negro National League (NNL) games, considered by baseball scholars to be the premier Negro major league from the second half of the 1930s through the 1940s, including NNL season opening games in 1936 and 1937. It is through the strong association of Hinchliffe Stadium with Negro professional baseball as it operated within the context of institutionalized segregation of African-Americans in the United States by which the stadium gains national significance.

After Congress dismantled the post-Civil War Reconstruction programs in the 1870s, institutionalized segregation of African-Americans in accommodations, transportation, education, and entertainment was codified into law – known as “Jim Crow” laws – in the South and in many cases as unwritten law in the North. Upheld as constitutional by Federal courts and with Congress unwilling to step in, segregation of blacks in American society became the generally accepted norm. The establishment of primarily black-owned businesses and institutions, like Negro professional baseball teams and leagues, provided needed services and entertainments to the segregated African-American community and were for many a source of race pride. Negro professional baseball developed in response to the segregation of blacks, by “gentlemen’s agreement,” from major and minor league professional baseball in the 1890s, and grew to include both independent professional teams and Negro league affiliated teams. By the late 1930s, most professional black baseball was played within the league framework, although exhibition or “barnstorming” games, played outside the league game schedule, remained a financial necessity for all black teams.

While the bulk of Negro professional baseball games were played “on the road,” few teams owned their own ball field or even called any one stadium “home,” largely due to the high cost of ownership and lease agreements. The New York Black Yankees, whose name at least associated them with Yankee Stadium (demolished 2009), aspired to play at the major league stadium because of its potential to attract larger crowds and yield higher receipts. But the high rent charged at Yankee Stadium limited its use prior to 1939 to occasional high-profile exhibition games and forced Black Yankees owner James Semler to seek a more reasonably-priced home field. The Black Yankees played as the Hinchliffe Stadium Saturday home team from 1933-1935 while still an independent (non-league affiliated) team and as a Negro National League (NNL) franchise in 1937 and 1942. The NNL New York Cubans (Cuban Stars) were the Saturday home team at Hinchliffe in 1936, while the Dyckman Oval in Brooklyn served as their weekday home field. In 1941 the NNL Newark Eagles played as the Hinchliffe Saturday home team and shared the home field with the Black Yankees in 1937 and 1942. Hinchliffe Stadium hosted numerous Negro professional baseball games from its opening season in 1932 through 1944 and was a venue for regularly scheduled Negro National League games featuring Negro teams, whether within the Negro League framework or as independent non-league teams. During the period of racial segregation in professional baseball, Negro teams often moved in and out of official Negro League affiliation but were still considered professional baseball teams. Additionally, all Negro professional teams played non-league “barnstorming” or exhibition games throughout the baseball season (in addition to their league scheduled games if they were league-affiliated) in order to remain financially viable.

10 For the purposes of this nomination, the term “Negro professional baseball” refers to racially segregated professional baseball teams, whether within the Negro League framework or as independent non-league teams. During the period of racial segregation in professional baseball, Negro teams often moved in and out of official Negro League affiliation but were still considered professional baseball teams. Additionally, all Negro professional teams played non-league “barnstorming” or exhibition games throughout the baseball season (in addition to their league scheduled games if they were league-affiliated) in order to remain financially viable.
league-affiliated teams beginning in 1935. While the U.S. involvement in World War II (1942-1945) significantly impacted team rosters, war-time industrial employment served to boost Negro baseball profits. In the New York/New Jersey area, teams like the Black Yankees shifted to play more games at Yankee Stadium, reducing the number of appearances at smaller venues like Hinchliffe Stadium. In October of 1945, the signing of Jackie Robinson to the Brooklyn Dodgers initiated the integration of professional baseball and brought the era of segregated Negro professional baseball to a close. No black professional baseball teams played at Hinchliffe Stadium after 1944 and most teams had disbanded after 1948.

Initially called City Stadium, Hinchliffe Stadium was constructed as a municipal stadium by the City of Paterson, an industrial city largely populated by European immigrant laborers. Like the larger northern industrial cities of New York, Philadelphia, Pittsburgh, Chicago, Detroit, and many other smaller cities, Paterson also included a small, but growing population of African-Americans, the result of several waves of the “great migration” from the South beginning about 1915 through the 1940s. In addition to Negro professional baseball games, Hinchliffe Stadium also hosted local (integrated) high school football and baseball games, track and field meets, minor league and semi-pro baseball and football, boxing, motorcycle and midget car racing, as well as entertainments and rallies.

Current research has identified 188 venues historically associated with Negro professional baseball during the era of racial segregation in the United States. Of those, only 31 venues are still extant. Based upon the currently available research, nine of the extant venues (including Hinchliffe Stadium) are considered potentially significant within this thematic context because of a documented association with Negro professional baseball and historical integrity to the period of use. The documentation of Hinchliffe Stadium through this NHL nomination demonstrates that Hinchliffe Stadium is an exceptional example of a Negro professional baseball venue for its relatively long association with Negro professional baseball, particularly at its highest level of play within the Negro National League, and for its historical integrity to that period of use. Because there were regional differences within the United States in the character of racial segregation as it applied to recreational venues – for example segregated seating in the South – and in team and Negro League associations – Negro National League and Negro American League in the North and Midwest, Negro Southern League in the South – within the Comparative Sites category Hinchliffe Stadium represents a Northern venue with significant high quality of play associated with the Negro National League.11

The period of national significance for Hinchliffe Stadium covers the years the stadium served as a venue for segregated Negro professional baseball, 1932-1944. The period begins in 1932 with the first game of Negro professional baseball at the stadium, featuring future National Baseball Hall of Fame inductee John Henry “Pop” Lloyd and the independent Bacharach Giants, continues through the 1930s with its use as a home field by three NNL teams and increasing frequency of games including NNL scheduled games, through the declining years of the late 1930s and early 1940s, and ending with the 1944 season when the recently integrated Paterson semi-pro team, the Uncle Sams, played at least ten games against NNL and NAL teams.12

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11 Connolly & Hickey, “Historical Significance Investigation…,” p. 54, citing Neil Lancot and Lawrence Hogan: “Negro League scholars such as Neil Lancot, in Negro League Baseball: The Rise and Ruin of a Black Institution, and Lawrence Hogan, in Shades of Glory, state that the NNL and NAL were considered the “Major” Negro leagues. As Lancot notes, “Although cities such as Birmingham and Memphis had been occasionally profitable, the urban centers of the north, midwest, and upper south had always been the backbone of the industry…” Hogan notes…“From 1933 through 1948 the strength of Negro League baseball was in the east in the Negro National League and on a similar although in the judgment of most historians of the Negro league game, slightly less high quality of play, in the west in the Negro American League after 1937.”

NHL Theme II: Creating Social Institutions and Movements

The rise and fall of black professional baseball provides a window into several major themes in modern African American history, illustrating the initial response to segregation, the subsequent struggle to establish successful separate enterprises, and the later movement toward integration.13

Separate African-American enterprises such as Negro professional baseball began as a response to the post-Reconstruction establishment of strict social segregation of blacks, primarily in the southern states in legal terms, but tacitly sanctioned in the northern states. Congressional action – and inaction – and state and Federal courts reinforced racial segregation. Among the most pivotal was the U.S. Supreme Court ruling in *Plessy v. Ferguson* (1896) on a Louisiana law that required separate railroad cars for blacks and whites. This ruling effectively legitimized the “separate but equal” foundation of the “Jim Crow” era. As the first wave of the “great migration” of blacks from the South to northern industrial cities began about 1915 and successive waves followed in the 1920s through the 1940s, increased segregation in the North followed as well. Segregation in education, transportation, commercial services, and entertainment venues became the accepted norm throughout much of the United States, thus black-owned businesses catering primarily to black consumers were seen as the way toward “economic advancement, self-help, and racial solidarity.”14 Following this trend, the previously semi-integrated professional baseball world shifted to segregated teams beginning in the 1890s and was completely segregated, by “gentlemen’s agreement,” by the turn of the century.15

Historically there were differing views within the African-American community about developing a separate black America parallel to white American society, expressed primarily in the writings and activities of Booker T. Washington and W. E. B. Du Bois. Washington suggested that blacks would prove their worthiness through education, thrift and industry, and success within the segregated community. Du Bois’ more activist approach to segregation, through the establishment of the Niagra Movement in 1905 and later the NAACP (1909), espoused a more direct goal of integration via Federal and judicial intervention. But by the early 1930s, Du Bois too was suggesting that high-quality separate black business and social institutions were necessary to advance the African-American people until integration could be achieved.16

The dramatic increases in African-American populations in northern industrial cities beginning around 1915 and continuing through the 1920s and 30s facilitated development of Negro professional baseball. Though most black teams marketed primarily to their urban black fan base, there was a significant reliance on exhibition games featuring white semi-professional and sometimes professional team opponents for their ability to attract larger mixed audiences.17 Still, the early Negro leagues that organized in 1920 and 1922, which by definition featured all-black teams (including some Cuban and Puerto Rican blacks), were initially successful. Their success was short-lived, however, as the Great Depression of the early 1930s impacted large segments of the nation’s laboring population, hitting African-American workers hardest. The resultant loss of the core fan base, as well as the economic disaster of the depression, caused the collapse of these early Negro leagues and Negro professional baseball returned to its pre-league structure of unaffiliated teams playing exhibition games against both black and white opposing teams.18

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15 In the North, Midwest, and California in particular, some amateur and semi-professional baseball teams/leagues remained integrated to some degree. However, professional baseball – both the major and minor leagues – was fully segregated by “gentlemen’s agreement.”
17 Lanctot, p. 4.
18 Ibid., p. 9.
Like other northern industrial cities, the City of Paterson, New Jersey was hit hard by the Great Depression. Using bonds and some New Deal funds, Paterson built its City Stadium, later known as Hinchliffe Stadium, in 1931-32 to bring hope and relief in the form of sports and entertainment to the city’s struggling, largely immigrant population as well as the growing black community. Beginning with its initial short season in 1932, the stadium was leased out to baseball teams, or to promoters who booked the teams, both black and white, as well as other sports, in order to make it a “paying proposition.” By 1934 the unaffiliated New York Black Yankees were considered, according to local newspaper sources, an important draw of crowds to the stadium. 19

Hinchliffe Stadium served as a home field variously for the New York Black Yankees, who joined the second Negro National League (NNL) in 1936, and NNL teams the New York Cubans and the Newark Eagles, and as a venue for regularly scheduled NNL games and exhibition or barnstorming games. The home teams and their various opponents brought with them to the Hinchliffe field Negro professional baseball star players including John Henry “Pop” Lloyd, Josh Gibson, Raleigh “Biz” Mackey, Oscar Charleston, Raymond Emmet Dandridge, Martin Dihigo, Buck Leonard, Willie Wells, George “Mule” Suttles, Leon Day, and James “Cool Papa” Bell, all of whom were later inducted into the National Baseball Hall of Fame. Local future Hall of Famers, Larry Doby and Monte Irvin, were said to have been scouted by the NNL Newark Eagles at Hinchliffe Stadium.20

Negro professional baseball, particularly within the framework of the Negro National League (1933) and Negro American League (1936), reached its zenith during World War II as war-time employment boosted incomes in the African-American workforce. But the 1945 signing of Jackie Robinson by the Brooklyn Dodgers and his April 1947 debut in major league baseball inaugurated the rapid decline of Negro professional baseball as “the fans wanted to see black players in the majors.”21 Robinson’s entry into the previously all-white National League sent shockwaves along the “color line” that had been drawn by racial segregation in America more than 50 years earlier. Three months after Robinson’s 1947 debut with the Dodgers, Larry Doby, a former Paterson resident who played high school football and baseball as well as semi-pro and professional baseball at Hinchliffe Stadium, broke the color barrier in the American League. Though Robinson and Doby’s entrance into the white major leagues was not the first breakthrough in the deconstruction of institutionalized segregation, the integration of baseball, “America’s pastime,” was a dramatic turning point in American history.

History and Context – Segregation, Baseball, and Hinchliffe Stadium

*The American Negro Confronts Racial Segregation*

African-American social historian John Hope Franklin, much of whose research was contemporary with the last decades of segregation in America, wrote: “The forces that have operated on the Negro population during the last three centuries have been of such nature as to create a distinctly separate Negro world within the American community.”22 That separateness began with the institution of slavery “with its basic assumption of an inherent difference between the white and Negro population.”23 There was little respite following emancipation through

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20 Several sources reported that Larry Doby claimed he was scouted at Hinchliffe in his 1998 Hall of Fame speech. This appears not to be the case since the claim does not appear in the transcript of Doby’s speech. Dr. Lawrence Hogan, after an interview with Monte Irvin, notes that “Monte Irvin personally confirms that his tryout for the Newark Eagles took place at Hinchliffe where he met for the first time two players who were to be lifelong friends, Josh Gibson and Buck Leonard. Monte states that Larry Doby’s try out took place at Eastside Park, Paterson’s other professional baseball field.” (Connolly & Hickey, “Hinchliffe Stadium…A National Black Baseball Venue,” pp. 22-23.)
23 Ibid.
the post-Civil War period of Reconstruction, particularly in the southern states, despite two Constitutional amendments and the Civil Rights Acts of 1866 and 1875. After 1877, with the dismantling of Federal Reconstruction policies, “Jim Crow” segregation laws began to take hold in the South.

“Separate but equal” became the basic framework of Jim Crow legislation. Between 1887 and 1892, Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Maryland, North Carolina, Kentucky, South Carolina, Tennessee, and Virginia all enacted new segregation and discrimination laws. The Jim Crow laws differed in small particulars, but maintained a consistency in requiring separate accommodations for blacks and whites in transportation and most other public accommodations including hospitals, hotels, insane asylums, restaurants, saloons, prisons, theaters, and cemeteries.24

The 1896 U.S. Supreme Court ruling on the case of Plessy v. Ferguson, in favor of a Louisiana law requiring “equal but separate” railroad accommodations for blacks, served to legitimize racial segregation in the United States for the next fifty-odd years. In his majority opinion Justice Henry Billings Brown wrote that “if one race be inferior to the other socially, the Constitution of the United States cannot put them on the same plane…” and thus did not require the “enforced commingling of the two races.”25

Baseball, considered “America’s pastime” from as early as 1860, was also affected by the growing racial divide. While most teams, from amateur to professional, typically fielded all-white or all-black players, there were a few black players recruited onto white professional teams as late as the 1890s, and all were in Northern or Midwestern states. In 1878 John “Bud” Fowler played minor league ball for a Massachusetts team in the International Association, in 1884 for a Minnesota team in the Northwest League, and in 1895 in the Michigan State League. Moses Fleetwood Walker played in the major league American Association in 1884 for a Toledo, Ohio team and in 1886 George Stovey, star pitcher for the black Cuban Giants of Trenton, New Jersey, was recruited by the white Jersey City minor league team playing in the Eastern League.26 In 1887 there were seven black professional baseball players in the International League. But 1887 appears to have been the high water mark for integrated professional baseball.27 Sol White, who was among the last black players to play on a white team in 1895, published his chronicle of black baseball in 1907, coming then to the conclusion that “in no other profession has the color line been drawn more rigidly than in baseball.”28

In the South, Jim Crow laws touched on all aspects of social interaction and effectively created two separate worlds. In addition to separation of the races in public accommodations, including recreation and entertainment venues, the separate and generally unequal access to education led to educational institutions primarily supported by black churches rather than local governments.29 The glimmer of equality and integration experienced by some American blacks in the North, men like W. E. B. Du Bois who was born in Massachusetts and earned advanced degrees from Harvard University, was not experienced by the vast majority of the African-American population. And even integrated and educated men like Du Bois felt the duality of being African-American in the United States at the turn of the twentieth century. In a 1903 essay Du Bois described it as a feeling of “two-ness, - an American, a Negro…in one dark body.”30

Separate African-American institutions and enterprises such as churches, schools, hospitals, and businesses, as well as Negro professional baseball, developed as a response to the strict social segregation of blacks from

26 Hogan, pp. 43-44.
27 Ibid., p. 56.
established white institutions and businesses. However, African-Americans were not of one mind concerning the creation of a separate black America parallel to white American society. Writing in 1908, Ray Stannard Baker noted “there are almost innumerable points of view and suggested modes of conduct, but they all group themselves into two great parties which are growing more distinct in outline and purpose every day.” The two schools of thought were represented primarily by the writings and activities of Booker T. Washington and W. E. B. Du Bois.

Booker T. Washington, who was born a slave in the South and educated at the all-black Hampton Institute in Virginia, was hailed among whites and many blacks for his belief that African-American advancement would be achieved through practical education, self-help, and accommodation to segregation. His Tuskegee Institute provided industrial and agricultural vocational training for blacks, believing that if “the Negro learned to produce what other people wanted and must have, in the same proportion would he be respected.” Washington did not believe in “agitating the questions of political rights or racial equality” suggesting instead that blacks would prove their worthiness for equality and eventual integration through education and success within the segregated community. Baker wrote on Washington’s conciliatory school of thought: “He teaches that if the Negro wins by real worth a strong economic position in the country, other rights and privileges will come to him naturally. He should get his rights, not by gift of the white man, but by earning them himself.”

W. E. B. Du Bois, though born and raised in Massachusetts, completed his undergraduate studies at Fisk University in Louisiana where he experienced first-hand the Jim Crow segregation of the South. Du Bois took a more activist approach to segregation with a more direct goal of integration via Federal and judicial intervention. His belief that African-Americans should actively pursue equality was laid out in the Niagara Movement Declaration of Principles, a group organized by Du Bois and others in 1905:

We refuse to allow the impression to remain that the Negro-American assents to inferiority, is submissive under oppression and apologetic before insults…Persistent manly agitation is the way to liberty…

Du Bois went on to help establish the National Association for the Advancement of Colored People (NAACP) in 1909, which carried on the principles of the Niagara Movement. On this activist school of thought Ray Stannard Baker observed: “Everything that tends to set the Negro off as a Negro, whether the white man does it or the Negro does it, is bitterly opposed by this party of coloured people,” adding for illustration a comment made by an African-American man in Boston, “The coloured man must not draw the line himself if he doesn’t want the white man to do it.”

While the NAACP and other smaller regional groups continued the work toward full integration and equality for African-Americans in the United States, others agitated for more dramatic alternatives. Beginning in 1914 Marcus Garvey led a separatist movement, promoting “black social and moral independence within white society.” AME Bishop Henry McNeal Turner supported emigration to Africa rather than capitulation to segregation. Though more extreme than the approach of Booker T. Washington, these groups likewise
espoused some form of separation rather than integration. And after decades of activism, by the early 1930s, even Du Bois suggested that high-quality separate black business and social institutions were necessary to advance the African-American people until integration could be achieved: “Think of the splendid moral appeal that you can make to a million children tomorrow, if once you can get them to see the possibilities of the American Negro today and now, whether he is segregated or not, or in spite of all possible segregation…”

Thus in the segregated America of the twentieth century that grew out of slavery, Reconstruction, and Jim Crow laws, African-Americans necessarily nurtured a culture of duality.

The Birth and Growth of Negro Baseball

Within this context, the game and business of Negro professional baseball was a prime example of both the American culture of segregation on the one hand and African-American cultural distinction on the other. Despite the underlying racial insult of segregated baseball, Negro professional baseball became a point of pride within the African-American community. As the previously marginally integrated professional baseball world shifted to fully segregated teams in the late 1890s, ball-play became a field in which African-Americans could prominently display their equal, if not superior abilities.

