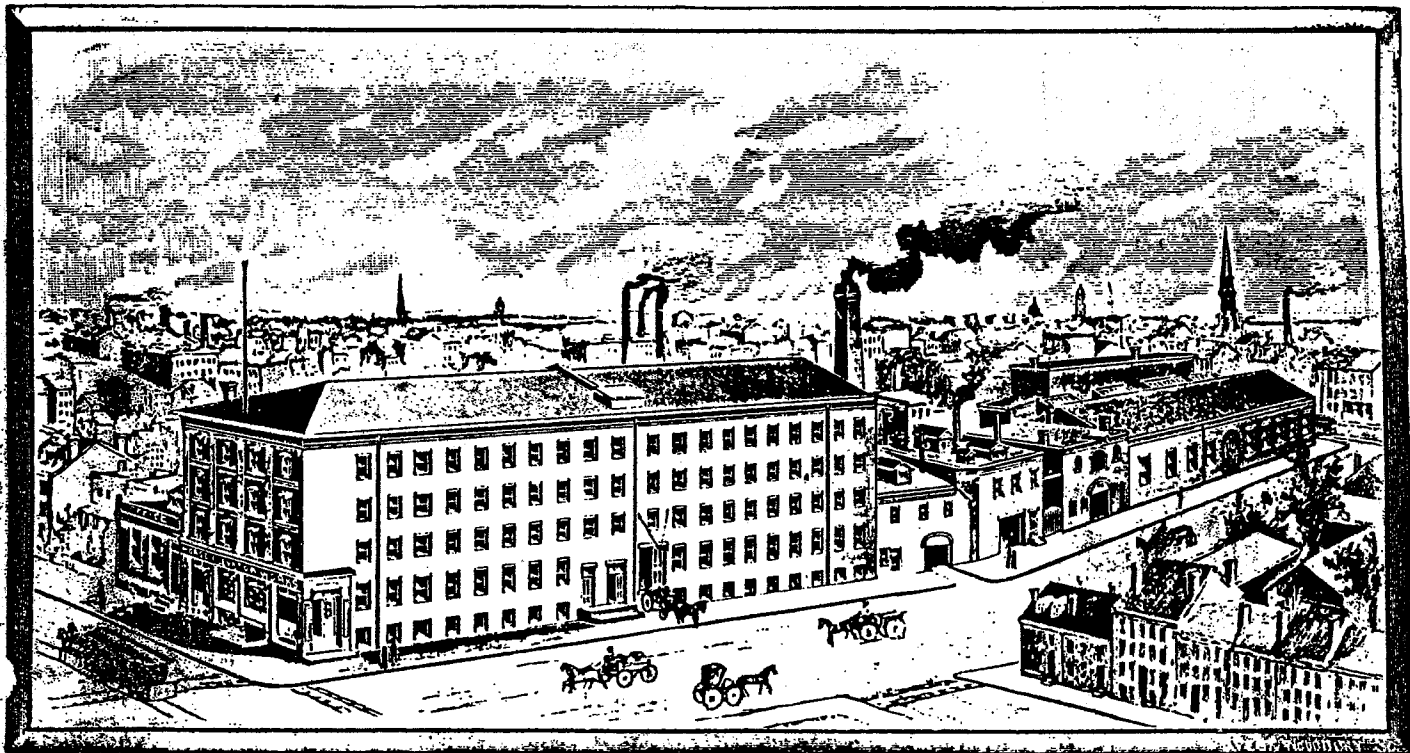


FISHTOWN  
ARCHITECTURAL AND ARCHEOLOGICAL  
INDUSTRIAL SURVEY

Stuart Paul Dixon  
Sara Jane Elk  
Carmen A. Weber

Philadelphia Historical Commission



THE MORSE, WILLIAMS & COMPANY'S ELEVATOR WORKS

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1989



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## INTRODUCTION

A Certified Local Government Grant from the National Park Service administered through the Pennsylvania Bureau for Historic Preservation enabled the staff of the Philadelphia Historical Commission to begin a study of the history and development of industry in Philadelphia. The pilot phase of this city-wide study started with the survey and identification of industrial sites, both architectural and archeological, in the neighborhood of Fishtown.