In the South, the racial divide between black and white was clearly drawn long before it was codified into law beginning in the 1880s. There amateur to professional all-black baseball teams played much as they had during the middle of the nineteenth century. The large southern black population was for the most part rural, and as a result, according to baseball historian Lawrence Hogan, black team baseball in the South was generally a local game with “little evidence of traveling intercity touring teams.” The relatively small black populations in the northern cities and towns of the late nineteenth century deterred the growth of black professional teams, lacking the fans to support them. Despite this, the first all-black professional team, known as the Cuban Giants, was fielded out of Trenton, New Jersey in 1885. In April 1888, The Age, an African-American newspaper, reported on the Cuban Giants, who were in fact not Cuban but black Americans:

[T]he Cuban Giants have done the race good service. They are helping to destroy the objection to meeting colored men on an equal footing, which is the most pronounced feature of the race problem with which we have to contend.

The Cuban Giants were reportedly “the only colored professional baseball nine in the country” in 1888. Although they called Trenton home, the Cuban Giants were primarily a traveling team. They played exhibition games, often against white teams from the major and minor leagues in order to find opponents of equal skill, as well as local amateur and semi-pro teams, both black and white.

The Cuban Giants, and the Negro professional teams that followed, drew their players from the ranks of the amateur and semi-professional club teams and “industrial” teams. The industrial teams were the historic backbone of baseball, typically a company formed the team, recruiting players from the company’s employees,

41 Hogan, p. 18.
42 Ibid., p. 21.
44 The Gazette, July 21, 1888, as cited in Brunson, p. 115.
45 Hogan, p. 27. Throughout the history of baseball, most amateur or semi-pro teams were sponsored by industries whose employees played on the team and took their team name from the sponsoring company.
to boost morale – and perhaps advertise their company name.46 For Negro baseball such teams served, much like the white minor leagues, as a “farm” system preparing young players for recruitment onto professional teams.

While a few black players, including Cuban Giants’ pitcher George Stovey, did play on white professional teams as late as 1895, by the turn of the twentieth century professional baseball throughout the country was fully segregated. Though never an “official” policy, African Americans, along with African-heritage players from the Caribbean islands, were excluded from organized professional baseball by “gentleman’s agreement.”47 As with other African-American institutions created in the wake of segregation, if black players wanted to play professional baseball, it would have to be on an all-black professional team. In the vein of Booker T. Washington’s self-help vision, Moses Walker, among the last black ball players to play in the white professional leagues, wrote in 1908: “...the Creator had endowed His people with every power and means to attend to their own physical needs, and if they fail in the use of these faculties they may sit until the end of time waiting for outside help.”48 Several black entrepreneurs, including former player Bud Fowler, established professional Negro ball clubs in the Midwest in the 1890s, and by 1906 there was “a virtual explosion of black independent clubs within a hundred-mile radius of New York, New Jersey, and Pennsylvania.”49

Like the earlier Cuban Giants, the all-black teams formed in the first decades of the twentieth century traveled continuously from city to city and to smaller towns. They played exhibition games against each other, but also against white semi-pro teams and sometimes professional minor and major league teams. Interracial play assured greater attendance and financial stability by widening the audience to include white fans.50 This practice, known as “barnstorming,” also brought professional baseball to rural locations, where residents otherwise would never see their baseball heroes, both black and white. The sheer volume of games played on the barnstorming circuit ensured the survival of black teams and their poorly-paid players, and it remained an integral part of Negro professional baseball even after organized Negro league play began in the 1920s.51 And it wasn’t just the black players who relied on the financial gain from these barnstorming games, according to baseball historian Timothy Gay:

> Until the 1940s, paychecks for white big-leaguers arrived only during the season. Barnstorming, then, became an important way to fatten money clips during the fall and winter.52

Early segregated Negro professional baseball’s heavy reliance on games catering primarily to white fans was partly a symptom of the still largely rural, largely southern black population at the time. In addition to the lack of a concentrated black fan base, early black teams were hampered by their reliance on white financial backers and white promoters like Nat Strong in New York, who controlled the bookings of teams and venues.53 It took a

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47 According to Baseball Commissioner Kenesaw Landis’ statement in 1942: “Negroes are not barred from organized baseball by the commissioner and never have been during the 21 years I have served as commissioner... That is the business of the managers and the club owners.” As cited in Lanctot, p. 233. Hogan writes of the 1920s Cuban player Cristóbal Torriente: “Torriente occupied an ambiguous racial position. His nationality along with his skin color could have possibly gotten him into the majors. Kansas City Monarchs pitcher Chet Brewer described the Cuban outfielder as ‘Indian’ color, which, in some instances during the 1920s, would have garnered a talented player a tryout from a major league club.” (Hogan, p. 147)
49 Hogan, p. 104.
50 Lanctot, p. 4; Gay, p. 19.
51 Gay, p. 20.
52 Ibid.
greater influx of black migrants from the South into the Northeast and Midwest to provide a stronger foundation for the business of Negro professional baseball and organized Negro leagues.

The Great Migration of rural southern blacks northward into urban areas began as a trickle in the 1890s and grew into the first wave around 1915. In 1910 the black population of Detroit, Michigan stood at just under 5,000, but by 1920 there were 35,000 additional black residents in the city and by 1930 the total black population stood at 149,000. New York City had over 300,000 African-Americans living there by 1930, more than three times the 91,000 counted in 1910. In Newark, New Jersey the black population also tripled from 9,400 in 1910 to 38,880 in 1930. The number of African-Americans living in Paterson, New Jersey in 1920 was relatively small by comparison at just over 1,500, yet by 1930 it had nearly doubled to 2,952 people.54 The successive waves of black migration into northern cities were followed by increasing racial segregation in the North, though less often legally sanctioned by laws as in the South:

In the decades following the Civil War, most northern states prohibited school segregation by statute. This was largely a matter of political and economic expediency, and did not necessarily reflect a deep commitment to racial integration. …During the years of the Great Migration, as the numbers of African Americans concentrated in northern urban areas multiplied, the limited commitment to racially integrated schools in the north eroded.55

In New Jersey, segregation in education was outlawed in 1881, yet as the African-American population increased overall by more than 132 percent between 1910 and 1930 segregated schools, mostly in the southern counties, persisted despite the law.56 Northern acceptance, and in many cases embrace, of an increasingly segregated society ensured a place for Negro professional baseball in the region and the burgeoning urban black populations ensured a core fan base.

The concentration of African-American populations into industrial cities like Pittsburgh, Philadelphia, New York, Cleveland, Detroit, Chicago, and Newark (NJ), as well as southern industrial cities such as Birmingham, St. Louis, and Baltimore, facilitated the development of many more professional Negro baseball teams. Fueled in part by the post-World War I expansion of jobs in industrial areas in the Midwest, along the East Coast, and in the South, the increasing number of black fans began demanding more intra-racial games.57 Several black entrepreneurs, some still backed by white investors, heeded the call and established a number of strong black teams:

Rube Foster’s Chicago American Giants, whose home field was “old White Sox Park,” at 39th and Shields in Chicago, owned by white partner John M. Schorling.

C. I. Taylor’s Indianapolis ABCs, who played at Washington Park, lease owned by partner Ted Bowser, bought out by Taylor in 1915.

Ed Bolden’s Hilldales outside Philadelphia – played at Hilldale Park.

Birmingham Black Barons – Co-owned by black businessman Oscar W. Adams and white entrepreneur Frank M. Perdue, who was also part owner of the Birmingham Barons at Rickwood Field.


57 Hogan, p. 134.
Alex Pompez’s New York Cuban Stars whose ballpark bookings were controlled by white promoter Nat Strong.

Atlantic City Bacharach Giants – played in the city-owned Bacharach Park.58

The strength of these teams rested on quality players and a solid local black fan base, as well as owner support – “black businessmen who believed in race advancement” – and access, in most cases, to a home field.59 By 1920 black professional baseball had evolved into a viable, largely black-owned business and the Negro National League [I] was formed by Midwestern club owner Rube Foster. Then in 1922, Philadelphia team-owner Ed Bolden organized the Eastern Colored League.60 League play, in which affiliated teams played each other in regularly scheduled games arranged by the league, represented a step forward for black professional baseball. Inevitably compared to the white major and minor leagues, black baseball played within the Negro league structure was perceived as a more visible platform upon which to demonstrate the players’ league-level skills. Writing in the 1920s as sports editor for the African-American newspaper the Kansas City Call, Charles Starkes proposed that the quality of play in the Negro leagues might eventually cause the American public to “question the results of a world series championship between two white teams as conclusive when perhaps there are one of several colored teams in the country better than the contender.”61 Starkes believed in the power of baseball, to serve as a showcase of black talent and to reach across the race divide: “Here in Kansas City we see baseball as a wonderful contributor to the solution of an ancient race problem.”62

Perhaps not the “uplift” envisioned by Booker T. Washington or the “moral appeal” espoused by W. E. B. Du Bois, but in its own special way, as an integral part of the national pastime, Negro professional baseball continuously reminded Americans of the “possibilities of the Negro American.” The importance of Negro baseball in the era of the “New Negro,” largely viewed as an arts and literary renaissance (see Alain Locke’s 1925 essay “The New Negro”), was that baseball reached across the spectrum of the 1920s African-American population. Historian Clement Price summarized this view: “Negro baseball surfaces as an important symbol of black accomplishment in the cities, black accomplishment on the playing field, and black business development.”63

Negro Baseball and the Great Depression

The economic boom of the early 1920s buoyed the success of the Negro National League [I] and the Eastern Colored League (1922), until the failure of the U.S. economy that began with the stock market crash in October 1929 crushed the leagues and many teams. As the United States entered into the Great Depression of the 1930s, the prospect for professional Negro baseball appeared bleak. The effects of the Great Depression impacted large segments of the nation’s laboring population but hit African-American workers hardest. The core of Negro baseball, fan – and owner – support, could ill-afford to pay. By 1932, both Negro leagues had collapsed. The surviving independent teams, many necessarily financed by white businessmen, fell back on the barnstorming circuit playing primarily semi-pro white teams in order to attract larger audiences.64

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58 Ibid., pp. 129-148; Birmingham Black Barons, Barra, p. 66. Another important early team, the Kansas City All Nations, later called the Monarchs, was run by white owner J. L. Wilkinson.
59 Hogan, p. 151.
60 Lanctot, p. 5. This is the first [I] Negro National League. A later Negro National League was formed in 1932 after the 1931 demise of the Negro National League [I]. Unlike the white major and minor leagues, Negro league teams rarely controlled their players with written contracts and were continuously hampered by players who would “jump” teams.
61 As cited in Hogan, p. 160.
63 Ibid., p. 156.
64 Lanctot, p. 9.
The New York Black Yankees, formed from the Harlem Stars and the New York Lincoln Giants, began play as an independent team in 1931 backed by white businessmen John Powers and Marty Forkins with their silent partner, black entertainer Bill “Bojangles” Robinson.65 Powers and Forkins planned to rent Yankee Stadium as well as the New York City Polo Grounds for their team’s home games:

After Forkins and Powers soon abandoned the investment following financial setbacks, M. E. Goodson, a black cabaret owner and barber, and his associate James Semler assumed control and operated the team through 1932. Costly park rentals, however, limited the home appearances of the Black Yankees…66

By 1933, James “Soldier Boy” Semler was sole owner but had given control of the team to white New York booking agent Nat Strong explaining, “we needed cash and couldn’t get it from any colored business men so we borrowed it from Strong.”67 That same year a new Negro National League (NNL) formed with Pittsburgh Crawfords owner Gus Greenlee at its helm and six initial affiliate teams, however, the Black Yankees remained outside the league. Strong opposed the NNL on the grounds that scheduled league games would interfere with his lucrative barnstorming bookings, a view shared by Semler who believed that Strong would “keep the team working and I know the league can not.”68

Semler’s commitment of the Black Yankees to the independent bookings that Strong controlled reflected the continued financial struggle faced by black teams, even in a high population area such as New York City. Professional teams, even those now affiliated with the Negro National League, continued to rely on exhibition play on the barnstorming circuit:

Barnstorming and Negro baseball were practically synonymous in the minds of fans, and with good reason. Clubs in the organized Negro leagues were not, strictly speaking, barnstormers, since they played a formal schedule with several series a year against other teams in the league. But more than half their 200-odd games a year (sometimes two-thirds) were outside the league; Negro clubs kept promoters around big cities busy booking them for their days off from league play, usually with white semipro teams in towns within driving distance of the city where they happened to be stopping a day or two.69

Faced with limited finances and limited access to home fields, black teams played most of their games on the road. Few teams enjoyed the benefits of a field they could call “home” in the sense that most white major and minor league teams could. Rick Woodward’s minor league team the Birmingham Barons played all of their home games at Rickwood Field. Woodward rented the field to the Birmingham Black Barons to use “when, of course, the white Barons were on the road.”70 But often the expense of such arrangements was prohibitive. Large parks like Yankee Stadium and Comiskey Park (Chicago) were more commonly rented for promotions such as the highly profitable East-West games at Comiskey, which annually drew crowds of over twenty to thirty thousand.71 The Negro National League (NNL) mitigated the exorbitant rental fee at Yankee Stadium, $2,500 for a single date, by booking hugely successful double-headers, splitting the cost over two games in one day, featuring four NNL teams.72 The rental of white league stadiums was in fact an important source of

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65 Martin and Martin, p. 12; Lanctot, p. 15.
66 Ibid.
67 As cited in Lanctot, p. 27.
69 Barra, p. 38.
70 Hogan, p. 258. The East-West All-Star promotions pitted the most popular NNL (east) players vs. the most popular NAL (west) players, chosen by fans. The games proved to be more popular than the official league-sponsored Negro World Series.
71 Lanctot, p. 85.
revenue for both major and minor league teams, but was a barrier to financial stability for many black professional teams:

The chronic problem of obtaining suitable home grounds proved a major stumbling block to the NNL in 1933. With the exception of the Crawfords’ Greenlee Field, no league team had unlimited access to its own home park, instead turning to facilities used by white Organized Baseball teams. In Nashville, Tom Wilson’s Elite Giants planned to use Sulphur Dell, a Southern Association park, while the Indianapolis ABCs rented Perry Stadium, the home of the local American Association franchise. Meanwhile, the Columbus Blue Birds leased Neil Park, formerly used by the American Association… The Homestead Grays, however, temporarily abandoned Forbes Field in favor of occasional home games at Greenlee Field, a decision necessitated by fans “antagonistic” to the Grays renting a white major league park instead of a largely black-sponsored local enterprise.

The situation in Chicago and Detroit…was particularly disheartening. The now homeless American Giants [formerly at the park at 39th and Shields Streets] were unable to secure a replacement park in Chicago and faced the possibility of becoming a road team as the start of the season dawned. Prospects in Detroit were equally discouraging, as Hamtramck Stadium, built in 1930 and the major venue for black teams, not only was inconvenient for black fans because of its Hamtramck location but was also controlled by John Roesink, an unpopular white promoter and pants store owner.73

As a result many games took place in smaller parks or on “sandlot” fields where costs were low, but receipts were lower too.

The advantage of a black-owned stadium was clear but the enormous financial commitment required was beyond the means of most African-American team owners. Gus Greenlee’s Pittsburgh Crawfords were indeed the exception within the nascent NNL. The Memphis Red Sox were another exception. A franchise in the first (1920) Negro National League, they occupied Lewis Park in Memphis built by black owner Robert Lewis in the mid-1920s. After 1929 the park was renamed Martin Park under the Martin brothers’ ownership of the team and ball field. In 1937 the Memphis Red Sox, with Martin Park as their home field, joined the newly-formed Negro American League.74 Another exception came in 1935 when New York Cuban Stars owner Alejandro “Alex” Pompez paid thousands of dollars to remodel the Dyckman Oval for his team’s home park under a three-year lease with the New York City Parks Department, the same year Pompez entered the Cuban Stars into the NNL.75 But by 1936 Pompez was on the run from the law and in 1938 Dyckman Oval was demolished. Greenlee Field met a similar fate in late 1938.76

Building Hinchliffe Stadium

Born of this matrix of economic depression and a need for affordable sports venues was Hinchliffe Stadium in Paterson, New Jersey. Using funds from a bond issue and later, New Deal program funds, the Paterson City

73 Ibid., p. 19. Of this particular group of stadiums, as of December 2010, only Perry Stadium (Owen J. Bush Stadium) in Indianapolis and the Hamtramck/Roesink Stadium in Detroit appear to be still standing. The Homestead Grays, according to former Grays “batboy” Elijah Miller, used West Field in Munhall outside of Pittsburgh as their weekday home field and Forbes Field on weekends when the Pittsburgh Pirates were on the road (Post-Gazette.com, “Rebuilding the Grays homefield,” August 11, 2006). For a discussion of extant stadiums associated with Negro professional baseball (as of March 2011) see Comparative Sites section below.


75 Lanctot, p. 42.

76 Ibid., pp. 59 and 81.
Stadium, later known as Hinchliffe Stadium, was built in 1931-32 to bring hope and relief in the form of sports and entertainment to the city’s struggling population. Paterson was established as an industrial mill city in 1791 by the Society for the Establishment of Useful Manufactures (SUM). By 1920 more than half of the city’s workers were employed in silk mills, mills that produced 50% of the nation’s silk and rayon textiles in 1925. The Great Depression devastated Paterson’s textile industry, reduced to 6% of national production by 1939. Largely populated by European immigrant laborers and more recently a small but growing population of African-Americans, unemployment in Paterson reached 14% by 1932.

The “stadium movement” in Paterson actually began in 1921 when then-mayor Frank Van Noort proposed the construction of a municipal stadium. Although public enthusiasm at the time was high, no stadium was constructed. In 1928 the issue was again raised when Mayor Raymond Newman promised in his campaign to appoint a stadium planning committee. When Mayor Newman unexpectedly died shortly after taking office, his successor, Mayor John V. Hinchliffe, followed through on the promise and appointed the Paterson Stadium Association to study a number of possible locations, sizes, costs, and configurations. The committee, however, could not agree on an appropriate site for a stadium and in early 1930 the committee dissolved. But by October of 1930 a site known as Monument Heights, located on the west side of the Passaic River near the Great Falls that were the city’s historic source of industrial power, was chosen for the new stadium site. The noted landscape architecture firm, Olmsted Brothers, who worked on several previous projects for Passaic County, was hired by the Passaic County Parks Commission in October 1930 to prepare the plans.

By mid-May 1931, Olmsted Brothers had formulated a plan for the stadium but noted in a letter to Paterson’s Director of Recreation Alfred Cappio:

The area is so cramped that some compromises must be made, and it is the relative importance of the different activities that we would like you to determine. So far we have provided for:

- A full size football field (soccer in the same area)
- A fifth mile track having somewhat flattened but satisfactory ends, and a 100 yd. straightway.
- A ball diamond with correct orientation but with only a 250 foot outfield without obstructions. This is rather tight, but is probably the best that can be done.

In his response to the Olmsted Brothers’ query, Mr. Cappio indicated his view that baseball would perhaps be the most significant use of the stadium: “I hope that there will be some way of increasing the size of the baseball diamond. Baseball is very popular here and the field will undoubtedly be in constant demand for baseball.” The Olmsted Brothers answered this request by producing two alternate plans for the stadium.
Appendix G

(Figures 11 and 12) accompanied by a chart comparing the two plans (A – the “diagonal scheme” and B – the “normal scheme”) which Cappio presented to the City of Paterson on May 28, 1931. Within days both plans were published in the local newspaper for public review, although the accompanying story noted, “The architects on the stadium are already at work on specifications and plans.”

The city hired the local architectural firm of Fanning & Shaw, to finalize the stadium design. The firm previously designed several Paterson school complexes. William T. Fanning passed away in 1925 so it was partner John Shaw who prepared the design. The stadium design was at-once elegant and practical, blending Spanish Colonial Revival and Art Deco/Moderne architectural and decorative features on an all-concrete, cost-saving construction. In the end Shaw’s composition melded the two Olmsted plans into one (Figure 4), featuring the continuous curve of the seating found in Olmsted plan A and the symmetrical placement of the stadium within the street grid found in Olmsted plan B. The baseball diamond took center stage with its placement at the center of the seating curve, allowing for a larger outfield (see Description section for a complete as-built description of the stadium from a 1932 newspaper report).

Construction of the new stadium began in November 1931 and was completed in June 1932. The first major event, a celebration of George Washington’s 200th birthday, was scheduled over three days in early July. Although the official opening of the stadium – featuring the State Championship track-and-field meet – did not occur until September 1932, the first baseball game was played on the field on July 24th pitting the local Paterson Professionals against the Michigan barnstorming team called the House of David. On August 14th, the first Negro professional baseball was played on the new field with the appearance of the Atlantic City independent black baseball team the Bacharach Giants, featuring future Hall of Famer John Henry “Pop” Lloyd in his final season. They were followed the next day by a double-header played by the New York Cuban Stars against the Paterson Truckers, another local semi-pro team.

At the official opening ceremony held in September, the stadium was renamed “Hinchliffe City Stadium” in recognition of the invaluable efforts of current Mayor John V. Hinchliffe in getting the stadium built and, reportedly, in memory of his father, former Mayor John Hinchliffe. The year closed out with the annual Thanksgiving Day football game between the city’s two high schools, Eastside and Central, said to have been attended by 11,000 spectators.

In his January 1933 annual address to the people of the city of Paterson, Mayor Hinchliffe reviewed what he called “one of the major accomplishments of the administration”:

…I appreciate far more the completion under my administration of a permanent and modern play-field for the physical advancement of our young men and young women and for the entertainment of all who take an interest in athletic sports and physical training.

Hinchliffe continued: “The total cost of the stadium…was approximately $217,000, which will be met by a bond issue to be redeemed from the proceeds of the track and field events and other public entertainments…The arena has been laid out so as to give the widest possible range for football, baseball and field and track activities.” It was rental fees brought in by these activities that planners hoped would make the stadium a “paying proposition.” Under the administration of the Paterson Board of Education, the Stadium Commission managed the scheduling and fees. With the Stadium Commission setting the baseball rate at $100 per game plus 25% of the gate receipts, Chairman Richard O’dea “firmly maintained that the present rate schedule must
be applied uniformly to all baseball games.”\(^{90}\) Judging by the newspaper accounts of stadium activities, baseball – both white and black – maintained the scheduling priority, particularly on Saturdays and Sundays through much of the season, however track and field meets and boxing made occasional appearances. In late August semi-pro football shared the field as well.

**Negro Baseball at Hinchliffe Stadium – 1933-1940**

Continuing the precedent set in the truncated 1932 season, the stadium played host to regularly scheduled independent (barnstorming) baseball games. Initially the scheduling focus appears to have been on the white semi-professional home team, the Paterson City Club described as stadium “tenant” in the local newspaper, playing outside team “attractions” including a game in May 1933 against the major league Pittsburgh Pirates, which drew a crowd of 4,000 fans.\(^{91}\) The team likewise hosted novelty teams such as the bearded players of the House of David, Jim Thorpe’s Oklahoma Indians, and the Panama All-Stars.

Paterson’s proximity to New York City ensured a local fan base for New York teams and in particular, it appears, Paterson fans both black and white were eager to see the New York Cuban Stars and the New York Black Yankees. It is likely that Negro baseball at Hinchliffe Stadium drew mixed crowds, given the size of the crowds – up to 5,500 – and the size of the African-American population in Paterson in 1930 – just under 3,000.\(^{92}\) The surrounding Passaic County likewise numbered only 5,518 black residents.\(^{93}\) Heavy and consistent coverage, including box scores, in the two white-owned Paterson daily newspapers, the *Paterson Morning Call* and the *Paterson Evening News*, implies that local white fans as well as black followed Negro professional baseball. While Paterson connected by bus and trolley lines to nearby New Jersey cities with large African-American populations such as Newark, Montclair, and East Orange, and to New York City via the George Washington Bridge by 1931, no documentation has been found to date that indicates whether Negro baseball fans at Hinchliffe Stadium were local or from out-of-town.

Hinchliffe City Stadium’s first full baseball season opened in April 1933 with a game featuring the Cuban Stars – also called the “Puerto Rican Stars” or the “Colored Crew” in the newspaper accounts – versus the Paterson City Club.\(^ {94}\) Throughout May and June of 1933 the Paterson City Club played both white and black teams at Hinchliffe Stadium. In July it was announced the Gavins – formed to replace the defunct Paterson City Club – would play the New York Black Yankees.\(^ {95}\) The *Paterson Evening News* sportswriter wrote just a few days earlier: “The Black Yankees are well-known to the baseball fans of this section, as second to none in colored pro-ball, outside of the major leagues.”\(^ {96}\) By August 30\(^ {97}\) the Black Yankees played and won four games at Hinchliffe Stadium and “proved to be the best attraction to play here except for the Pittsburgh Pirates,” when it was announced they would play the Pittsburgh Crawfords at the stadium on September 5\(^ {98}\). In an arc-lighted night game in front of a record crowd of 4,800 people, the Black Yankees defeated the Crawfords 6-3 despite the Crawfords’ all-star line-up including Oscar Charleston at first base.\(^ {99}\) The Black Yankees played three more games at Hinchliffe in the 1933 season, including a final match-up on September 20\(^ {100}\) with the Crawfords “in

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\(^{90}\) *PEN*, August 17, 1932.

\(^{91}\) *PEN*, May 8, 1933.

\(^{92}\) Gibson and Jung, Population Division, Working Paper No. 76.


\(^{94}\) *PEN*, April 3, 1933.

\(^{95}\) *PEN*, July 11, 1933.

\(^{96}\) *PEN*, June 26, 1933.

\(^{97}\) *Paterson Morning Call (PMC)*, August 30, 1933 and September 5, 1933.

\(^{98}\) *PMC* reported “more than 5,000 fans.” It appears Satchel Paige did not play in this game.
the final game of their series to decide the world championship in colored baseball. The Black Yankees won the game 9 to 3 over the Crawfords “before a crowd of more than 5,500 fans.” In all, the stadium hosted eight games featuring professional black baseball teams through the 1933 season.

The 1934 stadium season brought with it a new sport at Hinchliffe City Stadium:

Races to Be Presented by Motorcycles and Midget Cars…

Ed Otto…appeared before the Stadium Commissioners at the City Hall last night to apply for permission to stage motorcycle meets on twenty Mondays starting at the end of May, and midget car races every Wednesday for about ten dates. He offered $150 a night for the guaranteed rental. At the same time the commissioners considered applications for football and baseball schedules. The final stadium schedule for 1934 placed the motorcycle races on Tuesdays – after adjustments to the cinder track and removal of the concrete steps that protruded into the track, and soon installation of a permanent lighting system. Midget car racing was scheduled on Fridays beginning in August, although these were cancelled for the 1934 season. The local white semi-pro baseball team would take up the Sunday game slot beginning in July. But real excitement accompanied the Paterson Morning Call announcement on May 25th, “Black Yankees To Represent Paterson Every Saturday Afternoon For Five Week Period At Least Starting On June 2,” calling it “Big Time Baseball.” The arrangement required a contract between the team’s booking agent Nat Strong and several local unnamed businessmen who served as promoters who would book the opponent teams. On the same day the Paterson Evening News reported “the Black Yankees will act as the home team playing opponents requested by the fans.” By the end of June the Black Yankees had won every game played in the stadium and the contract was extended through the season, “the Yankees have proved both a financial and artistic success…” A testament to the popularity of the Black Yankees and of Negro baseball in Paterson was the regular publication of player’s box scores in the local newspapers after each game, a practice reportedly not consistently followed in other cities where Negro baseball was played.

During their 1934 contract season at Hinchliffe Stadium the New York Black Yankees, still an independent team, hosted the House of David, Cuban Stars, Newark Meadowbrooks (white semi-pro), Bacharach Giants, Brooklyn Farmers (white semi-pro), Philadelphia Stars, Bridgeport Bears (white semi-pro), Elite Giants (billed as an NNL team), Pittsburgh Crawfords (1933 NNL Champs), and the Crescent Stars (New Orleans team). In the final game of the season on October 19th, the Black Yankees faced the Brooklyn Farmers with “the barnstorming Deans, Dizzy and Daffy, pitching sensations of the National league and later the world series…” This appearance was part of a remarkable multi-city barnstorming tour in the fall of 1934, featuring the white major league players Dizzy and Paul “Daffy” Dean against an all-star Negro team headlined by pitching sensation Satchel Paige, although Paige did not join the tour until Cleveland. Sponsored by Kansas City Monarchs owner J. L. Wilkerson and promoter Raymond L. Doan, the inter-racial games were featured in

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99 *PEN,* September 20, 1933. The newspaper called this a “world championship” game, and indeed the Crawfords and the Black Yankees were among the most powerful teams of the 1933 season, however this was not an official Negro league game since the Black Yankees were still an independent team.

100 *PEN,* September 21, 1933.

101 *PEN,* May 10, 1934.

102 *PEN,* May 16, 1934; *PEN,* June 26, 1934.

103 *PEN,* August 10 and 13, 1934.

104 *PMC* and *PEN,* May 25, 1932. The unnamed businessmen were Tommy Rose, promoter, and George Brooks, reportedly the contractor who built the stadium. Brooks was later described as a “sponsor,” then “stadium manager,” and in 1935 replaced Rose as baseball promoter.

105 *PMC,* June 27, 1934.

106 Hogan, p. 380.

107 *PEN,* October 19, 1934.
The 1934 season at Hinchliffe Stadium also featured a white semi-pro Sunday home team, the Paterson Base Ball Club (BBC), hosting Negro clubs including the Detroit Clowns, Washington Potomacs, Bacharach Giants, Newark Dodgers (billed as 2nd place NNL team), and the Baltimore Black Sox, and white semi-pro clubs the Bridgeport Bears, Birmingham Crackers (probably Atlanta), and the Philadelphia Hebrews. The Paterson newspapers reported on eighteen games played at Hinchliffe Stadium featuring black professional teams in 1934.

The successful draw of Negro professional baseball at Hinchliffe Stadium and in particular the popularity of the New York Black Yankees in Paterson was emphatically confirmed in April 1935 with the new season’s stadium schedule. Bob Whiting, sports journalist for the Paterson Morning Call reported on the schedule in his weekly column “Time Out for Bob Whiting”:

The stadium committee of the Board of Education will meet this evening prior to the regular stated meeting of the board, and it is expected that before the meeting is adjourned the Hinchliffe Stadium will have been rented for at least six days a week from May through September.

One date has already been made certain of, the Black Yankees through their local promoter George Brooks, having been granted the use of the Falls bowl for Saturday afternoon baseball. More than four bids have been entered for Sunday afternoon baseball, and this date will be disposed of tonight in order to permit the successful team to take over its franchise by the end of the month.

Whiting noted that Tuesdays would likely again host the motorcycle races and Thursdays would be “fight night” with the possibility of both amateur and professional boxing matches.

With their Hinchliffe Stadium opponents arranged by promoter George Brooks the Black Yankees faced many of the same teams from the previous year, but new to the scene was “Buck Lia’s Hawaiian All Stars,” and independent Negro teams the Camden Colored Giants, the Penn Red Caps, and the Texas Steers. “Baseball Under Lights” began at the stadium in August of the 1935 season when the Black Yankees played as the home team in a series of Thursday night games. The night series brought in the best white semi-pro team opponents from around the region. However, the Thursday night game on August 29th featured a new attraction for the stadium – an officially scheduled Negro National League matchup between the Nashville Elite Giants and the New York Cubans (formerly the Cuban Stars). Hinchliffe Stadium was a new venue for the NNL, leading to speculation that the NNL was testing Paterson as a potential league team city. Within days of that game an NNL double-header was scheduled at Hinchliffe Stadium. It seems the success of these games spurred promoter Brooks to schedule one more league game at the stadium – this time in the Saturday game slot, at the expense of his still-independent home team the Black Yankees:

Promoter George Brooks has announced that after a long conference he has signed the Pittsburgh Crawfords, winners of the first half of the National Negro league, to meet the New York Cubans here next Saturday. The Cubans are leading the Negro league in the second half and need to win but one game in their remaining four to get into the playoffs of the Colored World series. The Yankees, who are giving up the afternoon to allow this game, will be back September 14 with another strong opponent.

108 Gay, p. 79.
109 PMC, April 11, 1935.
110 PMC, August 14 – 26, 1935.
111 PMC, August 27, 1935.
112 PMC, August 31, 1935.
113 PMC, September 2, 1935.
The Black Yankees, members of the powerful Negro National league, will alternate with the Newark Eagles of the same circuit in playing as the host team at the local ball park every Saturday afternoon during the baseball season...

Long favorites with the Paterson fans, the Black Yankees are returning with most of the players who helped to create a big following in this city during their past campaigns here.121

The Black Yankees’ lineup included notable pitcher Bill Holland, but the Newark Eagles brought with them future National Baseball Hall of Famers George “Mule” Suttles and Leon Day. It was again at Hinchliffe Stadium that the NNL opened its official season with a game pitting the Newark Eagles against the Homestead Grays featuring the Grays’ star hitter Josh Gibson.122 Despite the all-star lineup, cold weather kept the opening day crowd down to 1,000 people. Just a few days later, the first motorcycle race of the year drew a crowd of 10,000 to the stadium. But neither could compare to the 13,000 fans expected to attend the annual Thanksgiving Day football contest between the Paterson Eastside and Central high schools.123

The 1937 Negro professional baseball season at Hinchliffe consisted almost exclusively of regularly scheduled Negro National League play, seventeen games in all with fourteen of them league games. Several games pitted the two home teams, the Black Yankees and the Newark Eagles, against each other.124 But by the mid-season break, the Paterson Morning Call sports column “Around THE SPORT CYCLE with THE DEAN” commented on the significant decline in fan attendance:

Local baseball fans who trot up to Hinchliffe Stadium on Saturday afternoons to witness the Negro National league games see some real baseball, but we are sorry to say that these fans are very small in number as compared to turnouts in other cities represented in the league. If there were 1000 fans out on Saturday, George Brooks, who runs these games, would be delighted. However in Pittsburgh there are never less than 10,000 at a game. The Homestead Greys [sic] and Pittsburgh Crawfords who represent the Smoky City, draw almost as well as the Pirates of the National League.”125

Although “The Dean” (Willie Harvey) indicated that the two NNL teams in Pittsburgh continued to draw large crowds, the 1937 season was not a financial success for Negro league baseball in general.

NNL officials, owners, and sportswriters held differing views on the causes of their league’s troubles, all of which were compounded by the “Roosevelt Depression” of 1937:

League officials such as New York Black Yankees owner James Semler linked the difficulties to declining patronage and increasing expenses such as player salaries, equipment, lodging, and park rentals. Outlining the discouraging conditions affecting his club’s stability, Semler noted that “in New York there are over 300,000 colored people but the best we can hope for at any time is about 5,000 customers...Like other black entrepreneurs, Semler also cited the problem of white competition, complaining that “every time the Yankees or Giants play, you can find at least 5,000 of our people in the stands, paying twice as much and more.”126

Baseball fans, in a time of economic hardship, were perhaps not inclined to buy tickets based on “race pride” alone, observed Philadelphia Tribune writer Marcus Cooke, “when they pay their 75c to see a ball game; they
Throughout the 1930s Negro professional baseball was a hit or miss proposition for fans with games suddenly cancelled and star players apt to jump teams. In 1937, eighteen NNL players jumped to a Dominican Republic team for better pay, among them were nine players from the Pittsburgh Crawfords including Satchel Paige. Lack of cooperation between league team owners often led to scheduling problems – on June 26th, 1937 the Black Yankees and Newark Eagles were scheduled to play an NNL scheduled game at Hinchliffe Stadium but “a mixup in dates” forced a postponement. Finally, many believed the ongoing Negro league financial problems were simply due to the bad business practices of the owners, wrote Chappy Gardner, journalist for the Baltimore Afro-American, “…as fine as these owners are, personally they lack business training.

In Paterson, where the previous years’ larger crowd numbers at Hinchliffe Stadium likely included a significant percentage of white working class fans, the 1937 decline in turnouts at Negro baseball games was more likely an economic issue as the textile industry continued to struggle. Whatever the cause, it appears that diminishing attendance at Hinchliffe Stadium games impacted the baseball schedule there in the 1938 season. In April 1938, baseball promoter George Brooks announced that Saturday games would feature “outstanding white and colored teams outside the big leagues.” The plan, according to the newspaper account, was “to keep shuffling the attractions so that different clubs fill the home team niche from week to week, thus providing new attractions for the fans.” The Black Yankees won the season opener against the Brooklyn Farmers, but “with a small crowd on hand.” As a result of the small crowd Brooks cancelled the following Saturday game then reinstated the schedule in May “after working out a more advantageous arrangement with the teams he brings here from the metropolitan section.” After hosting eight NNL and non-league exhibition games through June and into July, Brooks again cancelled the Saturday games. The newspaper headline announced “Poor Attendance Causes Sponsor to Throw Up Sponge.” The reporter noted that Brooks was “on the verge of quitting several times last season but managed to stick it out” and after cancelling several games in the current season, this time he was done: “The failure of the turnouts to exceed a thousand fans and dipping below that figure many times made it a losing proposition.” Even the motorcycle races suffered declining attendance at Hinchliffe Stadium and the 1938 racing season was cancelled as well. It appears likely that the continuing economic depression of the 1930s was the primary culprit.