During the course of this study the survey team received various contributions from people in Fishtown and from local historic and architectural groups. We would like to thank members of the staff of institutions housing collections valuable to our study. They include Jefferson Moak at the Philadelphia City Archives, Kenneth Finkel of the Library Company of Philadelphia, Richard Boardman, Map Department of the Free Library of Philadelphia, Ann Wilcox of the Philadelphia Maritime Museum, Angela Newsome of the University of Pennsylvania's Population Studies Department for allowing access to the Social History Project computer tapes, the librarians of the Eleutherian Mills-Hagley Foundation Library, the National Archives Philadelphia Records Center, and the staff of the Philadelphia Records Department.

We would also like to thank Jack Steelman for sharing his collection of historic photographs and manuscripts on the Philadelphia Electric Company, Frank Sullivan and Harold Spaulding of the American Can Company, and Raymond Wyszynski of the Wyszynski Provision Company. Special thanks goes to the many residents of Fishtown who freely shared their memories of their community, and especially to Colleen McCausland and Edward Wright Jr. of the Fishtown Civic Association for a warm place on a cold day.

Without the Certified Local Government grant the staff of the Historical Commission could not have considered this work. We would like to thank Katherine Stevenson, David Orr, and Tina Van Dyke from the National Park Service for their encouragement on this project, and Greg Ramsey and Bill Sisson of the Bureau for Historic Preservation for their patience.

# THE FISHTOWN ARCHITECTURAL AND ARCHEOLOGICAL INDUSTRIAL RESOURCE SURVEY

## Project Development

The survey and inventory effort conducted and coordinated by the Philadelphia Historical Commission staff since 1955 has identified and protected a great number of buildings endangered by demolition or insensitive treatment, and served to promote the preservation of even more sites by the process of historic designation. Despite this work, the inventory of cultural resources has lacked an essential historic element because of the inadequate representation of one of the most important components of the study of Philadelphia's history, of its industry. The staff acknowledged, in 1987, that the present inventory of historic sites in Philadelphia did not include many industrial resources. Moreover, the earliest industrial sites, now surviving as archeological resources, had not been identified. The lack of this data would continue to inhibit the Commission's responsibility to identify, evaluate, document and preserve of those resources important for the interpretation of Philadelphia's past. This gap could no longer be ignored, particularly since much of the building stock representing the era of the City's industrial leadership had begun to disappear to fire, demolition and neglect.

A Certified Local Government Grant awarded to the Commission by the Bureau for Historic Preservation enabled the staff to begin the a city-wide industrial survey. To consider the history and significance of industrial sites in Philadelphia, we realized the need to develop a methodology for study. We chose Fishtown as the first area to survey, as the history of its built environment nearly parallels that of the City. With an intent systematically to evaluate the industrial history of Philadelphia, Fishtown offered an opportunity to study industrial activity from early settlement through the twentieth century.

Industrial buildings and sites have received little attention in historic resource surveys until very recently, in part because many appear as ordinary buildings and in part because they are complex sites. An industrial resource represents not only a company, but a process, machinery, technological advances, a workplace and workers. In planning for this survey, we searched for compatable efforts, especially examples of urban studies, and could find no models to evaluate for our project. In short, our study would then have to satisfy two criteria: to develop a method to study and record Philadelphia industrial history, and to identify industrial sites in Fishtown. We intended the Fishtown survey to serve as a model from which to continue a city-wide industrial survey.

Commission staff participating in the project team included Sara Jane Elk, project manager, Carmen Weber, Archeologist and Shoureen Jabar, Word Processing Specialist. To conduct the study and to survey the resources, the Commission hired Stuart Paul Dixon as a consulting historian. The project began November 1, 1988.

### Project Timetable

Month 1, November, 1988 - Project commenced. Collection of materials, maps, location of documentary sources and preliminary field work took place. Research and discussions concerning the methods of computer mapping and recordation began.

Month 2, December, 1988 - Identification of probable sites through a search of primary and secondary sources combined with field work revealed the possibility of 150 sites. The staff considered the definition of "industrial" as it relates to industrial activity and historic sites, in an order to begin consideration in individual sites. Discussions began on the development of an inventory of data needed for collection and entry into a database. Investigation of computer hardware and software systems to manage the information continued. The Preliminary Report was compiled and submitted to the Bureau for Historic Preservation.

Month 3, January 1989 - Significant progress occurred toward research, fieldwork and database file formulation. Examination of final version of industrial survey form began. Database structure developed and submitted to the Bureau for Historic Preservation.