The 1939 stadium schedule reflected the attendance downturn of the previous two years. When the Stadium Board finally announced the schedule on June 1st midget car racing was “in” for two nights a week and “Motorcycles Out”; the Paterson Panthers football team snagged the usual fall weekly spot; and the NNL games were out – the baseball slots featured four local semi-pro teams, including at least one black team called the Furrey Smart Sets, playing weekend day games and Monday evenings. The Smart Sets baseball team was sponsored by local businessman William P. Furrey, a real estate developer. Like other black semi-pro teams, typically sponsored by manufacturing companies who drew players from their employee ranks, the Smart Sets were part of the unofficial “farm” system from which young players were recruited onto professional teams, and where older players could wind down their careers. The Smart Sets of Paterson featured two former NNL

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127 As cited in Lanctot, p. 69.
128 Lanctot, p. 62.
129 As cited in Lanctot, p. 68.
130 As cited in Lanctot, p. 69.
131 PEN, June 5, 1938.
132 PEN, April 5, 1938.
133 PEN, April 25, 1938.
134 PEN, May 11, 1938.
135 PEN, July 14, 1938.
136 PEN, June 1, 1938. One game in July featured two NNL teams, the Pittsburgh Crawfords vs. the New York Black Yankees. Also in July, the semi-pro Smart Sets played one game against the Black Yankees and one against the Bacharach Giants. After that, all baseball play was by semi-pro teams.
players Clyde Spearman and Hub Crawford, according to the *Paterson Evening News*, as well as several young players including “‘Spooks’ Smith, Morgan College ace” and Larry Doby, a rising sophomore at Paterson’s Eastside High School.\(^{137}\) The switch in emphasis from motorcycles to auto racing prompted significant changes to the track, apparently funded by the Works Progress Administration (WPA) – the track was widened and a “new composition spread over the racing surface” along with banking in the turns.\(^{138}\)

The Negro National League returned to Hinchliffe Stadium in the 1940 season in a “program of weekly twilight baseball games.” Paterson agent Joe Mingin, who handled the bookings for the House of David baseball team, promoted the twilight series. The Friday evening games were scheduled early according to Mingin, “because of inadequate light facilities here.”\(^{139}\) No home team was contracted by the promoter, but the opening game on June 14\(^{140}\) featured the Black Yankees against the Philadelphia All-Stars. Mingin explained, “The team which emerges will meet Josh Gibson’s Homestead Greys [sic] in the follow-up battle.”\(^{140}\) The Friday evening NNL team game schedule failed, however, when the second game was cancelled because the Grays “were unable to appear.”\(^{141}\) Instead it was the semi-pro Smart Sets, occupying the Sunday afternoon game slot, who headlined the Paterson sports pages through the Hinchliffe Stadium baseball season. The Smart Sets’ roster during the 1940 season included the young power hitter Larry Doby.\(^{142}\) Doby was still a student at Paterson’s Eastside High School but ineligible for play on the Eastside team, according to a 1941 newspaper story, which described his 1940 season:

Larry was floored by ineligibility last season [1940] but when he went to work with the Smart Sets during the semi-pro campaign his bat spoke a thundering tone all year. He wound up slugging at better than a 400 clip.\(^{143}\)

By August the Smart Sets occupied the Friday twilight game slot as the home team with “leading metropolitan semi pro teams” as the visiting opponents, “provided the crowds are large enough to warrant the Sets management hiring the stronger clubs.”\(^{144}\) Their opponents included the Texas Rangers, the Pennsylvania Red Sox, the Havana Cuban Stars, the West Point Colored Cavalry, and a team from San Juan, Puerto Rico.\(^{145}\)

The Hinchliffe baseball field, which had been reduced in size by the expansion of the track for midget car racing the previous year, was perhaps in a better condition during the 1940 season following the removal of the hard surface laid for auto racing. Motorcycle racing replaced the midget cars for the 1940 stadium season “and a new track will be laid down, made of clay and cinder composition.”\(^{146}\) Weekly professional boxing matches were also planned for the stadium through the summer/fall season.\(^{147}\) The improved 1940 stadium season was an indicator of the expanding national economy as U.S. industries began producing military supplies for European allies in the war with Germany – a war that soon engulfed the United States as well.

\(^{137}\) *PEN*, June 10, 1939, *PMC*, July 1, 1939.
\(^{138}\) *PEN*, June 1 and June 9, 1939. The track was again resurfaced in the last week of June (*PEN*, August 8, 1939).
\(^{139}\) *PEN*, May 29, 1940.
\(^{140}\) *PEN*, June 12, 1940.
\(^{141}\) *PEN*, June 19, 1940. These games were likely not part of the official NNL game schedule given the set up in which the winner would play the Grays the next week.
\(^{142}\) *PEN*, April 24, 1940. The story indicates that Doby played for the Smart Sets during the 1939 season as well, “Expected to appear in the line-up are the great power hitters of last year – ‘Clown’ Thompson, Larry Doby, Ollie Wright, and Al Fenner.” Fellow Paterson resident Monte Irvin played for the Smart Sets from 1937 until 1939 when he joined the Newark Eagles (Martin and Martin, p. 38).
\(^{143}\) *PEN*, April 5, 1941. This story did not explain why Doby was ineligible for high school baseball in 1940, but he did return to the Eastside team during the 1941 season.
\(^{144}\) *PMC*, August 23, 1940.
\(^{146}\) *PEN*, April 27, 1940.
\(^{147}\) *PEN*, May 4, 1940.
Stirrings of Discontent

From its opening in 1932 through the 1940 season, the sports scheduling successes and failures at Hinchliffe Stadium reflected the economic ups and downs experienced throughout the United States as the country passed through the Great Depression. As a venue for Negro professional baseball, semi-pro baseball, and high school team ball, games at the stadium were played within the racial confines of the times. Significantly, Hinchliffe was located in northern New Jersey and thus reflected the Northern approach to segregation. While the professional teams were segregated, the high school teams were not. Larry Doby played on the integrated Eastside High School baseball and football teams, though he was reportedly the only African-American on the team. No segregation ordinance regulated the seating arrangements of the fans attending games at Hinchliffe Stadium and given the crowd numbers at the baseball games, it appears the audiences were integrated to some degree. In the South, Jim Crow laws made this arrangement impossible. At Rickwood Field in Birmingham, Alabama, a city ordinance required that black fans be seated in a fenced-off section separate from white fans. When the Birmingham Black Barons played there every other Sunday, the seating arrangements were reversed, though still segregated. In 1938, at a meeting in Birmingham, First Lady Eleanor Roosevelt “defied the city’s segregation ordinance and its police chief, Eugene “Bull” Connor who threatened to arrest anyone who crossed racial lines, by placing her chair directly on the line dividing whites and blacks.”

Mrs. Roosevelt’s defiance in Birmingham did not signal a change in the Federal stand on segregation in the United States. Though the economic hardships of the Great Depression faced by both white and black Americans were mitigated by President Roosevelt’s New Deal programs, Jim Crow segregation remained intact:

The Civilian Conservation Corps remained segregated in the South, but during its existence, about 200,000 blacks worked in camps the agency created. U.S. Housing Authority subsidies (later the Federal Public Housing Authority) funded segregated housing projects in the South, while some projects in the North were integrated. Nevertheless, some New Deal era legislation did provide a basis for challenges to Jim Crow. The 1935 Motor Carrier Act (also known as the Motor Vehicle Act), for example, prohibited discrimination on interstate buses. However, it was not until 1953 before a challenge under the act reached the ICC.

Change was underway however, as a few individuals succeeded in challenging – if not ending – racial discrimination in public accommodations. Perhaps the most visible and vocal of these was Marian Anderson, a world-renowned singer who was denied the stage at Washington, D.C.’s Constitution Hall in 1939. Eleanor Roosevelt and Secretary of the Interior Harold Ickes arranged for Anderson to sing instead in front of the Lincoln Memorial. The concert was held on Easter Sunday 1939, attended by “an interracial crowd of seventy-five thousand persons...and dealt a symbolic blow to Jim Crow.” Also in 1939, Samuel W. Tucker led a sit-in challenge to segregation in the Alexandria, Virginia public library. In Paterson, New Jersey, the Rev. Adam Clayton Powell presided at “an unusual interdenominational and inter-racial religious service,” held at the First

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148 Typically the semi-pro teams were either composed of all-white players or all-black players, but it is not clear whether this arrangement was official segregation (by the team sponsors) or segregation by an unwritten understanding. By 1944 the Paterson semi-pro team called the Uncle Sans included a black player.

149 Martin and Martin, p. 136; Larry Doby is quoted in reference to the Eastside football team: “We won the state championship and got invited to a bowl game in Florida. I was the only black on the team and they said I couldn’t go, so the team voted to stay home.”

150 Barra, pp. 48 and 58.


152 Ibid.

153 Ibid.
Baptist Church and “sponsored by the Paterson Inter-Racial Commission.”

Two years earlier, Congressman Arthur L. Mitchell initiated a lawsuit against a railroad company that led to a 1941 Supreme Court ruling ending discrimination in first-class rail accommodations. At the same time, the NAACP was concentrating its efforts on equalizing, if not integrating, public education through court challenges.

There were stirrings of discontent on the baseball field as well and in particular among the black sportswriters who waged a determined campaign for the integration of black baseball players into the white major leagues:


Though Pirates owner, William Benswanger, reportedly admitted in 1938 that some Negro league players were major league material, no move toward integration was forthcoming. That same year, in November 1938, Adolf Hitler unleashed his racially-charged ideology on Kristallnacht, attacking Jewish German citizens. In the face of American and European rejection of Hitler’s actions, sportswriter Wendell Smith pointed out the irony of continuing racial segregation at home: “They [the major leagues] discriminate, segregate and hold down a minor race, just as he does. While Hitler cripples the Jews, the great leaders of our national pastime refuse to recognize our black players.”

World War II Era: 1941-1945

The 1940s ushered in significant changes both in the world at large as World War II unfolded and in the world of racial segregation in the United States as barriers were further challenged and began to fall. The earlier stirrings of protest got a substantial boost in June 1941 from A. Philip Randolph. Representing the Brotherhood of Sleeping Car Porters, Randolph threatened a 100,000-man march on Washington, D.C. protesting employment discrimination and segregation in the military. Not prepared to integrate the military on the eve of war, President Roosevelt averted the threatened march with Executive Order 8802, “there shall be no discrimination in the employment of workers in defense industries or Government because of race, creed, color, or national origin…,” and established the Fair Employment Practice Committee (FEPC) to ensure compliance. The country was gearing up for war and this was a significant, though imperfect, boost for black employment opportunities particularly in the industrial cities.

By 1941, the increasing industrial production in the United States associated with the war in Europe appears to have improved the economic outlook for the Negro leagues. In Paterson, manufacturing jobs at the Wright Aeronautical Corporation, which produced engines for training and combat airplanes, likely helped to bring

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154 The Messenger, February 2, 1939.
156 NHL Theme Study, “Racial Desegregation in Public Education in the U.S.,” (NPS, 2000), pp. 61-64.
157 Hogan, p. 328.
158 Ibid.
159 As cited in Hogan, p. 327.
160 Franklin, p. 579. The FEPC was not entirely successful in assuring non-discrimination in defense contract employment, but it was a significant step forward.
161 Lanctot, p. 104.
about a renewed interest in sports entertainment. The Newark Eagles returned to Hinchliffe Stadium as the Saturday home team in the second half of the 1941 NNL season. Touting a line-up of players “drawn from all corners of the country,” the Eagles opened with a July 12th game against the Baltimore Elite Giants:

Baseball of big-league variety will return to Paterson on Saturday afternoon July 12 when the Newark Eagles make their first appearance of a home stand here, featuring clubs from the National Negro League in Saturday afternoon games at the Hinchliffe Stadium.\footnote{PEN, June 30, 1941.}

It will mark the first appearance of the Newark Eagles here this season but it won’t be their last. Abe Manley, manager of the club and Effa Manley, his wife who serves as business manager, have arranged for five games at the Stadium, featuring teams from the strong league roster.\footnote{PEN, July 8, 1941.}

The additional NNL scheduled games at Hinchliffe pitted the Eagles against the Black Yankees (August 2), the Black Yankees against the New York Cubans (July 26, cancelled), the Eagles vs. the New York Cubans (August 9), and a final matchup between the Eagles and the Black Yankees on August 23rd and were reportedly a great success.\footnote{PEN, June 30, 1941; “The Negro National league teams playing Saturday afternoon games at the Stadium late last season did so well they looked forward to this year, confident that their financial gains here would be something to anticipate with delight.” (PEN, June 9, 1942)} Effa Manley said after the 1941 season, “the baseball business…is just beginning to grow. It will not only supply many jobs, but is something the colored group can feel proud of.”\footnote{As cited in Lanctot, p. 111.}

Following the Japanese attack on Pearl Harbor in December of 1941 the United States entered World War II. As in World War I, African-Americans answered the call to arms in 1942 as the United States joined the war against the Germans and the Japanese. But this time was different. While still serving in segregated units, in addition to their previous service roles in the Army new service opportunities were opening. Blacks were trained as pilots at Tuskegee, although their skills were not fully utilized until late in the war. In the spring and summer of 1942, first the Navy and then the Marines opened their ranks to black servicemen. And by mid-1942, by order of the Secretary of War, officer candidate schools were graduating blacks at an unprecedented rate. Black women served in the WAC and WAVES as well.\footnote{Franklin, pp. 583-585. Again, these successes were incomplete but a positive step forward.}

Emboldened by their military status, African-American servicemen added weight to the rising tide of protests at home against race-based discrimination, particularly in transportation and eating establishments.\footnote{NHL Theme Study, “Civil Rights in America: Racial Desegregation of Public Accommodations,” (NPS, 2009), p. 35-36.} For many black soldiers from the northern and western states stationed at southern military posts, it was their first brush with Jim Crow:

One of the most noteworthy examples of pervasive discrimination involved Jackie Robinson, an All-American athlete from California and a commissioned officer in the army stationed at Ft. Hood, Texas. On January 6, 1944, Lieutenant Robinson boarded a bus leaving camp and refused to heed the driver’s warning to “get to the back of the bus where the colored people belong.” Like other non-southerners who had not experienced segregation in public transportation back home, Robinson stood his ground. Arrested by the military police, the future Hall of Fame baseball player faced a court martial but was acquitted.\footnote{Ibid.}
For Robinson, it was a foretaste of the dramatic role he would play on the baseball field just a few years in the future. For the nation, the protests of an increasingly vocal minority at home coupled with the fight against fascism abroad engendered a growing awareness of the injustices of segregation. By the end of the war in 1945 eighteen northern and western states including Connecticut, California, Colorado, Illinois, Indiana, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Washington, and Wisconsin, had enacted anti-discrimination laws in public accommodations.\textsuperscript{169}

Professional league baseball continued throughout the war years, though players entering military service negatively impacted team rosters both black and white. Still, the industrial job boom at home created by the war boosted attendance at most baseball games and the profits of team owners. In 1942, citing the “success last year” of NNL games at Hinchliffe Stadium, managers contracted the Newark Eagles and the New York Black Yankees to once again share the Saturday home team slot for six league games in May and June.\textsuperscript{170} The May 2\textsuperscript{nd} edition of the \textit{Paterson Evening News} sports page featured a photo of Monte Irvin with the caption: “Former Orange High School all around athlete sensation will be in an outfield berth for the Newark Eagles when that team opens its season at Hinchliffe Stadium next Saturday opposing the Cuban Stars in a National Negro league game.” On May 25\textsuperscript{th} the Homestead Grays pummeled the Black Yankees in a game, prompting the headline “Josh Gibson’s Mighty Blast Big Factor in 7-Run Fourth Inning”:

\begin{quote}
The Homestead Greys [sic], yearly one of the powers in professional colored baseball, stopped off at Hinchliffe Stadium for couple of hours Saturday afternoon, just long enough to hand the N.Y. Black Yankees a decisive 10-2 drubbing in a regularly scheduled Negro National League encounter.\textsuperscript{171}
\end{quote}

After these two games and one probable rain-out, however, the NNL teams withdrew from their Hinchliffe contracts after disappointing crowd numbers. And it wasn’t just the professional teams having difficulty drawing in the fans. \textit{Paterson Evening News} sports columnist Joe Gooter wrote:

\begin{quote}
The playoff came Thursday night when the Wright Aero and Curtiss Propeller teams met at the Stadium in a Passaic-Bergen League game. They played to a total of 42 admissions.

It’s been like that since the start of the season. Managers of the semi pro teams can’t explain it since the teams have never had any trouble in shutting the door in the wolf’s face in the past. Right now, they are so lonesome when they play, they would welcome even the wolf if he paid his way in.\textsuperscript{172}
\end{quote}

Gooter speculated on the reason for the decline, “The chances are it’s a combination of factors: war, many more people hard at work, a falling of interest, and perhaps a few intangibles.”

A similar outcome occurred in the 1943 stadium season. The Newark Eagles again planned to use Hinchliffe Stadium for their Saturday home games, including an NNL game on May 22, with at least two other league games scheduled. Rain cancelled the opening game and the next game, featuring the Newark Eagles vs. the Black Yankees, netted only slightly over 200 spectators. The Eagles, whose roster now included local star Larry Doby, were scheduled to play the semi-pro Wright Aeros for the stadium promotion “Larry Doby Day,” but backed out to play elsewhere. The July 12 game featured the Wright Aeros against the Paterson Colored All-Stars, though the main star, Larry Doby was unable to attend, committed instead to playing with the Newark Eagles in Trenton. The Larry Doby Day promotion attracted a crowd of 400+ and appears to have been the last baseball game of the 1943 season played at Hinchliffe Stadium. Amateur Diamond Gloves boxing, motorcycle

\hspace{1cm}\textsuperscript{169} Ibid.
\hspace{1cm}\textsuperscript{170} \textit{PEN}, April 2, 1942.
\hspace{1cm}\textsuperscript{171} \textit{PEN}, May 25, 1942.
\hspace{1cm}\textsuperscript{172} \textit{PEN}, June 9, 1942.
and midget auto-racing, and even a staging of the 1943 Water Follies featuring Gloria Callen and Buster Crabbe, filled the stadium schedule through August and September.

The 1944 baseball season at Hinchliffe Stadium featured the semi-pro team known as the Uncle Sams as the regular home team. The Uncle Sams, formerly the Doherty Silk Sox, appear to have been an amalgamation of local defense industry employees. They were an integrated team, featuring a number of “former major and minor league stars who are now engaged in defense plants,” and one black player, Jimmy Thompson.173 Thompson was a starting outfielder who more than once clinched a win for the team with his power hitting and “fleet-footed” fielding.174 Local sports columnist Joe Gooter, who described Thompson as a “former performer in Negro National League competition,” noted that Thompson too left professional baseball for defense work:

That’s quite a ball player, that Jimmy Thompson who plays left field for the Uncle Sams. He has been offered a chance to play for such teams as the Newark Eagles, Black Yankees, Kansas City Monarchs, and Homestead Greys [sic] but has thumbed them down to remain on his war plant foundry job (as a metal pourer).175

The Uncle Sams hosted approximately fourteen games at the stadium through the 1944 season, with ten games against professional black teams – three of those against NNL teams indicating Negro league teams were still dependent on barnstorming revenues.176 Two of the games featured opponent teams drawn from military ranks, the Camp Shanks (Army) team and the Mitchell Field (Air Force) team. Though the Uncle Sams’ season began as weekday twilight games, in July they shifted to Sunday afternoons and noted a “marked increase in attendance.”177 The Uncle Sams’ last game against the Homestead Grays was scheduled for August 11, however the newspaper never reported on the game which was likely a rain-out.

Negro professional baseball never returned to Hinchliffe Stadium after the 1944 season. Certainly a primary reason for this was the stadium’s inability to draw significant crowds after 1941. The reason for the small spectator turnouts for professional black baseball at Hinchliffe Stadium was never clear, however, it may be that rental policy changes at New York’s Yankee Stadium were the key. In 1939, negative publicity following racist remarks made by Yankee outfielder Jake Powell the previous year, prompted Yankees general manager Ed Barrow to offer the Negro National League a new per-date rental fee of $1,000, a $1,500 reduction in price. The NNL leased Yankee Stadium for five double-headers – ten games total for the rental price of five dates – that attracted a total of 60,000 fans over the course of the series of games. It is possible that Paterson fans of Negro professional baseball eschewed their local stadium in favor of watching their favorite teams amid the glamour of Yankee Stadium. Adding to the glamour, Barrow donated the Ruppert Memorial Cup, named for the late Yankees owner Jacob Ruppert, to be awarded at the end of the series.178 The New York Black Yankees played in at least four of the ten games, presumably as the “home” team, while the New York Cubans played in three (one against the Black Yankees), and the Newark Eagles in one.179 In 1940, at least four NNL double-headers were scheduled at Yankee Stadium featuring the Black Yankees in three of the games, the series again billed as the Ruppert Memorial Cup.180 Eight NNL promotions were slated in 1941, with the Black Yankees in

173 PMC, May 19, 1944. The team included “Frank McDonald, former slugging first baseman for the Philadelphia Phillies, of the National League…Bob Contini, who last year was the starting second baseman for the Jersey City Giants, and Jack Orlando, former leading batter of the Southern Association and then a catcher for a year with the New York Giants.”
174 PMC, July 4, 1944.
175 PEN, July 5, 1944.
177 PMC, July 4, 1944.
178 Lanctot, p. 85.
at least four games, including one against the Newark Eagles that drew a crowd of 23,000.181 This more-regular use of Yankee Stadium, particularly by the “home” teams, the Black Yankees and the New York Cubans, continued through the 1940s and likely had some negative impact on Negro professional baseball at Hinchliffe Stadium.