Month 4, February 1989 - Intense research began on ten sites selected to represent varied industrial activity in Fishtown and to test the database design. Location of specific documents for each site yielded information on sites not planned in our database design and required adjustments. The survey staff evaluation of information required for the Bureau for Historic Preservation industrial survey form. Discussion centered on the type and amount of data we intended to collect as we continued the effort to plan to study and evaluate urban industrial activity. Selection of the Bureau for Historic Preservation Industrial Resource Survey Form, in lieu of the computerized database exchange discussed earlier constituted the determined method of reporting Fishtown sites to the Bureau for

Historic Preservation. Mr. Dixon participated as a panalist at a state-wide conference of industrial surveys in the Pennsylvania. Greg Ramsey and William Sisson met with the survey team in Philadelphia as a part of the monitoring and evaluation of survey projects.

Month 5, March 1989 - Extensive research and documentation continued on ten Fishtown sites.

Month 6, April 1989 - Draft copies of the ten sites were submitted to the Bureau for Historic Preservation for review and comment and extensive work continued on ten more. Mr. Dixon and Ms. Elk prepared and presented a paper at the Annual Conference on Historic Preservation in Pittsburgh. The survey team determined that the development of a database system for managing information collected in the survey and a method to map sites demanded the consultation of a computer expert, and it has begun to search for an appropriate person or group.

Month 7, May 1989 - Draft copies of five sites, including one district, two multiple use sites and three archeological sites were submitted to the Bureau for Historic Preservation for comment. Data entry and the design of hardware and software was postponed to the end of this project. Additional funding available at that time from the National Park Service will allow the Commission to contract for computer consultant to evaluation equipment and programing appropriate to manage the database created during this study.

Month 8, June, 1989 - Extensive research continued and final site selection for reporting to the Bureau began. Out of 190 resources identified, fifty-five sites containing buildings or probable archeological remains were chosen to represent the industrial activity in Fishtown in the final report to the Bureau for Historic Preservation. The project staff determined that Fishtown met the criteria for listing on the National Register. Eligibility of sites, based on intensive research and on the Fishtown context, was determined.

Month 9, July, 1989 - Extensive research continued on the final sites selection report. Preparation of additional BHP industrial survey forms for the final report began.

Month 10, August - Extensive research continued for



preparation of the survey forms. The project staff coordinated the photography and mapping of the sites and the preparation of the final report.

Work Products submitted to the Bureau of Historic Preservation

Work Product

Date Submitted

Monthly Reports

November	5 December 1988
December	6 January 1989
January	5 February 1989
February	5 March 1989
March	5 April 1989
April	5 May 1989
May	8 June 1989
June	24 August 1989
July	24 August 1989