With little professional baseball to report on locally by July 1942, the *Paterson Evening News* turned some of its sports reporting to the dramatic events unfolding around rumors of possible integration of major league baseball. Faced with dwindling rosters in 1942, two major league teams toyed with the idea of hiring black players, the Pittsburgh Pirates and the Philadelphia Phillies, though neither followed through with the rumored tryouts.182 On July 17th the sports page posted the headline “Landis Says No Ban on Negros,” referring to Baseball Commissioner Kenesaw Landis’ statement that “there was no rule against major league clubs hiring Negro baseball players.”183 Though technically true, the now-decades old “gentlemen’s agreement” to keep baseball segregated was still honored throughout the major and minor leagues.

The continuing call for integrating baseball was growing louder, however, buoyed by the recent anti-discrimination successes and by the obvious need for players in the major leagues fairly decimated by the war. Though many players and some owners, including Newark Eagles’ owner Effa Manley, viewed the prospect positively, that outlook was not necessarily shared by all Negro baseball team owners and players. Fearing that Negro baseball would become obsolete, some non-star players worried they would lose their chance to play professional baseball. Team owners also feared that integration would at least damage, if not kill Negro baseball, and thus their now-profitable investments.184 New York Black Yankees owner James Semler put it bluntly, “we are built on segregation….If there was no segregation, we wouldn’t have had colored ball clubs; we wouldn’t make money, and we’d all probably be out of business.”185

Opportunity for change again arose in 1943 when a delegation of black newspaper publishers, sportswriters Dan Burley and Wendell Smith, *Afro-American* business manager Howard Murphy, and actor Paul Robeson, met with major league officials to press their case for baseball integration.186 Again, no commitment to change followed. Stanley Frank of the *New York Post* wrote about the prevailing attitude among major league officials:

> [They] privately resent that their business has been made the focal point of agitation for elimination of racial prejudice. They want to know why the problem is not solved first in more important fields such as medicine and education. The Army and Navy and industry are not meeting the issue squarely; why should baseball?187

Though efforts to combat discrimination in the military and industry were indeed struggling against the prevailing prejudice of the day, a sense of the inevitability of change was in the air. As the nation fought and won against the fascism of Nazi Germany, the cry for equality at home became a moral imperative.

**Integration and the Death of Negro Baseball**

At the end of the 1945 season, the growing pressure to integrate baseball culminated with a startling announcement following an October exhibition series. The games, played primarily at Ebbet’s Field in New York, featured a team of white major league players, including several Brooklyn Dodgers, and a lineup of the

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183 *PEN*, July 17, 1942.
185 Ibid., p. 247.
186 Ibid., p. 245.
187 Ibid., p. 246.
Negro leagues’ best players, including Jackie Robinson. Newark Eagles owner Effa Manley and Brooklyn Dodgers general manager Branch Rickey jointly promoted the series. Rickey had been involved in several developments in major league baseball that pointed toward integration, among them allowing (under pressure) three black players to workout with white hopefuls in a pseudo-tryout, and serving on a sub-committee of New York City Mayor Fiorello LaGuardia’s Committee on Unity to study major league baseball integration. It was these associations and a reputation for innovation that gave observers of the October game series hope for a breakthrough. On October 23\textsuperscript{188}, Branch Rickey signed Jackie Robinson to play with Dodgers affiliate the Montreal Royals.\textsuperscript{188}

Branch Rickey’s 1945 integration of the Dodgers’ minor league affiliate team sent shock waves through black and white baseball as well as American society at large. Roy Wilkins declared in his *Michigan Chronicle* column:

…”in a new and dramatic fashion the fact that the Negro is a citizen with talents and rights is being heralded to the nation. The people who go to baseball games do not, in the main, go to lectures on race relations, nor do they read pamphlets about goodwill. The millions who read box scores very likely have never heard of George Washington Carver. But Jackie Robinson, if he makes the grade, will be doing a missionary work with these people that Carver could never do. He will be saying to them that his people should have their rights, should have jobs, decent homes and education, freedom from insult, and equality of opportunity to achieve."\textsuperscript{189}

Within months both professional football leagues and many college football teams began integrating black players.\textsuperscript{190} These encouraging signs however did not reflect any major changes in the still-entrenched Jim Crow laws throughout the Southern states and likewise did not produce an avalanche of change within the sport of baseball. In 1946, it was again only Rickey who signed an additional four players, including Don Newcombe from the Newark Eagles. Effa Manley reacted to the loss with a shrewd prediction of the impending demise of her team, and eventually Negro baseball, complaining, “…we have so many boys who are Major League material we may wake up any morning and not have a ball club, if this keeps on.”\textsuperscript{191}

In July 1947, the Cleveland Indians signed Newark Eagles’ power hitter Larry Doby, just three months after Jackie Robinson played his first game in the majors with the Dodgers. Negro league team owners complained bitterly of the loss of fan support as black spectators flocked to competing major league games featuring Robinson or Doby. By the end of the 1947 season, Negro teams were posting large financial losses due to dramatic drops in attendance:

Despite developing a championship club, Alex Pompez claimed losses of $20,000 following a disastrous World Series with the Cleveland Buckeyes that attracted only marginal interest and press attention. At Yankee Stadium, only 63,402 fans turned out for black baseball promotions, a drop of nearly 95,000 from 1946, and attendance at Newark fell from 120,293 to 57,119. In Philadelphia, fewer than 64,000 attended the eleven scheduled dates at Shibe Park in 1947, a nearly 28,000 aggregate drop from 1946 despite two additional promotions. Meanwhile, the powerful Homestead Grays reported season losses as high as $35,000.\textsuperscript{192}

\textsuperscript{188} Ibid., pp. 254, 276 and 278.
\textsuperscript{190} Lanctot, p. 293.
\textsuperscript{191} Ibid., p. 288.
\textsuperscript{192} Ibid., p. 317.
Most Negro teams still lacked their own permanent home field, continuing instead to rent space — typically paying a percentage of ticket sales — a practice that left them vulnerable to any change in fan support. Through the 1946-47 season the Black Yankees held on, paying the rental price at Yankee Stadium, but the following season moved to Rochester, New York and quit the NNL after the 1948 season.195 The Homestead Grays, who won the 1948 Negro League World Championship, followed. Then the 1946 World Champions the Newark Eagles disbanded in 1948.194 In 1949 the NNL’s remaining teams merged with the NAL and continued to schedule games — often with only four competing franchises — through the 1961 season.195 A few other teams, including the Kansas City Monarchs, Birmingham Black Barons, Detroit Stars, Cincinnati Tigers, and the Indianapolis Clowns continued to play exhibition games as late as 1963.196 Ultimately, the 1947 integration of major league baseball spelled the end of the all-black Negro leagues and independent teams.

The United States began to make gestures toward the deconstruction of institutionalized segregation prior to 1947, but the integration of baseball, with all of its symbolism as “America’s pastime,” proved to be a dramatic turning point in American history. The U.S. Supreme Court ruling which outlawed restrictive covenants in housing followed in 1948, and then President Harry S Truman ordered the elimination of discrimination in Federal employment and the desegregation of the armed forces. In 1950 he ordered the integration of public housing. In 1954 the U.S. Supreme Court ruled in Brown v. Board of Education which initiated the desegregation of public education.197 Transportation, accommodations, education, housing, employment, the military, sports and entertainment — the many victories, large and small, which broke down the walls of racial segregation from the 1930s through the 1950s and into the 1960s culminated in the Civil Rights Act of 1964.198 There was still a long hill to climb against underlying prejudice and overt discrimination, but in 1964 the foundations on which Jim Crow stood for nearly 100 years collapsed.

Negro professional baseball, as an institution created within the confines of racial segregation in nineteenth and twentieth century America, served a purpose that transcended mere entertainment. It was a place of business and employment, it provided opportunities for young athletes to excel, and it was an important source of African-American community pride:

> Although black baseball ultimately disappeared, its accomplishments still resonate today. Along with other shadow institutions such as black hospitals, the industry facilitated eventual integration by providing invaluable experience and training otherwise elusive in a still highly segregated nation….As [Philadelphia Stars pitcher] Tom Johnson later observed, “in the absence of the opportunity, the blacks created that opportunity, created…a baseball world for themselves, so they could demonstrate their abilities. And so many of them were ready when the doors were opened, so from that vantage point I felt that we were winners.”199

**Hinchliffe Stadium Through the Second Half of the Twentieth Century**

While a few other ballparks continued to host Negro teams as late as the 1960s, Negro baseball disappeared from the field at Hinchliffe Stadium after the 1944 season. As Negro baseball was waning, managers of the Paterson stadium turned their attention to midget car racing and boxing through the late 1940s and continued to hold high school athletic events. As with other entertainment venues, the growth in popularity of television and

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193 Ibid., pp. 328, 338.
194 Hogan, p. 346.
195 Ibid., p. 371.
196 Ibid., p. 374.
197 Franklin, pp. 609-610.
198 Ibid., p. 635.
199 Lanctot, p. 397.
automobiles, as well as changing population demographics, spelled disaster for Hinchliffe Stadium through the 1950s.200

In 1963, the City of Paterson Board of Education gained full ownership of the stadium and began a series of improvements. Local newspapers reported that the track was lengthened to ¼ mile (at the same time lengthening the southeast end of the stadium), bleachers repaired, and the field re-sodded. The baseball field was reoriented from its central location to the northeast corner of the field (current location), which increased “the distance to the outfield fence [to]…340 feet down the left-field line and 360 to center” and placing right field 270 feet from home plate.201 Eventually, probably in the 1970s, the steel-frame grandstand cover was removed and in 1979 a maintenance garage was constructed at the athletic entrance. In 1983, the City of Paterson, led by Mayor Frank X. Graves, made additional “improvements” to the stadium by covering the field with Astroturf and the track with a urethane surface. From 1988 to 1989, the New Jersey Eagles, a professional soccer team, made Hinchliffe their home. But by 1992, the Paterson public school system had failed and fallen into receivership with the State of New Jersey. No longer able to maintain the facility, the stadium was closed in 1996.202

Nationally Significant Site Comparisons

Comparative Sites Context

Negro professional baseball is nationally significant as a powerful and very public story of the era of racial segregation in the United States. It is also a story of baseball, of outstanding, high-quality play that took place on the fields and in the stadiums of American cities and towns. Baseball venues, the physical arena within which this history played out, are an important tangible link to the past, but one that has proven to be ephemeral. Few historic baseball venues remain standing today; nearly all of the historic major league stadiums have been demolished and replaced by larger stadiums with modern amenities. Of the ball parks that still stand, the minor league and municipal stadiums in smaller cities and towns have typically been renovated with new seating, sky boxes, restaurants, and other additions. The loss or alteration of so many historic baseball venues has a significant impact on our ability to relate baseball history, particularly Negro professional baseball, to its historic physical environment.

Perhaps the most salient aspect of identifying sporting venues historically associated with Negro professional baseball is that few black teams owned their own field. The financial burden imposed by the construction and maintenance of a stadium was beyond the limited resources of most black-owned teams. Of the three known examples, none is still standing. Pittsburgh Crawfords (NNL) owner Gus Greenlee built Greenlee Field in Pittsburgh, Pennsylvania in 1932, but within six years the stadium was demolished. Martin Park in Memphis, Tennessee, owned by Memphis Red Sox (NAL) owner Dr. William Martin, was built in the 1920s and survived intact and in use until 1961 when it too was demolished. New York Cuban Stars owner “Alex” Pompez financed the remodeling of the Dyckman Oval for his team’s home park under a three-year lease with the New York City Parks Department, but by 1938 the deal had collapsed and the stadium was demolished.203 The majority of Negro professional baseball teams leased fields owned by white major or minor league teams, leased municipal stadiums, or played on “sandlot” fields.

201 Ibid.; quote as cited on page 8, Section 8.
203 Lanctot, p. 42.
While their white counterparts in the major and minor baseball leagues called their hometown field or stadium “home” and played all of their home games there, black professional teams who shared the field by lease agreements typically were limited in their use of the field for home games. Often the limiting factor was the sheer expense of renting a field, particularly major league fields such as Yankee Stadium or Comisky Park. In 1938, the Yankees ball club charged a rent of $2,500-$3,500 per game, plus 20-25% of ticket sales. Though the stadium could seat thousands of fans, the economic reality of the 1930s was that black baseball fans simply could not support more than a few games at such expensive venues. Smaller venues in the form of minor league fields and municipal stadiums proved to be more affordable. For example, Hinchliffe Stadium charged just $100 per game, plus a 25% gate charge. Sharing a white team’s home stadium had its drawbacks. At Rickwood Field in Birmingham, Alabama, where Rick Woodward’s minor league team the Birmingham Barons played all of their home games, the Birmingham Black Barons’ lease agreement allowed use of the field only when “the white Barons were on the road.” From 1938 through the early 1940s the Homestead Grays reportedly used West Field in Munhall outside of Pittsburgh as their weekday home field and Forbes Field on weekends when the Pittsburgh Pirates were on the road. And while the New York Black Yankees called Yankee Stadium “home,” in reality they called several ball parks home, including the New York Polo Grounds and Hinchliffe Stadium.

Given the limitations on home games for black baseball teams, most of their 200-plus games per year were played “on the road.” Financial necessity dictated that the teams play far more games than the official league schedules could supply. Barnstorming or exhibition games were a mainstay of Negro professional baseball. Many of these games took place on “sandlot” fields, that is, ball fields on grass or dirt lots, sometimes with a chain link backstop and possibly a small row of bleacher seats. Such fields were typically found in local public parks and fairgrounds, however documentation of historical association with Negro professional baseball is difficult to come by and historical integrity nearly impossible to assess.

Throughout the period of racial segregation in America, Negro professional baseball was played across the country, with the highest concentration of active teams and league play in the North (Northeast/Mid-Atlantic), the Midwest, and in the Southeast. A large number of sports venues saw play over the years – as many as 188 venues according to the most recent survey. However, not all saw the same quantity of play. Though further research on specific sites may reveal additional play, from the currently available documentation it is clear that while some sites were used repeatedly through the season over a number of years, others served only as an occasional venue for Negro baseball. For example, Hinchliffe Stadium saw use by Negro professional teams every season over a 12-year span (1932 through 1944) with as many as 24 games played in the 1936 season, while sites such as Clemens Field in Hannibal, Missouri and Cardines Field in Newport, Rhode Island reportedly served as occasional barnstorming venues.

Additionally, when considering the national significance of a site, not all venues hosted the same quality of play. Specifically this refers to independent versus league play and the status of the Negro National League (NNL) and Negro American League (NAL) as major leagues and the Negro Southern League as a minor league within the Negro league framework. Based on their review of venues and scholarly works on the history of Negro professional baseball, site survey coordinator Connolly & Hickey concluded:

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204 Connolly & Hickey, “Historical Significance Investigation…,” p. 38.
205 Ibid.
206 Barra, p. 58.
209 Connolly & Hickey, “Historical Significance Investigation…,” completed as a supplement to this NHL documentation.
210 Ibid, pp. 63 and 63.
Within the larger context of segregation throughout the late nineteenth and early twentieth centuries, as institutionalized by Plessy v. Ferguson in 1896 to treat African Americans as “separate but equal,” segregated baseball was an integral part of the black response to formalized segregation. Black independent teams who played exhibition games and barnstorming games were a significant part of this story. Many important black baseball games, including those featuring star players like Satchel Paige, were played in non-league exhibition games. Some teams moved in and out of the NNL and NAL, and many played non-league exhibition games even while they were part of the Negro major leagues. Venues hosting black baseball in other Negro leagues such as the Southern [League], are important for the same reason. Though for the sake of a comprehensive study all identifiable venues at which black professional baseball was played have been included in this inventory.

In establishing varying levels of significance, though, a distinction must be made. Negro League scholars such as Neil Lanctot, in *Negro League Baseball: The Rise and Ruin of a Black Institution*, and Lawrence Hogan, in *Shades of Glory*, state that the NNL and NAL were considered the “Major” Negro leagues. As Lanctot notes, “Although cities such as Birmingham and Memphis had been occasionally profitable, the urban centers of the north, midwest, and upper south had always been the backbone of the industry…” Hogan notes in his 2011 report “Hinchliffe Stadium: A National Black Baseball Venue” that “From 1933 through 1948 the strength of Negro League baseball was in the east in the Negro National League and on a similar although in the judgment of most historians of the Negro league game, slightly less high quality of play, in the west in the Negro American League after 1937.” Further, the NNL and NAL in particular were a significant achievement in the formation of race institutions and business…211

While consideration of the relative quality of play may enhance a venue’s national significance, it is important to note also the significance of regional differences. First, all regions included high-level players many of whom were eventually inducted into the National Baseball Hall of Fame. But racial segregation took on different forms in the North and South. Southern venues, while perhaps considered by baseball scholars to have hosted lower-quality league play, might derive national significance through their ability to tell the story of Negro professional baseball in the rigidly segregated society of the American South. This might be presented through segregated seating and perhaps extended years of play (into the 1960s) due to the slower pace of integration. Segregated seating does not appear to have been officially sanctioned in the Northern and Midwestern venues. However, these venues might derive national significance from the major league-quality play that dominated their association with segregated baseball and their ability to better tell the story of black entrepreneurship during that period.

*Comparative Sites*

Research completed by the New Jersey historical architecture firm Connolly & Hickey for their 2011 report “Historical Significance Investigation Report Evaluating the National Significance and Integrity of Hinchliffe Stadium” identified 188 venues used by professional black baseball teams during the era of segregation in America. In compiling this comprehensive inventory of black baseball venues, three scholarly sources were consulted: Neil Lanctot’s *Negro League Baseball: The Rise and Ruin of a Black Institution*, Lawrence Hogan’s *Shades of Glory: The Negro Leagues and the Story of African-American Baseball*, and Philip Lowry’s *Green Cathedrals: the Ultimate Celebration of All Major League Ballparks*. Additionally, various Internet resources, online newspaper searches, and correspondence with State Historic Preservation Offices served as the most valuable, up-to-date resources. The 188 venues were broken down into three primary categories or property

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211 Ibid., pp. 38-40.
types: Black-Owned or Leased Venues, Major League Baseball Venues, and “Other” Baseball Venues. None of the identified Black-Owned or Leased Venues or the Major League Baseball Venues remain standing today. These sites will therefore not be discussed in this section. The report identified 165 “Other” Baseball Venues (minor league parks, municipal stadiums, sandlot fields) of which 134 are no longer standing. Thus, of the 188 venues identified with some known association with Negro professional baseball, there are 31 venues still standing in the United States today (2011), all of them “Other” Baseball Venue property types. A list of all of the 188 identified venues, subdivided by property type, is attached to this documentation.