Preliminary Report

15 December 1989

Survey Form Drafts

Ten  
Five

5 May 1989  
8 June 1989

Data Analysis Report

31 August 1989

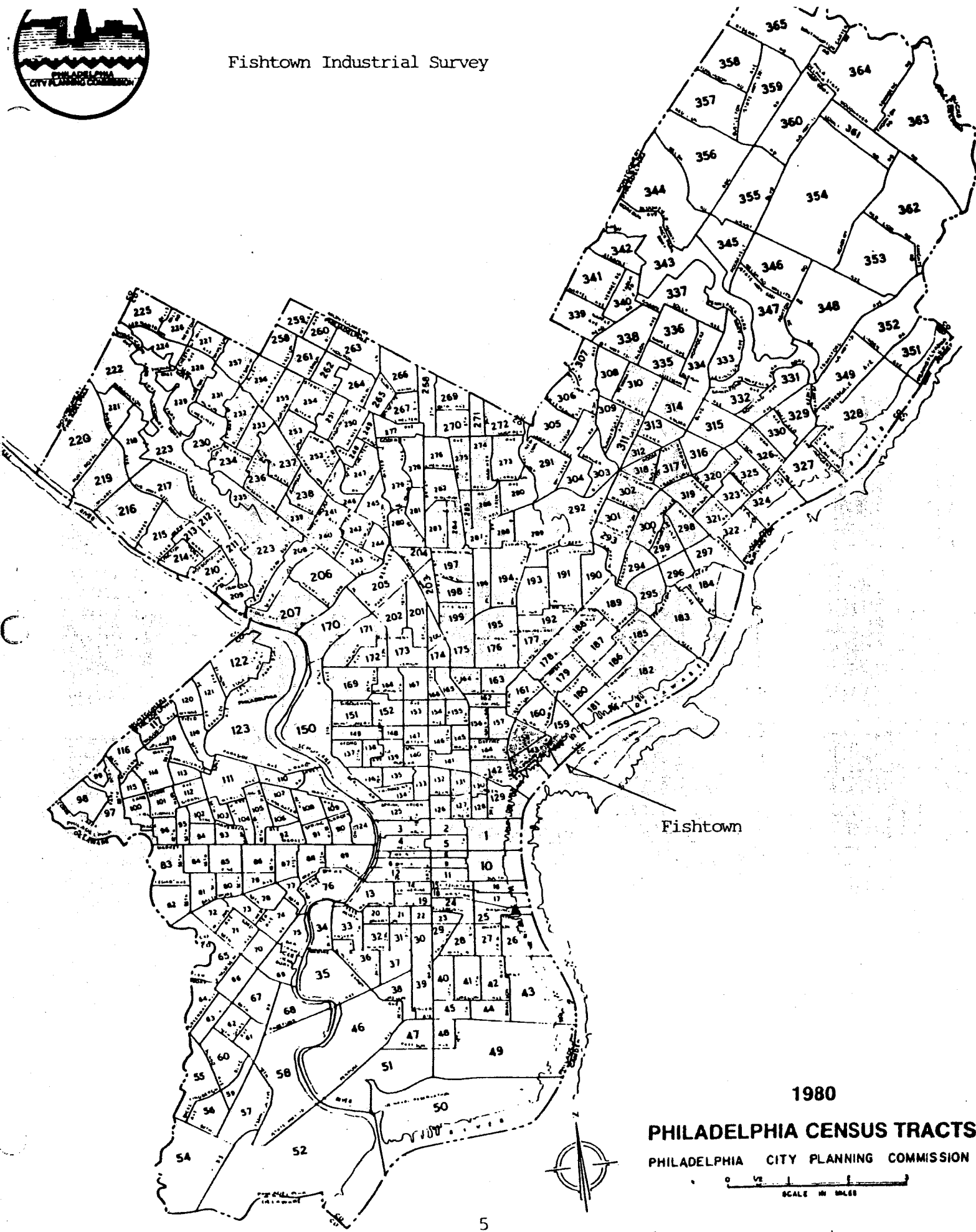
Final Report

31 August 1989

Fifty-five Survey forms  
Photographs and Map



# Fishtown Industrial Survey



1980

PHILADELPHIA CENSUS TRACTS

PHILADELPHIA CITY PLANNING COMMISSION

0 1/2 1 1 1/2 2 2 1/2 3 3 1/2 4 4 1/2 5 5 1/2 6 6 1/2 7 7 1/2 8 8 1/2 9 9 1/2 10 10 1/2 11 11 1/2 12 12 1/2 13 13 1/2 14 14 1/2 15 15 1/2 16 16 1/2 17 17 1/2 18 18 1/2 19 19 1/2 20 20 1/2 21 21 1/2 22 22 1/2 23 23 1/2 24 24 1/2 25 25 1/2 26 26 1/2 27 27 1/2 28 28 1/2 29 29 1/2 30 30 1/2 31 31 1/2 32 32 1/2 33 33 1/2 34 34 1/2 35 35 1/2 36 36 1/2 37 37 1/2 38 38 1/2 39 39 1/2 40 40 1/2 41 41 1/2 42 42 1/2 43 43 1/2 44 44 1/2 45 45 1/2 46 46 1/2 47 47 1/2 48 48 1/2 49 49 1/2 50 50 1/2 51 51 1/2 52 52 1/2 53 53 1/2 54 54 1/2 55 55 1/2 56 56 1/2 57 57 1/2 58 58 1/2 59 59 1/2 60 60 1/2 61 61 1/2 62 62 1/2 63 63 1/2 64 64 1/2 65 65 1/2 66 66 1/2 67 67 1/2 68 68 1/2 69 69 1/2 70 70 1/2 71 71 1/2 72 72 1/2 73 73 1/2 74 74 1/2 75 75 1/2 76 76 1/2 77 77 1/2 78 78 1/2 79 79 1/2 80 80 1/2 81 81 1/2 82 82 1/2 83 83 1/2 84 84 1/2 85 85 1/2 86 86 1/2 87 87 1/2 88 88 1/2 89 89 1/2 90 90 1/2 91 91 1/2 92 92 1/2 93 93 1/2 94 94 1/2 95 95 1/2 96 96 1/2 97 97 1/2 98 98 1/2 99 99 1/2 100 100 1/2 101 101 1/2 102 102 1/2 103 103 1/2 104 104 1/2 105 105 1/2 106 106 1/2 107 107 1/2 108 108 1/2 109 109 1/2 110 110 1/2 111 111 1/2 112 112 1/2 113 113 1/2 114 114 1/2 115 115 1/2 116 116 1/2 117 117 1/2 118 118 1/2 119 119 1/2 120 120 1/2 121 121 1/2 122 122 1/2 123 123 1/2 124 124 1/2 125 125 1/2 126 126 1/2 127 127 1/2 128 128 1/2 129 129 1/2 130 130 1/2 131 131 1/2 132 132 1/2 133 133 1/2 134 134 1/2 135 135 1/2 136 136 1/2 137 137 1/2 138 138 1/2 139 139 1/2 140 140 1/2 141 141 1/2 142 142 1/2 143 143 1/2 144 144 1/2 145 145 1/2 146 146 1/2 147 147 1/2 148 148 1/2 149 149 1/2 150 150 1/2 151 151 1/2 152 152 1/2 153 153 1/2 154 154 1/2 155 155 1/2 156 156 1/2 157 157 1/2 158 158 1/2 159 159 1/2 160 160 1/2 161 161 1/2 162 162 1/2 163 163 1/2 164 164 1/2 165 165 1/2 166 166 1/2 167 167 1/2 168 168 1/2 169 169 1/2 170 170 1/2 171 171 1/2 172 172 1/2 173 173 1/2 174 174 1/2 175 175 1/2 176 176 1/2 177 177 1/2 178 178 1/2 179 179 1/2 180 180 1/2 181 181 1/2 182 182 1/2 183 183 1/2 184 184 1/2 185 185 1/2 186 186 1/2 187 187 1/2 188 188 1/2 189 189 1/2 190 190 1/2 191 191 1/2 192 192 1/2 193 193 1/2 194 194 1/2 195 195 1/2 196 196 1/2 197 197 1/2 198 198 1/2 199 199 1/2 200 200 1/2 201 201 1/2 202 202 1/2 203 203 1/2 204 204 1/2 205 205 1/2 206 206 1/2 207 207 1/2 208 208 1/2 209 209 1/2 210 210 1/2 211 211 1/2 212 212 1/2 213 213 1/2 214 214 1/2 215 215 1/2 216 216 1/2 217 217 1/2 218 218 1/2 219 219 1/2 220 220 1/2 221 221 1/2 222 222 1/2 223 223 1/2 224 224 1/2 225 225 1/2 226 226 1/2 227 227 1/2 228 228 1/2 229 229 1/2 230 230 1/2 231 231 1/2 232 232 1/2 233 233 1/2 234 234 1/2 235 235 1/2 236 236 1/2 237 237 1/2 238 238 1/2 239 239 1/2 240 240 1/2 241 241 1/2 242 242 1/2 243 243 1/2 244 244 1/2 245 245 1/2 246 246 1/2 247 247 1/2 248 248 1/2 249 249 1/2 250 250 1/2 251 251 1/2 252 252 1/2 253 253 1/2 254 254 1/2 255 255 1/2 256 256 1/2 257 257 1/2 258 258 1/2 259 259 1/2 260 260 1/2 261 261 1/2 262 262 1/2 263 263 1/2 264 264 1/2 265 265 1/2 266 266 1/2 267 267 1/2 268 268 1/2 269 269 1/2 270 270 1/2 271 271 1/2 272 272 1/2 273 273 1/2 274 274 1/2 275 275 1/2 276 276 1/2 277 277 1/2 278 278 1/2 279 279 1/2 280 280 1/2 281 281 1/2 282 282 1/2 283 283 1/2 284 284 1/2 285 285 1/2 286 286 1/2 287 287 1/2 288 288 1/2 289 289 1/2 290 290 1/2 291 291 1/2 292 292 1/2 293 293 1/2 294 294 1/2 295 295 1/2 296 296 1/2 297 297 1/2 298 298 1/2 299 299 1/2 300 300 1/2 301 301 1/2 302 302 1/2 303 303 1/2 304 304 1/2 305 305 1/2 306 306 1/2 307 307 1/2 308 308 1/2 309 309 1/2 310 310 1/2 311 311 1/2 312 312 1/2 313 313 1/2 314 314 1/2 315 315 1/2 316 316 1/2 317 317 1/2 318 318 1/2 319 319 1/2 320 320 1/2 321 321 1/2 322 322 1/2 323 323 1/2 324 324 1/2 325 325 1/2 326 326 1/2 327 327 1/2 328 328 1/2 329 329 1/2 330 330 1/2 331 331 1/2 332 332 1/2 333 333 1/2 334 334 1/2 335 335 1/2 336 336 1/2 337 337 1/2 338 338 1/2 339 339 1/2 340 340 1/2 341 341 1/2 342 342 1/2 343 343 1/2 344 344 1/2 345 345 1/2 346 346 1/2 347 347 1/2 348 348 1/2 349 349 1/2 350 350 1/2 351 351 1/2 352 352 1/2 353 353 1/2 354 354 1/2 355 355 1/2 356 356 1/2 357 357 1/2 358 358 1/2 359 359 1/2 360 360 1/2 361 361 1/2 362 362 1/2 363 363 1/2 364 364 1/2 365 365 1/2