Based on the available documentation on the remaining 31 extant baseball venues there are 22 venues that do not currently appear to rise to the level of national significance, either by lacking sufficient documentation of significant historical associations with Negro professional baseball or retaining insufficient historical integrity. Further research in the future may alter this conclusion, however for the purposes of this comparative analysis, these 22 venues will not be considered.

The national significance of venues associated with Negro professional baseball is gained through several historical factors, as previously discussed. The final factor for consideration is the historical integrity of the venue, that is, its “ability to convey its historical associations or attributes.” The Connolly & Hickey survey team concluded:

> The property type within which these games were played would appear to be the last consideration, as the significance stems from the historical events held within the venue, rather than whether or not the venue was a designed stadium or featured only a simple grandstand and bleachers. The main architectural consideration would be if the venue continues to maintain its ability to convey its character at the time of black professional and Negro League play, and if it retains integrity of the essential physical characteristics marking it as a site for play. As such, physical elements from its period of significance must remain intact, specifically those that make it identifiable as a site of play. These features would include, for example, the field itself, bleachers and other seating, a grandstand, locker rooms, a press box and so on.

This NHL documentation identifies Hinchliffe Stadium as retaining a high degree of historical integrity:

> Although the stadium is in deteriorated condition, it clearly still portrays the description of its as-built condition as written and photographed in 1932, and throughout its historic association with Negro professional baseball. Major character-defining alterations came early, in the 1930s, and predominantly in 1934 with the addition of the restroom building, the concession stand, the remaining seating along the southeast wall, and widening of the track. The changes reflect the use of the stadium as an entertainment venue that was subject to the needs of shifting business models. The stadium retains its setting on the banks of the Passaic River, overlooking the Great Falls and the industrial heart of Paterson, the same commanding view that stadium patrons would have seen historically. It retains most of its original materials, including its reinforced poured concrete structural composition, clay tile roofing (except for the restroom building), and ornamental tile mosaics. Its distinctive form is intact, a unique design that fit the stadium into a tight piece of urban land. Thus Hinchliffe readily evokes the feeling of and association with the events that occurred there throughout its historic role in the larger nationally significant story of racial segregation as expressed through Negro professional baseball. Moreover, Hinchliffe Stadium retains integrity of location and setting since its surroundings remain largely unchanged. The Stadium’s design,
materials and workmanship survive intact and clearly impart the original and historic appearance and construction of the building. Although years of vacancy and vandalism have damaged the building, it remains as one of the most intact, if not the most intact of the few remaining stadiums that retain important historical integrity, associated with Negro baseball. Hinchliffe is distinctive, not only because of its unique design, but because it retains its entire physical plant, rather than just a field or lot where games were played. The ultimate test for integrity for Hinchliffe Stadium is whether members of the New York Black Yankees, or Newark Eagles, Cuban Stars, Bacharach Giants, Pittsburgh Crawfords, or any of the other teams that played there, or the spectators, or participants in the other sporting events of the 1930s would recognize the place if they were able to return. Undoubtedly they would. Standing high in the stadium, near the concession stand, looking out over the empty seats and field, and beyond to the vista of East Paterson, one can imagine hearing the crack of the bat and cheers in the stands; feel the bustle of activity around the concession stand, and the excitement and drama taking place on the field against the scenic vista backdrop.215

Based upon the above-cited considerations, Hinchliffe Stadium meets the criteria for national significance for its important association with the period of segregated Negro professional baseball between the years 1932 and 1944. During this time Hinchliffe Stadium served as a home field for the New York Black Yankees, both as an independent team and as a Negro National League-affiliated team, the New York Cuban Stars (NNL), and the Newark Eagles (NNL). The stadium played host to the high-quality play of Negro National League and Negro American League scheduled games, including the NNL season opening games in 1936 and 1937, as well as independent exhibition games. All of the games featured some of the highest-quality players in Negro professional baseball, many whom were later inducted into the National Baseball Hall of Fame. The teams and leagues represented at Hinchliffe Stadium demonstrate the development of black-owned businesses during the period of racial segregation in the United States. Hinchliffe Stadium retains a high degree of historical integrity to its period of national significance.

For comparative purposes, eight of the remaining extant “Other” Baseball Venues (exclusive of Hinchliffe Stadium) are discussed below, separated by region – four Northern/Midwestern and four Southern. It should be noted that, with the possible exception of Rickwood Stadium, none of the venues discussed below have the detailed documentation required for a full determination of their national significance and it was not within the scope of this project to produce such documentation. This comparative list should serve as a list of potential sites that might add to the nationally significant story revealed at Hinchliffe Stadium.

**Northern and Midwestern Venues with Potential National Significance**

**West Field (currently William Knight Field; sometimes called Grays Field)**
Munhall, Pennsylvania

West Field (later renamed William Knight Field; occasionally called Grays Field) is a municipal ball park in Munhall, Pennsylvania, a suburb of Pittsburgh. It was constructed about 1930. The concrete bleacher deck runs the length of a hill along the first base line, then curves around home plate and continues a short distance up the third base line. It includes recessed dugouts and locker rooms are said to be located under the shorter section of bleachers. West Field reportedly served as a home field for the Homestead Grays in the late 1930s and early 1940s. Former Grays “back-up batboy” Elijah Miller recalled in a 2006 interview that the team

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215 See “Assessment of Integrity,” page 10 of this document.
played at West Field during the week and at Forbes Field on weekends when the Pittsburgh Pirates were out-of-town.  

West Field, though reported to be in rough condition by a visitor in 2009, appears to retain significant historical integrity to its period of use as a home field by the Homestead Grays. Its historical association with the exceptional NNL team the Homestead Grays is significant and it is suggested that additional documentation should be completed to establish the national significance of this venue.

**Roesink Stadium (sometimes called Hamtramck Stadium)**

Detroit, Michigan

Roesink Stadium was built in 1929-30 by John Roesink, then-owner of the Detroit Stars, an affiliate of the first Negro National League (NNL [I]). Roesink, a white Detroit businessman, intended the stadium to be the home field for his all-black team. The opening game at the stadium was a Negro National League [I] game between the Detroit Stars and the Cuban Stars on May 11, 1930. The stadium served as a home field for the NNL [I] Detroit Stars from 1930-31, hosted the Detroit Wolves in 1932, and the NNL [II] Detroit Stars in 1933 and 1937. It also hosted various neutral-site games for other teams.

Constructed of concrete, steel, and wood framing, in 1941 the grandstand was renovated and expanded by the Wayne County Road Commission using WPA funds. Sometime in the 1970s, the grandstand was cut back to its current, greatly reduced footprint. The stadium was in use for baseball until sometime in the 1990s, but while it remains as part of Veterans Park, it is not currently in use for baseball. Located in the Hamtramck section of Detroit, this small ball park is sometimes confused with the nearby Keyworth Stadium, a football stadium also sometimes called Hamtramck Stadium. Thus the Roesink Stadium name is preferred.

Roesink Stadium should be subjected to further research to discover its potential for national significance for its historical association with Negro professional baseball. However, the historical integrity of the stadium may reduce its potential as a nationally significant site.

**Perry Stadium (currently Owen J. Bush Stadium)**

Indianapolis, Indiana

Designed by the architectural firm Pierre & Wright and constructed in 1931, the stadium was originally called Perry Stadium and renamed Owen J. Bush Stadium in 1967. The concrete and brick building features an Art Deco style entry pavilion, seats 12,000, and was said to have the appearance of Wrigley Field with an ivy-covered red-brick outfield wall. Owen J. Bush Stadium was the home field of the minor league Indianapolis Indians until 1996. The stadium was listed on the National Register of Historic Places in 1992.

Perry (Bush) Stadium appears to have a relatively strong association with Negro professional baseball, particularly within the Midwestern-based Negro American League (NAL). The stadium hosted several local

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216 “Rebuilding the Grays homefield,” Kevin Kirkland, August 11, 2006, Pittsburgh Post-Gazette, www.post-gazette.com. The Grays used Greenlee Field as their alternate home field from 1935 until 1938. Greenlee Field was demolished in 1938 and they likely moved that year to West Field.

217 www.alltheballparks.com/2009/06/day-35-west-field.html (last accessed July 9, 2012). The “rough” condition of West Field appears comparable to the current condition of Hinchliffe Stadium. The conditions of these two stadiums, both closely associated with Negro professional baseball, underscores the importance of their preservation in order to help preserve and tell the history of segregated baseball in the United States.

NAL teams between 1937 and 1954: the Indianapolis Athletics in 1937, the Indianapolis ABCs in 1938-1939, the Indianapolis Crawfords in 1940, and the Indianapolis Clowns from 1943-1954. Significant games played there include: game 5 of the 1943 Negro World Series, the 1952 and 1954 Negro American League Pennant, the 1950 and 1951 Negro American League East Division Pennant. The stadium’s long association with the Indianapolis Clowns presents another important aspect of the era of segregated baseball. While the team attracted strong attendance records, it is said that “the success of the Clowns…lay in their strong appeal among whites who found the blend of comedy and athleticism irresistible.” Their success was controversial in that they catered primarily to a white audience and were seen by some blacks as detrimental to racial equality. Negro League baseball historian Neil Lanctot observed: “While perhaps prolonging the league’s survival, the comedy of the Clowns ultimately moved black professional baseball away from its original purpose and offered little to African Americans, who instead turned to the exploits of a growing number of black major leaguers as a source of racial pride.”

[Editor’s Note: Portions of Perry (Bush) Stadium were demolished in 2012 as part of a project to convert the stadium into condominiums and apartments. It no longer retains a high degree of integrity.]

**Red Bird Stadium (currently known as Cooper Stadium)**
Columbus, Ohio

Built in 1931, Red Bird Stadium operated as the minor league home park for the Columbus Red Birds. The stadium hosted games by the NNL Columbus Bluebirds in 1933 and the NNL Columbus Elite Giants in 1935. Additional research may reveal more consistent play. Significantly Red Bird Stadium hosted the 1943 Negro World Series game between the Homestead Grays and the Birmingham Black Barons as a neutral site. In 1977, the concrete and steel stadium was renovated. Skyboxes were added to the roof over the grandstand and the field was covered with Astroturf. The field was returned to real turf in 1999. After reopening in 1977, the stadium was renamed Franklin County Stadium. In 1984 it was again renamed as Cooper Stadium. The last game at the Stadium was played in 2008.

The fate of Cooper Stadium has been under debate since that time, but in February 2011, members of the Columbus city development commission gave unanimous approval for a plan to convert the field to an automobile racetrack and build an automotive research center on the site. The city council voted to approve the required rezoning in June 2011, allowing the redevelopment plan to move forward. The group which plans to redevelop the stadium state that some elements of the historic stadium will be preserved, including the more than 8,000 grandstand seats, the luxury boxes, and the former “Captain’s Club.”

Though Red Bird Stadium (Cooper Stadium) may have significant historic associations with Negro professional baseball that rises to the level of national significance, it appears its historical integrity is destined to be significantly eroded by the planned redevelopment.

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219 [http://projectballpark.org/history/nal/bush.html](http://projectballpark.org/history/nal/bush.html).
220 Lanctot, p. 283.
221 Ibid., p. 284.
222 [http://denneycompanies.com/2012/05/bush-stadium-demolition/](http://denneycompanies.com/2012/05/bush-stadium-demolition/).
223 [http://www.projectballpark.org/history/nnl2.html](http://www.projectballpark.org/history/nnl2.html).
Southern Venues with Potential National Significance

Rickwood Field
Birmingham, Alabama
National Register of Historic Places, 1993

Rickwood Field was listed on the National Register of Historic Places in 1993 with national significance as the “oldest baseball grandstand on the same site in the United States.” Built in 1910 by Birmingham Barons owner Rick Woodward, the steel and concrete construction today includes a covered grandstand, seating for more than 9,000 fans, a front office, concessions, restrooms, and locker rooms located under the grandstand. The Spanish Mission style exterior detailing was added in the 1920s. Rickwood Field served as the home field of the minor league team the Birmingham Barons.

Rickwood Field also potentially gains national significance as a venue for Negro professional baseball play. The field served as the home field for the Birmingham Black Barons, affiliates of the Negro Southern League in the 1920s and 1930s and of the Negro American League from 1936 through the 1950s. Though some scholars argue that the quality of play was of a lower caliber than that found in Negro National League venues, the NAL Birmingham Black Barons played several times in World Series games against the NNL Homestead Grays, and four future Hall-of-Famers played for the Black Barons: Willie Mays, Satchel Paige, Bill Foster, and Mule Suttles.

Rickwood Field, where racially segregated seating in the stands was enforced by a city segregation ordinance, is potentially nationally significant for its ability to tell the story of Negro professional baseball in the rigidly segregated society of the American South. The restored stadium retains a high degree of historical integrity to that period of use although it is unknown if evidence of the segregated seating remains in place.

Durkee Field (currently J. P. Small Memorial Stadium)
Jacksonville, Florida

Durkee Field was constructed as the Jacksonville municipal stadium in 1912 and reconstructed in 1936 after the original was destroyed by fire. The stadium features a concrete and brick grandstand covered with a steel canopy, said to have been constructed to include a separate section to seat African Americans. There appears to be no evidence of the segregated seating today (2011). In 1985, the venue underwent renovations including new aluminum seats, new sod, and improved dugouts and was renamed J. P. Small Memorial Stadium. A second renovation in 2005 included reopening of the arched openings, repointing the masonry, a new ADA ramp, replacement doors, installation of a safety railing atop the grandstand, and the addition of a small museum.

The stadium served as the home field for the Jacksonville Red Caps, who played within the Negro Southern League, considered a minor league, and in 1938 and 1941-42 while they were affiliated with the Negro American League.226 Significantly, it was at Durkee Field that the Jersey City Giants held their spring training in 1946 when the Giants were scheduled to play the Montreal Royals, a team that included Jackie Robinson and John Wright. Integrated play was prohibited by the Jacksonville Playground and Recreation Board, which

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“pledged to bar Robinson and Wright from the park.” The Royals, a minor league farm team for the Brooklyn Dodgers, canceled the game rather than play without Robinson and Wright. In 1953, Durkee Field was again at the center of baseball’s integration story when it “became the location of the first games played by the newly integrated Jacksonville Braves that included a 19-year-old Hank Aaron.” They were the first team in the Class A-South Atlantic League to break the color line in minor league baseball.

Durkee Field has a significant association with Negro professional baseball as it unfolded in the American South and appears to retain a high degree of integrity to its historic appearance. Further research should be done to determine the extent of play that took place on the field.

Travelers Field (renamed Ray Winder Field in 1966)
Little Rock, Arkansas

Built in 1931, Travelers Field was the home of white minor league team the Little Rock Travelers. The Field sat approximately 7,000 fans and featured a large-covered grandstand with permanent seating and a refreshment area provided beneath. The city-owned stadium was still standing in May 2011 when the wood and iron grandstand seats were given away prior to the stadium’s anticipated demolition.

Travelers Field hosted the Little Rock Grays, most often an independent team, but in 1932, an affiliate of the Negro Southern League. In the 1940s the Birmingham Black Barons played at Travelers Fields and the Kansas City Monarchs played there between 1957 and 1961.

Although Travelers Field appears to have a relatively strong association with Negro professional baseball, it was generally outside of the major leagues of Negro League baseball. The stadium retained a high degree of historical integrity until the seats were removed and its demolition appears imminent.

[Editor’s Note: Demolition of Travelers (Ray Winder) Field was underway in July, 2012.]

Engel Stadium
Chattanooga, Tennessee
National Register of Historic Places, 2009

Engel Stadium was constructed in 1929-30 as the home field of the minor league team the Chattanooga Lookouts, an affiliate of the Washington Senators. Renovations occurred in 1988, including an exterior renovation, a two-story front office built on the first base line, a new press box on the roof, and a restaurant built in the concourse. Despite these renovations, Engel Stadium retains a high degree of historical integrity with its steel canopy over the grandstand intact and much of the original iron and wood seating still in place.

The stadium hosted the Negro Southern League’s Chattanooga Choo-Choos from 1940 through 1946, when the team folded. During the 1945 and 1946 seasons, the team’s roster included 16-year old Willie Mays, who played while he completed his ninth and tenth grades in high school. Other teams said to have played at

231 http://www.engelfoundation.com/Historical-Importance/Chattanooga-Choo-Choos/.
Engel Stadium include the Nashville Elite Giants (probably NNL [I]) in the early 1930s and the Raleigh Tigers in 1959.

Plans for the restoration of Engel Stadium by the Engel Foundation bode well for the continued preservation of the building’s historical integrity. Though most closely associated with the Negro minor league team the Chattanooga Choo-Chooos, additional research may build a case for the national significance of Engel Stadium for its role in the era of segregated Negro professional baseball, particularly as it played out in the South.

Complete List (to date) of Venues Associated with Negro Professional Baseball

Extant – “Other” Baseball Venues with Documented Association with Negro Professional Baseball and Historical Integrity (listed alphabetically)

1. Durkee Field (James P. Small Stadium), Jacksonville, Florida
2. Engel Stadium, Chattanooga, Tennessee
3. Hinchliffe Stadium, Paterson, New Jersey
4. Perry Stadium (Owen J. Bush Stadium), Indianapolis, Indiana [Note: Loss of integrity in 2012]
5. Red Bird Stadium (Cooper Stadium), Columbus, Ohio
6. Rickwood Field, Birmingham, Alabama
7. Roesink Stadium (Hamtramck Stadium), Detroit, Michigan
8. Travelers Field (Ray Winder Field), Little Rock, Arkansas [Note: Demolished in 2012]
9. West Field (William Knight Field; Grays Field), Munhall, Pennsylvania

Extant – “Other” Baseball Venues with Insufficient Documentation of Nationally Significant Historical Associations with Negro Professional Baseball and/or Historical Integrity (listed alphabetically)

10. Ainsworth Field, Erie, Pennsylvania
11. Brewer H.S. Field, Greenwood, South Carolina
12. C.W. Marsh Field, Muskegon, Michigan
13. Cardines Field, Newport, Rhode Island
14. Chavis Park, Raleigh, North Carolina
15. Clemens Field, Hannibal, Missouri
16. Cramton Bowl, Montgomery, Alabama
17. Golden Park, Columbus, Georgia
18. Grayson Stadium, Savannah, Georgia
19. Grove Street Oval (Monte Irvin Field), East Orange, New Jersey
20. Hicks Field, Edenton, North Carolina
22. League Park IV, Cleveland, Ohio
23. Legion Field, Lake Charles, Louisiana
24. Luther Williams Stadium, Macon, Georgia
25. Municipal Stadium, Hagerstown, Maryland
26. Parkway Field, Louisville, Kentucky
27. Riley Park, Sumter, South Carolina
28. Shrewbridge Park, Chicago, Illinois
29. Talbert Park, Rocky Mount, North Carolina
30. Valley Field, Grand Rapids, Michigan
31. War Memorial Stadium, Greensboro, North Carolina

No Longer Extant – Black-Owned or Leased Venues (listed alphabetically)

32. 44th and Parkside, Philadelphia, Pennsylvania (demolished, 1949)
33. Bugle Field, Baltimore, Maryland (demolished 1949)
34. Central Park, Pittsburgh, Pennsylvania (demolished 1925)
35. Dyckman Oval, Manhattan, NYC, New York (demolished 1938)
36. Greenlee Field, Pittsburgh, Pennsylvania (demolished 1938)
37. Martin’s Stadium (Lewis Park; Martin Park), Memphis, Tennessee (demolished 1961)
38. Peters’ Park, Danville, Virginia (demolished n.d.)
39. Schorling Park (South Side Park III), Chicago, Illinois (destroyed by fire 1940)
40. Stars Park, St. Louis, Missouri (demolished, n.d.)
41. Wilson Park, Nashville, Tennessee (demolished 1946)

No Longer Extant – Major League Baseball Venues (listed alphabetically)
42. Briggs Stadium (Tiger Stadium), Detroit, Michigan (demolished, n.d.)
44. Ebbets Field, Brooklyn, NYC, New York (demolished 1960)
45. Forbes Field, Pittsburgh, Pennsylvania (demolished 1971)
47. Huntington Grounds I, Philadelphia, Pennsylvania (demolished 1894)
48. Polo Grounds, New York City, New York (demolished 1964)
49. Recreation Park, Pittsburgh, Pennsylvania (demolished n.d.)
51. South End Grounds (I), Boston, Massachusetts (demolished 1887)
52. Sportsman’s Park, St. Louis, Missouri (demolished, n.d.)
53. Terrapin Park (Oriole Field V), Baltimore, Maryland (demolished 1944)
54. Yankee Stadium, Bronx, NYC, New York (demolished 2009)

No Longer Extant – “Other” Baseball Venues (listed alphabetically)
55. 13th and Anne Streets Park, Wilmington, North Carolina (demolished n.d.)
56. 37th and Butler, Chicago, Illinois (demolished n.d.)
57. 59th Street Bridge sandlot, New York, New York (demolished n.d.)
58. 67th and Langley, Chicago, Illinois (demolished n.d.)
59. ABC’s Field, Indianapolis, Indiana (demolished, n.d.)
60. American Legion Field, Wallace, North Carolina (demolished, n.d.)
61. American Legion Park, Newton, North Carolina (demolished, n.d.)
62. American Legion Stadium, Wilmington, NC (demolished, n.d.)
63. Ammon Field, Pittsburgh, Pennsylvania (demolished, n.d.)
64. Asbury Ball Park, Chicago, Illinois (demolished, n.d.)
65. Association Park II, Kansas City, Missouri (demolished, n.d.)
66. Bacharach Park, Atlantic City, New Jersey (demolished, n.d.)
68. Bellview Park, Memphis, Tennessee (demolished, n.d.)
69. Beyerle’s Park (Hooper Field; Tate Field), Cleveland, Ohio (demolished, n.d.)
70. Bigler Field, Philadelphia, Pennsylvania (demolished, n.d.)
71. Borchert Field, Milwaukee, Wisconsin (demolished 1954)
73. Buff Stadium, Houston, Texas (demolished n.d.)
74. Bugle Triple A Stadium, Indianapolis, Indiana (demolished, n.d.)
75. Butler Field, Butler, Pennsylvania (demolished, n.d.)
76. Casino Park, Monroe, Louisiana (demolished 1941)
Appendix G

77. Catholic Protectory Oval, Bronx, NYC, New York (demolished 1939)
78. Centennial Field, Tallahassee, Florida (demolished 1974)
80. Clark Field, Austin, Texas (demolished 1975)
81. Clarksville Stadium, Clarksville, Virginia (demolished, n.d.)
82. College Hill Park, Montgomery, Alabama (demolished, n.d.)
83. Crosley Field (Redland Field), Cincinnati, Ohio (demolished 1972)
84. Crump Park, Little Rock, Arkansas (demolished n.d.)
85. Cubs Stadium, Cleveland, Ohio (demolished n.d.)
86. Cyclee Park, McKeesport, Pennsylvania (demolished, n.d.)
87. Dean Park, Crawfordsville, Illinois (demolished, n.d.)
88. DeQuindre Park (Linton Field; Cubs Park), Detroit, Michigan (demolished, n.d.)
89. Devereaux Meadow, Raleigh, North Carolina (demolished 1979)
90. Dexter (Bushwicks) Park, Brooklyn, NYC, New York (demolished 1955)
91. Druid Hill (ball field), Baltimore, MD (demolished, n.d.)
92. Ducks Park, Dayton, Ohio (demolished, n.d.)
93. Dunn Field, Trenton, New Jersey (demolished n.d.)
94. Easton Street Park, St. Louis, Missouri (demolished, n.d.)
95. Eastside Park, Paterson, New Jersey (demolished n.d.)
96. Eclipse Park (I), Louisville, Kentucky (demolished 1892)
97. Giants Park (Tiger Park; Metropolitan Park), St. Louis, Missouri (demolished, n.d.)
98. Gordy Park, Salisbury, Maryland (demolished, n.d.)
100. Halloran Park, Lima, Ohio (demolished, n.d.)
101. Hampton Institute Field, Hampton, Virginia (demolished, n.d.)
102. Handlan’s Park, St. Louis, Missouri (demolished n.d.)
103. Hardware Field (Kinsman Hardware Field), Cleveland, Ohio (demolished n.d.)
104. Hartwell Field, Mobile, Alabama (demolished 1983)
106. Hebrew Orphan Asylum Oval, New York, New York (demolished ca. 1971)
107. Highland Park Stadium, Kokomo, Indiana (demolished 1985)
108. Hilldale Park, Darby/Youden, Pennsylvania (demolished, n.d.)
110. Island Stadium, Harrisburg, Pennsylvania (demolished 1952)
111. Lakeside Park, Decatur, Alabama (demolished, n.d.)
112. League Park II, Akron, Ohio, (demolished 1923)
113. Lebanon Memorial Park, Lebanon, Indiana (demolished, n.d.)
114. Legion Field, Decatur, Alabama (demolished n.d.)
115. Legion Field, Whiteville, NC (demolished, n.d.)
117. Luna Bowl, Cleveland, Ohio (demolished 1938)
118. MacArthur Stadium, Syracuse, New York (demolished 1997)
119. Mack Park, Detroit (Hamtramck), Michigan (destroyed by fire 1929)
120. Mahaffey Park, Canton, Ohio (demolished, n.d.)
121. Mark Grey Athletic Park (Mark Park, Zanesville, Ohio (demolished 1939)
122. Market Street Park, St. Louis, Missouri (demolished, n.d.)
123. Maryland Baseball Park, Baltimore, Maryland (demolished, n.d.)
<table>
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<th>Appendix G</th>
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</thead>
<tbody>
<tr>
<td>125. Meadowbrook Oval, Newark, New Jersey (demolished, n.d.)</td>
</tr>
<tr>
<td>126. Mills Stadium, Chicago, Illinois (demolished n.d.)</td>
</tr>
<tr>
<td>127. Mounds Ballfield, Mounds, Illinois (demolished, n.d.)</td>
</tr>
<tr>
<td>128. Municipal Field, Homestead, Pennsylvania (demolished, n.d.)</td>
</tr>
<tr>
<td>129. Municipal Park, Springfield, Ohio (demolished, n.d.)</td>
</tr>
<tr>
<td>130. Municipal Stadium (Muehlebach or Ruppert Stadium), Kansas City, Missouri (demolished 1976)</td>
</tr>
<tr>
<td>131. Municipal Stadium, Greenville, South Carolina (demolished, n.d.)</td>
</tr>
<tr>
<td>132. Municipal Stadium, Rocky Mount, North Carolina (demolished 1987)</td>
</tr>
<tr>
<td>133. Neil Park, Columbus, Ohio (demolished, n.d.)</td>
</tr>
<tr>
<td>134. Newark Schools Stadium, Newark, New Jersey (demolished, n.d.)</td>
</tr>
<tr>
<td>136. Northside Park, Cincinnatti, Ohio (demolished, n.d.)</td>
</tr>
<tr>
<td>137. Northwestern Avenue Grounds, Indianapolis, Indiana (demolished 1917)</td>
</tr>
<tr>
<td>139. Old Armory Field, Lumberton, North Carolina (demolished n.d.)</td>
</tr>
<tr>
<td>140. Olema Field, Irvington, New Jersey (demolished, n.d.)</td>
</tr>
<tr>
<td>141. Olympic Field, New York, New York (demolished ca. 1947)</td>
</tr>
<tr>
<td>142. Oriole Park I, Baltimore, Maryland (demolished, n.d.)</td>
</tr>
<tr>
<td>143. Page Park, Monessen, Pennsylvania (demolished n.d.)</td>
</tr>
<tr>
<td>144. Paradeway Park, Kansas City, Missouri (demolished, n.d.)</td>
</tr>
<tr>
<td>145. Parkside Field, Chicago, Illinois (demolished, n.d.)</td>
</tr>
<tr>
<td>146. Passon Field (Philadelphia)</td>
</tr>
<tr>
<td>147. Pelican’s Stadium, New Orleans, Louisiana (demolished 1957)</td>
</tr>
<tr>
<td>149. Pennsylvania Railroad Park, Altoona, Pennsylvania (demolished, n.d.)</td>
</tr>
<tr>
<td>150. Piqua Park, Piqua, Illinois (demolished, n.d.)</td>
</tr>
<tr>
<td>151. Playstead at Franklin Park, Medford, Massachusetts (demolished, n.d.)</td>
</tr>
<tr>
<td>152. Point Stadium, Johnstown, Pennsylvania (demolished 2005)</td>
</tr>
<tr>
<td>153. Ponce De Leon Park, Atlanta, Georgia (demolished 1967)</td>
</tr>
<tr>
<td>154. Pyott’s Park, Chicago, Illinois (demolished 1941)</td>
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<td>155. Queens Park, New York, New York (demolished 1951)</td>
</tr>
<tr>
<td>156. Razzberry Park, Camden, New Jersey (demolished n.d.)</td>
</tr>
<tr>
<td>158. Red Wing Stadium, Rochester, New York (demolished 1999)</td>
</tr>
<tr>
<td>159. Riverside Park, Indianapolis, Indiana (demolished, n.d.)</td>
</tr>
<tr>
<td>160. Rockingham Stadium, Rockingham, North Carolina (demolished, n.d.)</td>
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<tr>
<td>161. Roosevelt Stadium, Jersey City, New Jersey (demolished 1984-85)</td>
</tr>
<tr>
<td>162. Rossmere Park, Lancaster, Pennsylvania (demolished, n.d.)</td>
</tr>
<tr>
<td>163. Ruppert Stadium, Newark, New Jersey (demolished 1967)</td>
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<td>165. Russwood Park, Memphis, Tennessee (destroyed by fire 1960)</td>
</tr>
<tr>
<td>166. Sicks Stadium, Seattle, Washington (demolished 1979)</td>
</tr>
<tr>
<td>167. Smithfield Stadium, Smithfield, North Carolina (demolished, n.d.)</td>
</tr>
<tr>
<td>168. Soldier Field, Chicago, Illinois (demolished 1903)</td>
</tr>
<tr>
<td>169. South End Park, St. Louis, Missouri (demolished, n.d.)</td>
</tr>
<tr>
<td>170. Speedway Park, Indianapolis, Indiana (demolished, n.d.)</td>
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<tr>
<td>171. Spencer Field, Chicago, Illinois (demolished, n.d.)</td>
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<tr>
<td>172. Sprague Field, Bloomfield, New Jersey (demolished, n.d.)</td>
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</tbody>
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174. Stars Field, New Orleans, Louisiana (demolished, n.d.)
175. Sulphur Dell (I), Nashville, Tennessee (demolished 1926)
176. Sulphur Dell (II), Nashville, Tennessee (demolished 1960s)
177. Swayne Field, Toledo, Ohio (demolished 1955)
178. Triborough Stadium, New York City, New York (demolished, n.d.)
179. Turner Field, Hammond, Indiana (demolished, n.d.)
180. Vandeventer Lot II, St. Louis, Missouri (demolished n.d.)
181. Venable Stadium, Baltimore, Maryland (demolished, n.d.)
182. Walnut Park, Muncie, Indiana (demolished n.d.)
183. Washington Park, Pittsburgh, Pennsylvania (demolished n.d.)
184. West End Grounds, Harrisburg, Pennsylvania (demolished n.d.)
185. Westport Stadium, Baltimore, Maryland (demolished, n.d.)
186. Whittemore Athletic Field, Conway, South Carolina (demolished n.d.)
187. Wilmington Park, Wilmington, Delaware (demolished 1963)
188. Wivchar Stadium, Riverhead, New York (demolished n.d.)
9. MAJOR BIBLIOGRAPHICAL REFERENCES


Previous documentation on file (NPS):

- Preliminary Determination of Individual Listing (36 CFR 67) has been requested.
- X Previously Listed in the National Register.
- X Previously Determined Eligible by the National Register.
- X Designated a National Historic Landmark.
- Recorded by Historic American Buildings Survey: #
- Recorded by Historic American Engineering Record: #

Primary Location of Additional Data:

- X State Historic Preservation Office
- Other State Agency
10. GEOGRAPHICAL DATA

Acreage of Property: 5.7 acres

UTM References: Zone  Easting  Northing
                  18       568900   4529820

Verbal Boundary Description:

The Hinchliffe Stadium boundary includes the stadium building and associated field encompassed within Block B0128, Lot 2, Parcel 3, Tracts 1, 2, 3, part of Tract 4 to include the stadium restroom building, and the south corner lot on which the maintenance building stands (apparently never conveyed), as referenced on the attached 2004 Boundary Survey completed by Mercator Land Surveying, Inc. for Mega Engineering, Inc. (photo copy, not to scale). Deed reference to Board of Education of the City of Paterson, Passaic County, NJ, DB 877, Page 535.

Boundary Justification:

The Hinchliffe Stadium boundary encompasses the historic stadium building and its associated field.
11. FORM PREPARED BY

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NATIONAL HISTORIC LANDMARKS PROGRAM
September 4, 2012
APPENDIX H

Paterson Great Falls National Historical Park Legislation
An Act

To provide for the administration of certain Presidio properties at minimal cost to the Federal taxpayer, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.

This Act may be cited as the "Omnibus Parks and Public Lands Management Act of 1996".

DIVISION I

TITLE I—THE PRESIDIO OF SAN FRANCISCO

Sec. 101. Findings.
Sec. 102. Authority and responsibility of the Secretary of the Interior.
Sec. 103. Establishment of the Presidio Trust.
Sec. 104. Duties and authorities of the Trust.
Sec. 105. Limitations on funding.
Sec. 106. General Accounting Office study.

TITLE II—BOUNDARY ADJUSTMENTS AND CONVEYANCES

Sec. 201. Yucca House National Monument boundary adjustment.
Sec. 203. Pictured Rocks National Lakeshore boundary adjustment.
Sec. 204. Independence National Historical Park boundary adjustment.
Sec. 205. Craters of the Moon National Monument boundary adjustment.
Sec. 206. Hagerman Fossil Beds National Monument boundary adjustment.
Sec. 207. Wupatki National Monument boundary adjustment.
Sec. 208. Walnut Canyon National Monument boundary modification.
Sec. 209. Butte County, California land conveyance.
Sec. 211. Colonial National Historical Park.
Sec. 212. Cuprum, Idaho relief.
Sec. 213. Relinquishment of interest.
Sec. 214. Modoc National Forest.
Sec. 215. Conveyance to City of Sumpter, Oregon.
Sec. 216. Cumberland Gap National Historical Park.
Sec. 217. Alpine School District.
Sec. 218. Merced Irrigation District land exchange.
Sec. 219. Father Aull site transfer.
Sec. 220. Coastal Barrier Resources System.
Sec. 221. Conveyance to Del Norte County Unified School District.

TITLE III—EXCHANGES

Sec. 301. Targhee National Forest land exchange.
Sec. 302. Anaktuvuk Pass land exchange.
Sec. 303. Alaska Peninsula subsurface consolidation.
Sec. 305. Arkansas and Oklahoma land exchange.
Sec. 306. Big Thicket National Preserve.
Sec. 307. Lost Creek land exchange.
Sec. 308. Cleveland National Forest land exchange.
(4) By amending subsection (g) of section 205 to read as follows:

“(g) Any Federal agency may provide the Council, with or without reimbursement as may be agreed upon by the Chairman and the agency, with such funds, personnel, facilities and services under its jurisdiction and control as may be needed by the Council to carry out its duties, to the extent that such funds, personnel, facilities, and services are requested by the Council and are otherwise available for the purpose. Any funds provided to the Council pursuant to this subsection must be expended by the end of the fiscal year following the fiscal year in which the funds are received by the Council. To the extent of available appropriations, the Council may obtain by purchase, rental, donation, or otherwise, such additional property, facilities, and services as may be needed to carry out its duties and may also receive donations of money for such purpose, and the Executive Director is authorized, in his discretion, to accept, hold, use, expend, and administer the same for the purposes of this Act.”.

SEC. 510. GREAT FALLS HISTORIC DISTRICT, NEW JERSEY.

(a) PURPOSES.—The purposes of this section are—

(1) to preserve and interpret, for the educational and inspirational benefit of the public, the contribution of our national heritage of certain historic and cultural lands and edifices of the Great Falls Historic District, with emphasis on harnessing this unique urban environment for its educational and recreational value; and

(2) to enhance economic and cultural redevelopment within the District.

(b) DEFINITIONS.—In this section:

(1) DISTRICT.—The term “District” means the Great Falls Historic District established by subsection (c).

(2) SECRETARY.—The term “Secretary” means the Secretary of the Interior.

(3) HISTORIC INFRASTRUCTURE.—The term “historic infrastructure” means the District’s historic raceway system, all four stories of the original Colt Gun Mill, including belltower, and any other structure that the Secretary determines to be eligible for the National Register of Historic Places.

(c) GREAT FALLS HISTORIC DISTRICT.—

(1) ESTABLISHMENT.—There is established the Great Falls Historic District in the city of Paterson, in Passaic County, New Jersey.

(2) BOUNDARIES.—The boundaries of the District shall be the boundaries specified by the Great Falls Historic District listed on the National Register of Historic Places.

(d) DEVELOPMENT PLAN.—The Secretary may make grants and enter into cooperative agreements with the State of New Jersey, local governments, and private nonprofit entities under which the Secretary agrees to pay not more than 50 percent of the costs of—

(1) preparation of a plan for the development of historic, architectural, natural, cultural, and interpretive resources within the District;

(2) implementation of projects approved by the Secretary under the development plan; and
Appendix H

PUBLIC LAW 104–333—NOV. 12, 1996 110 STAT. 4159

(3) a market analysis assessing the economic development potential of the District and recommending steps to be taken to encourage economic development and revitalization in a manner consistent with the District's historic character.

(e) RESTORATION, PRESERVATION, AND INTERPRETATION OF PROPERTIES.—

(1) COOPERATIVE AGREEMENTS.—The Secretary may enter into cooperative agreements with the State of New Jersey, local governments and nonprofit entities owning property within the District under which the Secretary may—

(A) pay not more than 50 percent of the cost of restoring, repairing, rehabilitating, and improving historic infrastructure within the District;
(B) provide technical assistance with respect to the preservation and interpretation of properties within the District; and
(C) mark and provide interpretation of properties within the District.

(2) PROVISIONS.—A cooperative agreement under paragraph (1) shall provide that—

(A) the Secretary shall have the right of access at reasonable times to public portions of the property for interpretive and other purposes;
(B) no change or alteration may be made in the property except with the agreement of the property owner, the Secretary, and any Federal agency that may have regulatory jurisdiction over the property; and
(C) any construction grant made under this section shall be subject to an agreement that provides that conversion, use, or disposal of the project so assisted for purposes contrary to the purposes of this section shall result in a right of the United States to compensation from the beneficiary of the grant, and that provides for a schedule for such compensation based on the level of Federal investment and the anticipated useful life of the project.