### Square Miles Surveyed

The Fishtown neighborhood actually surveyed includes 115 city blocks covering 350 acres and .55 square miles.

### Number of Completed Survey Forms

Fifty-one Pennsylvania Industrial Resource Survey Forms and four Pennsylvania Archeological Site Survey forms were completed for the Fishtown Industrial Survey.

### Fishtown Industrial Survey Methodology

#### Project Design

When considering a city-wide survey of Philadelphia industrial resources, the project staff intended to develop and test a methodology for an ongoing study. Prior to the start of work, the staff acknowledged that the study must unravel and interpret a complicated industrial past. The City of Philadelphia had grown from a colonial port clustered near the Delaware River into a major American industrial center, at one time boasting a reputation as the "workshop of the world." In contrast to other industrial cities, Philadelphia's industry was varied and specialized, and consisted of hundreds of establishments scattered throughout its neighborhoods. To attempt to analyze its industrial resources, we needed to identify specific sites, collect data on each, and interpret the information. The result of this effort would evolve into a historic context from which to evaluate the historical significance of each identified resource.

From a cursory study of Fishtown, we found its built environment nearly parallels that of the City. A wedge shaped neighborhood located along the Delaware river, it had evolved from an early 17th century settlement tied to waterfront activity to a community with a rich and varied industrial past. It stood as a microcosm of Philadelphia's past and would serve as the model to test the study methodology.

In defining a framework for conducting the project, we determined that in order to construct an adequate historical context, we had to study Philadelphia's industrial past from the earliest recorded activity to present industrial endeavors. We then evaluated two basic questions: 1) what is "industrial" and 2) what constitutes an industrial site? After considerable discussion, we adopted the National Register definition of industrial as "the technology and process of managing materials, labor and equipment to produce

goods and services." For the Fishtown survey, we resolved to record all sites that contained some form of industrial activity and to investigate and collect information about each.

### Specific Site Identification and Interpretation

To accomplish site identification within the boundaries of Fishtown, we located and researched primary and secondary materials and compared probable resources to the physical environment. This discovery process also involved a reverse process of field identification verified by documents, as neither method alone could lead to the identification of all sites. Although this methodology does not differ from standard historic sites surveys, the project team found that some industrial sites in Fishtown, such as handloom shops, bakeries and small one room manufacturies, gave no clue to their industrial past through their physical appearance, and only appeared in the gleening of many primary and secondary sources.

As the study progressed, extensive documentary research demanded more field interpretation and verification. For example, Lorin Blodget, in The Textile Industries of Philadelphia, identified hand-loom manufacturers operating from one to fifty looms employing up to fifty workers. The hand-loom houses were described as two to four stories in height with dimensions of roughly 15' x 30' to 15' x 60. Upon field examination, we found the surviving sites contained residential buildings, often with rear buildings or rear elis. The dwellings provided both workplace and home to handloom operator. Although the specific location of the industrial activity within the site could not always be determined and would require more physical investigation, the survey team identified the sites both residential and industrial. Bakeries posed the same problem. All four bakeries identified in our survey are three-story corner buildings with commercial ground floors and residential floors above. Nothing about the physical characteristics or fabric of these structures gave a clue to past or present industrial use.