(3) APPLICATIONS.—

(A) IN GENERAL.—A property owner that desires to enter into a cooperative agreement under paragraph (1) shall submit to the Secretary an application describing how the project proposed to be funded will further the purposes of the District.

(B) CONSIDERATION.—In making such funds available under this subsection, the Secretary shall give consideration to projects that provide a greater leverage of Federal funds.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated from the Historic Preservation Fund authorized under the National Historic Preservation Act to the Secretary to carry out this section—

(1) $250,000 for grants and cooperative agreements for the development plan under subsection (d); and

(2) $50,000 for the provision of technical assistance and $3,000,000 for the provision of other assistance under cooperative agreements under subsection (e).

SEC. 511. NEW BEDFORD NATIONAL HISTORIC LANDMARK DISTRICT. 16 USC 410ddd.

(a) FINDINGS AND PURPOSES.—
the land exchange or construction of the road (including a challenge to the NEPA process, decisions, or any required permit process required to complete construction of the road), the 7-year deadline or the five-year extension period, as appropriate, shall be extended for a time period equivalent to the time consumed by the full adjudication of the legal challenge or related administrative process.

(2) INJUNCTION.—After a construction permit has been issued, if a court issues an injunction against construction of the road, the 7-year deadline or 5-year extension, as appropriate, shall be extended for a time period equivalent to time period that the injunction is in effect.

(d) APPLICABILITY OF SECTION 6405.—Upon the expiration of the legislative authority under this section, if a road has not been constructed, the land exchange shall be null and void and the land ownership shall revert to the respective ownership status prior to the land exchange as provided in section 6405.

TITLE VII—NATIONAL PARK SERVICE AUTHORIZATIONS

Subtitle A—Additions to the National Park System

SEC. 7001. PATerson GREAT FALLS NATIONAL HISTORICAL PARK, NEW JERSEY.

(a) DEFINITIONS.—In this section:

(1) CITY.—The term “City” means the City of Paterson, New Jersey.

(2) COMMISSION.—The term “Commission” means the Paterson Great Falls National Historical Park Advisory Commission established by subsection (e)(1).

(3) HISTORIC DISTRICT.—The term “Historic District” means the Great Falls Historic District in the State.

(4) MANAGEMENT PLAN.—The term “management plan” means the management plan for the Park developed under subsection (d).

(5) MAP.—The term “Map” means the map entitled “Paterson Great Falls National Historical Park—Proposed Boundary”, numbered T03/80,001, and dated May 2008.

(6) PARK.—The term “Park” means the Paterson Great Falls National Historical Park established by subsection (b)(1)(A).

(7) SECRETARY.—The term “Secretary” means the Secretary of the Interior.

(8) STATE.—The term “State” means the State of New Jersey.

(b) PATerson GREAT FALLS NATIONAL HISTORICAL PARK.—

(1) ESTABLISHMENT.—

(A) IN GENERAL.—Subject to subparagraph (B), there is established in the State a unit of the National Park System to be known as the “Paterson Great Falls National Historical Park”.

16 USC 410lll.
(B) CONDITIONS FOR ESTABLISHMENT.—The Park shall not be established until the date on which the Secretary determines that—

(i)(I) the Secretary has acquired sufficient land or an interest in land within the boundary of the Park to constitute a manageable unit; or

(II) the State or City, as appropriate, has entered into a written agreement with the Secretary to donate—

(aa) the Great Falls State Park, including facilities for Park administration and visitor services; or

(bb) any portion of the Great Falls State Park agreed to between the Secretary and the State or City; and

(ii) the Secretary has entered into a written agreement with the State, City, or other public entity, as appropriate, providing that—

(I) land owned by the State, City, or other public entity within the Historic District will be managed consistent with this section; and

(II) future uses of land within the Historic District will be compatible with the designation of the Park.

(2) PURPOSE.—The purpose of the Park is to preserve and interpret for the benefit of present and future generations certain historical, cultural, and natural resources associated with the Historic District.

(3) BOUNDARIES.—The Park shall include the following sites, as generally depicted on the Map:

(A) The upper, middle, and lower raceways.

(B) Mary Ellen Kramer (Great Falls) Park and adjacent land owned by the City.

(C) A portion of Upper Raceway Park, including the Ivanhoe Wheelhouse and the Society for Establishing Useful Manufactures Gatehouse.

(D) Overlook Park and adjacent land, including the Society for Establishing Useful Manufactures Hydroelectric Plant and Administration Building.


(F) The Rogers Locomotive Company Erecting Shop, including the Paterson Museum.

(G) The Great Falls Visitor Center.

(4) AVAILABILITY OF MAP.—The Map shall be on file and available for public inspection in the appropriate offices of the National Park Service.

(5) PUBLICATION OF NOTICE.—Not later than 60 days after the date on which the conditions in clauses (i) and (ii) of paragraph (1)(B) are satisfied, the Secretary shall publish in the Federal Register notice of the establishment of the Park, including an official boundary map for the Park.

(c) ADMINISTRATION.—

(1) IN GENERAL.—The Secretary shall administer the Park in accordance with—

(A) this section; and
(B) the laws generally applicable to units of the National Park System, including—
   (i) the National Park Service Organic Act (16 U.S.C. 1 et seq.); and
   (ii) the Act of August 21, 1935 (16 U.S.C. 461 et seq.).
(2) STATE AND LOCAL JURISDICTION.—Nothing in this section enlarges, diminishes, or modifies any authority of the State, or any political subdivision of the State (including the City)—
   (A) to exercise civil and criminal jurisdiction; or
   (B) to carry out State laws (including regulations) and rules on non-Federal land located within the boundary of the Park.
(3) COOPERATIVE AGREEMENTS.—
   (A) IN GENERAL.—As the Secretary determines to be appropriate to carry out this section, the Secretary may enter into cooperative agreements with the owner of the Great Falls Visitor Center or any nationally significant properties within the boundary of the Park under which the Secretary may identify, interpret, restore, and provide technical assistance for the preservation of the properties.
   (B) RIGHT OF ACCESS.—A cooperative agreement entered into under subparagraph (A) shall provide that the Secretary, acting through the Director of the National Park Service, shall have the right of access at all reasonable times to all public portions of the property covered by the agreement for the purposes of—
      (i) conducting visitors through the properties; and
      (ii) interpreting the properties for the public.
   (C) CHANGES OR ALTERATIONS.—No changes or alterations shall be made to any properties covered by a cooperative agreement entered into under subparagraph (A) unless the Secretary and the other party to the agreement agree to the changes or alterations.
   (D) CONVERSION, USE, OR DISPOSAL.—Any payment made by the Secretary under this paragraph shall be subject to an agreement that the conversion, use, or disposal of a project for purposes contrary to the purposes of this section, as determined by the Secretary, shall entitle the United States to reimbursement in amount equal to the greater of—
      (i) the amounts made available to the project by the United States; or
      (ii) the portion of the increased value of the project attributable to the amounts made available under this paragraph, as determined at the time of the conversion, use, or disposal.
   (E) MATCHING FUNDS.—
      (i) IN GENERAL.—As a condition of the receipt of funds under this paragraph, the Secretary shall require that any Federal funds made available under a cooperative agreement shall be matched on a 1-to-1 basis by non-Federal funds.
      (ii) FORM.—With the approval of the Secretary, the non-Federal share required under clause (i) may
be in the form of donated property, goods, or services from a non-Federal source.

(4) ACQUISITION OF LAND.—
(A) IN GENERAL.—The Secretary may acquire land or interests in land within the boundary of the Park by donation, purchase from a willing seller with donated or appropriated funds, or exchange.
(B) DONATION OF STATE OWNED LAND.—Land or interests in land owned by the State or any political subdivision of the State may only be acquired by donation.

(5) TECHNICAL ASSISTANCE AND PUBLIC INTERPRETATION.—
The Secretary may provide technical assistance and public interpretation of related historic and cultural resources within the boundary of the Historic District.

(d) MANAGEMENT PLAN.—
(1) IN GENERAL.—Not later than 3 fiscal years after the date on which funds are made available to carry out this subsection, the Secretary, in consultation with the Commission, shall complete a management plan for the Park in accordance with—
(A) section 12(b) of Public Law 91–383 (commonly known as the “National Park Service General Authorities Act”) (16 U.S.C. 1a–7(b)); and
(B) other applicable laws.

(2) COST SHARE.—The management plan shall include provisions that identify costs to be shared by the Federal Government, the State, and the City, and other public or private entities or individuals for necessary capital improvements to, and maintenance and operations of, the Park.

(3) SUBMISSION TO CONGRESS.—On completion of the management plan, the Secretary shall submit the management plan to—
(A) the Committee on Energy and Natural Resources of the Senate; and
(B) the Committee on Natural Resources of the House of Representatives.

(e) PATERNOR GREAT FALLS NATIONAL HISTORICAL PARK ADVISORY COMMISION.—
(1) ESTABLISHMENT.—There is established a commission to be known as the “Paterson Great Falls National Historical Park Advisory Commission”.

(2) DUTIES.—The duties of the Commission shall be to advise the Secretary in the development and implementation of the management plan.

(3) MEMBERSHIP.—
(A) COMPOSITION.—The Commission shall be composed of 9 members, to be appointed by the Secretary, of whom—
(i) 4 members shall be appointed after consideration of recommendations submitted by the Governor of the State;
(ii) 2 members shall be appointed after consideration of recommendations submitted by the City Council of Paterson, New Jersey;
(iii) 1 member shall be appointed after consideration of recommendations submitted by the Board of Chosen Freeholders of Passaic County, New Jersey; and
(iv) 2 members shall have experience with national parks and historic preservation.

(B) INITIAL APPOINTMENTS.—The Secretary shall appoint the initial members of the Commission not later than the earlier of—

(i) the date that is 30 days after the date on which the Secretary has received all of the recommendations for appointments under subparagraph (A); or

(ii) the date that is 30 days after the Park is established in accordance with subsection (b).

(4) TERM; VACANCIES.—

(A) TERM.—

(i) IN GENERAL.—A member shall be appointed for a term of 3 years.

(ii) REAPPOINTMENT.—A member may be reappointed for not more than 1 additional term.

(B) VACANCIES.—A vacancy on the Commission shall be filled in the same manner as the original appointment was made.

(5) MEETINGS.—The Commission shall meet at the call of—

(A) the Chairperson; or

(B) a majority of the members of the Commission.

(6) QUORUM.—A majority of the Commission shall constitute a quorum.

(7) CHAIRPERSON AND VICE CHAIRPERSON.—

(A) IN GENERAL.—The Commission shall select a Chairperson and Vice Chairperson from among the members of the Commission.

(B) VICE CHAIRPERSON.—The Vice Chairperson shall serve as Chairperson in the absence of the Chairperson.

(C) TERM.—A member may serve as Chairperson or Vice Chairman for not more than 1 year in each office.

(8) COMMISSION PERSONNEL MATTERS.—

(A) COMPENSATION OF MEMBERS.—

(i) IN GENERAL.—Members of the Commission shall serve without compensation.

(ii) TRAVEL EXPENSES.—Members of the Commission shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for an employee of an agency under subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place of business of the member in the performance of the duties of the Commission.

(B) STAFF.—

(i) IN GENERAL.—The Secretary shall provide the Commission with any staff members and technical assistance that the Secretary, after consultation with the Commission, determines to be appropriate to enable the Commission to carry out the duties of the Commission.

(ii) DETAIL OF EMPLOYEES.—The Secretary may accept the services of personnel detailed from—

(I) the State;

(II) any political subdivision of the State; or
Appendix H

123 STAT. 1188 PUBLIC LAW 111–11—MAR. 30, 2009

(III) any entity represented on the Commission.

(9) FACA NONAPPLICABILITY.—Section 14(b) of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the Commission.

(10) TERMINATION.—The Commission shall terminate 10 years after the date of enactment of this Act.

(f) STUDY OF HINCHLIFFE STADIUM.—

(1) IN GENERAL.—Not later than 3 fiscal years after the date on which funds are made available to carry out this section, the Secretary shall complete a study regarding the preservation and interpretation of Hinchliffe Stadium, which is listed on the National Register of Historic Places.

(2) INCLUSIONS.—The study shall include an assessment of—

(A) the potential for listing the stadium as a National Historic Landmark; and

(B) options for maintaining the historic integrity of Hinchliffe Stadium.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 7002. WILLIAM JEFFERSON CLINTON BIRTHPLACE HOME NATIONAL HISTORIC SITE.

(a) ACQUISITION OF PROPERTY; ESTABLISHMENT OF HISTORIC SITE.—Should the Secretary of the Interior acquire, by donation only from the Clinton Birthplace Foundation, Inc., fee simple, unencumbered title to the William Jefferson Clinton Birthplace Home site located at 117 South Hervey Street, Hope, Arkansas, 71801, and to any personal property related to that site, the Secretary shall designate the William Jefferson Clinton Birthplace Home site as a National Historic Site and unit of the National Park System, to be known as the "President William Jefferson Clinton Birthplace Home National Historic Site".

(b) APPLICABILITY OF OTHER LAWS.—The Secretary shall administer the President William Jefferson Clinton Birthplace Home National Historic Site in accordance with the laws generally applicable to national historic sites, including the Act entitled "An Act to establish a National Park Service, and for other purposes", approved August 25, 1916 (16 U.S.C. 1–4), and the Act entitled "An Act to provide for the preservation of historic American sites, buildings, objects and antiquities of national significance, and for other purposes", approved August 21, 1935 (16 U.S.C. 461 et seq.).

SEC. 7003. RIVER RAISIN NATIONAL BATTLEFIELD PARK.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—If Monroe County or Wayne County, Michigan, or other willing landowners in either County offer to donate to the United States land relating to the Battles of the River Raisin on January 18 and 22, 1813, or the aftermath of the battles, the Secretary of the Interior (referred to in this section as the "Secretary") shall accept the donated land.

(2) DESIGNATION OF PARK.—On the acquisition of land under paragraph (1) that is of sufficient acreage to permit efficient administration, the Secretary shall designate the acquired land as a unit of the National Park System, to be
IN THE SENATE OF THE UNITED STATES

JULY 23, 2014

Received; read twice and referred to the Committee on Energy and Natural Resources

AN ACT

To adjust the boundaries of Paterson Great Falls National Historical Park to include Hinchliffe Stadium, and for other purposes.

Be it enacted by the Senate and House of Representa-

tives of the United States of America in Congress assembled,
SECTION 1. SHORT TITLE.

This Act may be cited as the “Hinchliffe Stadium Heritage Act”.

SEC. 2. PATERSON GREAT FALLS NATIONAL HISTORICAL PARK BOUNDARY ADJUSTMENT.

Section 7001 of the Omnibus Public Land Management Act of 2009 (16 U.S.C. 410lll) is amended as follows:

(1) In subsection (b)(3)—

(A) by striking “The Park shall” and inserting “(A) The Park shall”;

(B) by redesignating subparagraphs (A) through (G) as clauses (i) through (vii), respectively; and

(C) by adding at the end the following:

“(B) In addition to the lands described in subparagraph (A), the Park shall include the approximately 6 acres of land containing Hinchliffe Stadium and generally depicted as the ‘Boundary Modification Area’ on the map entitled ‘Paterson Great Falls National Historical Park, Proposed Boundary Modification’, numbered T03/120,155, and dated April 2014, which shall be administered as part of the Park in accordance with subsection (c)(1) and section 3 of the Hinchliffe Stadium Heritage Act.”.
(2) In subsection (b)(4), by striking “The Map” and inserting “The Map and the map referred to in paragraph (3)(B)”.

(3) In subsection (c)(4)—

(A) in subparagraph (A), by striking “The Secretary” and inserting “Except as provided in subparagraphs (B) and (C), the Secretary”;

and

(B) by inserting after subparagraph (B) the following:

“(C) HINCHLIFFE STADIUM.—The Secretary may not acquire fee title to Hinchliffe Stadium, but may acquire a preservation easement in Hinchliffe Stadium if the Secretary determines that doing so will facilitate resource protection of the stadium.”.

SEC. 3. ADDITIONAL CONSIDERATIONS FOR HINCHLIFFE STADIUM.

In administering the approximately 6 acres of land containing Hinchliffe Stadium and generally depicted as the “Boundary Modification Area” on the map entitled “Paterson Great Falls National Historical Park, Proposed Boundary Modification”, numbered T03/120,155, and dated April 2014, the Secretary of the Interior—
(1) may not include non-Federal property within the approximately 6 acres of land as part of Paterson Great Falls National Historical Park without the written consent of the owner;

(2) may not acquire by condemnation any land or interests in land within the approximately 6 acres of land; and

(3) shall not construe this Act or the amendments made by this Act to create buffer zones outside the boundaries of the Paterson Great Falls National Historical Park. That activities or uses can be seen, heard or detected from areas within the approximately 6 acres of land added to the Paterson Great Falls National Historical Park by this Act shall not preclude, limit, control, regulate or determine the conduct or management of activities or uses outside of the Paterson Great Falls National Historical Park.

Passed the House of Representatives July 22, 2014.

Attest: KAREN L. HAAS,

Clerk.
Summary of Significant Sources

The most comprehensive secondary source history of the S.U.M., with good coverage of Alexander Hamilton and the financial framework, is found in Joseph Stancliffe Davis, *Essays in the Earlier History of American Corporations, No. I–III* and *No. IV*. The Hunter Research, Inc. *Cultural Resource Investigation of the Allied Textile Printing Site, Paterson NJ* offers more detailed coverage of the industrial workings of the S.U.M. and the involvement of the Colt family. James Lee’s *Paterson Raceways Research and Documentation Report* provides the most detailed description of the S.U.M. raceways and their development, while the University of Pennsylvania School of Design *Great Falls NHL Historic District Resource Inventory & Integrity Evaluation Report* provides the most detailed inventory of cultural resources within the district to date (completed 2017). William Nelson’s Paterson and Passaic County histories and Levi Trumbull’s *History of Industrial Paterson* are excellent contemporary sources of information on the cotton, iron, and other manufactories of Paterson in the late nineteenth century. A good summary history with good coverage of Pierre L’Enfant is found in Russell Fries’ HAER report (LOC).

There are many more studies available, but these appear to be the best in reference specifically to the S.U.M. and associated industries.

Many of the primary sources cited in this report and the above-mentioned studies are now available online at the Library of Congress (digitized Alexander Hamilton Papers), National Archives, *Founders Online* (digitized transcriptions), and in Arthur Harrison Cole, ed., *Industrial and Commercial Correspondence of Alexander Hamilton, Anticipating his Report on Manufactures*. S.U.M. records and collections are housed in the Paterson Museum and Passaic County Historical Society.

Collections


“Documents in the Society for Establishing Useful Manufactures Collection.” Paterson Museum and Passaic County Historical Society, Paterson, NJ.

Primary Sources


Paterson Friends of the Great Falls. “Area around the Paterson Great Falls is designated to be a National Park!” http://patersongreatfalls.org.


Primary Source Compilations

Bibliography


Halstead, George B. Reports of Cases Determined in the Court of Chancery, Volume I. Elizabethtown: Printed by E. Sanderson, 1849.


“Minutes of the Treaty held at Easton.” Woodbridge, New-Jersey: James Parker, Printer to the Government of New-Jersey, 1758, Evans Early American Imprint Collection, https://quod.lib.umich.edu/cgi/t/text/text-idx?c=evans;cc=evans;view=text;idno=N06429.0001.001;rgn=div2;node=N06429.0001.001%3A2.13.


Secondary Sources


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**Online Articles**


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National Listing Documentation