For archeological sites, the methodology varied. Evaluation of archeological potential occurred when historical research identified an industrial property and a field visit indicated the existence of a vacant lot. First, the archeologist conducted a field inspection to determine the extent of disturbance created by later construction or other activities. Predictions regarding site potential focused on the examination of topographic features, such as the present ground surface. For example, visual inspection often indicated cutting down or stripping of the ground surface, or

ground slumping caused by the presence of basements and/or redevelopment of a site then resulted in new landscape configuration. These situations indicated low site potential. If a lot contained little or no evidence of surface disturbance, its potential for revealing archeological remains was considered high.

When field inspection indicated a high site potential, historical data was analyzed to determine the impact of later development on possible remains. For example, a high potential for an industrial archeological site would exist in a situation where a catastrophic event, such as a fire or flood, destroyed structures and extensive rebuilding did not occur. Continuity in a property's use through time would create another favorable situation for site preservation. A chronology of the site's use, based on information provided by maps and other historical documents, provided a method of evaluating the sites' continuity. In addition, maps illustrated site development through time. If a site, now vacant, held a large building with a basement for most of the twentieth century, its potential value decreased. However, if historic documents indicated little redevelopment and the site now sits vacant with open areas, the possibility for site preservation increases.

Particular importance was placed on industrial sites dating to the eighteenth and early nineteenth centuries, for they represent the transition from craft trades to industrial factory development. Archeological remains at such sites may be significant for they are likely to illustrate these transitional and experimental technologies. Each of these sites required consideration, as the technology for differing industries developed at different rates. As in the evaluation of the built environment, these sites can contain information not recorded in the historic record.

### Research Methodology

In order to conduct an extensive study of each site, the project staff began the development of a bibliography of references appropriate for a city-wide study. Because specific information for each industrial site can be difficult to find, the location of useful sources became necessary.

Initially each industrial resource was identified by historic maps or atlases, industrial censuses, secondary sources (such as Kensington, A City Within a City, or History of Philadelphia, 1609-1884, by Scharf and Westcott) or through field work. As the study progressed, we continued to build a list of additional sources and used them to document and interpret the historical activity of individual sites. The bibliography submitted as a part of the Data Analysis Report

of this survey includes the complete list compiled to date. In addition, each site selected for the Bureau for Historic Preservation documentation was verified by public record, primarily a chain of title, to insure proper identification of location.

To discover the products, number of workers, type of machinery, and processes involved, and the like, archives were searched to find more obscure references. Such sources as the Hexamer General Surveys, specific to industrial sites, provided a wealth of information. Each plate of its many volume includes an axonometric rendering for a particular company's site that illustrates the placement of all of its structures and the arrangements within each. The accompanying text includes descriptions of products, number of workers employed, raw materials used, machinery in use, building age and names of owners. Some sites were resurveyed because of alteration in the building configuration or a change in ownership. The staff also consulted histories written on specific industrial processes or about particular companies as well as collections of trade catalogues and business papers, and a variety of Philadelphia guide books and who's whos for additional information on sites. The bibliography reflects these documents as well.

#### Documentation of Industrial Resources

The complexity of industrial sites, the quantity of resources within an urban area the size of Philadelphia, and the time span of our study demanded that we evaluate a method to store the potential volume of information collected during a city-wide survey. We intended to design and utilize a database system with a mapping component to store, manage and allow for manipulation. This effort would assist in the creation of the historic context.

In planning for its design, we wrestled with the problem of linking businesses to sites, for we found through the Fishtown pilot study that industrial concerns exhibited more mobility than anticipated. Single industrial buildings often housed more than one business, some as tenant and some as owner. This discovery required that we find a way of tracking the movement of each concern. For example, after the Morse Elevator Company purchased the Martin Landenberger Hosiery Mill, it leased space to two tenants, one of whom was A. J. Reach, a sporting goods manufacturer. In addition, he occupied floor space at 1223 Beach Street (now demolished). After several years in these facilities, Reach purchased his own building and later expanded it into a large complex of buildings. When evaluating his business within the context of similar concerns, Reach's activities, products, number of workers, processes, machinery, and the like, during the first

years of his business become important and required documentation. We also intended to reflect in a usable way, the span of time in which a specific company operated. Without such information, we could not establish numbers and locations of particular industrial activities.

The Fishtown pilot study has provided a significant beginning for this effort. Mid-way through the study, and after consulting a variety of individuals and institutions on database management systems and mapping programs, we established a preliminary design. Without the expertise of a programmer familiar with our hardware and software needs, we could advance no further. An additional grant from the National Park Service through the Bureau for Historic Preservation will allow us to complete the planning and determine our equipment needs. The Fishtown data will test its design.

To meet our contractual agreement with the Bureau for Historic Preservation, we have documented fifty industrial sites within the boundaries of Fishtown on either Pennsylvania Industrial Survey Forms or Pennsylvania Archeological Site Survey forms for the files of both the Pennsylvania Historical and Museum Commission and the Philadelphia Historical Commission. Each site received a survey code. A base map was prepared with the site location marked and coded. All industrial sites were photographed and the photographs identified by site name, address and survey code. A log catalogues the photo negatives.

#### Determination of Eligibility

In our opinion, the development of a historical context for industrial activity within the City of Philadelphia constitutes a primary goal in conducting a city-wide study of industrial sites. Without it, we lack the information to judge accurately the eligibility of sites for the National Register of Historic Places and for the Philadelphia Register of Historic Places. Indeed, some industrial resources from our model survey, such as A. J. Reach & Company Sporting Company Goods, clearly meet the criteria for listing. Reach established a national reputation for its products. Others sites, such as Holmes Lantern and John Stevens Elevator Parts, are more difficult to assess. Within the context of Fishtown as an historic district, each contributes as an industrial activity which proved vital to the economic welfare of the neighborhood. However, evaluated within the sphere of Philadelphia industry, no context has been established for lantern manufacturers or elevator part fabricators. Continuation of the study and recordation of Philadelphia industry will help to develop such a context.

Through the analysis of industrial activity in Fishtown and field work within the neighborhood, we have determined that Fishtown meets the criteria for listing on the National Register as an historic district. We have only studied the industrial sites; however, the community retains significant resources which reflect the character of a cohesive mixed residential, commercial and industrial neighborhood. Following the pattern described in Hershberg's Philadelphia: Work, Space, Family and Group Experience in the 19th Century, this neighborhood provided dwellings, workplaces, services, and facilities for worship, education and social meetings. Although the widening of Delaware Avenue and the construction of Interstate 95 destroyed a number of eighteenth and early nineteenth century industrial sites, the built environment still reflects early nineteenth century settlement and activity. Based on our judgment of eligibility, we analyzed the industrial sites for two criteria: 1) as individually eligible to the National Register or 2) as contributing to the Fishtown Historic District.

Archeological sites were assessed differently. The historical documentation recorded on the Pennsylvania Archaeological Site Survey forms serves as measure of site potential. Field testing of these sites, beyond the scope of the current project, should occur before determining National Register eligibility. Test excavations would verify the existence of significant archeological resources and establish the boundaries of identified sites.

Commentary of Bureau for Historic Preservation Guidelines, Policies, and Procedures

The staff of the Philadelphia industrial survey project began the study of Fishtown industrial sites not only to identify and evaluate cultural resources in this category in Fishtown, but also to develop and test a methodology for the study of urban industrial activity over a three hundred year period. Our investigation of industrial surveys indicated that no other municipality had undertaken such an effort. Because our approach was intended to be experimental, we sought a degree of flexibility in method and form.

The standard methodology used in Pennsylvania for identifying historic resources works well within a framework of a city or town considered as a whole. We found, however, that our obligation to draw immediate conclusions on the eligibility for the National Register of sites inhibited our larger objective of researching and interpreting the built environment and landscape as an historic gestalt. Indeed, the study and analysis of Fishtown alone could not yield a fully reliable context for industrial sites for the rest of the city; conversely, without more data for the entire city and



its industrial history, the contexts and conclusions drawn for Fishtown would remain questionable. The first year survey, focused on Fishtown, could only begin the process. At the same time, we understand the Bureau's need for finding of eligibility as a part of its federally mandated survey procedures. The differences in objectives, assumptions and perspectives led to some misunderstanding between the staffs of the Bureau and the project team.

The experience of the Fishtown historic sites survey suggests the need for close and frequent communications between the Bureau and a local survey contractor, particularly for large, complex metropolitan areas. We should have read, questioned and refined more closely the Bureau's expectations and standards. Similarly, the project would have benefitted from more timely responses to our submissions. For example, not until May, seven months into a ten-month study, did we receive a letter expressing serious reservations about our work. This occurred after a February meeting between the Bureau staff and the project team and the transmittal of six monthly reports. In like manner, we had neglected to include the "Monthly Survey Status Report Form" with our monthly progress reports. Not until May was this brought to our attention.

In summary, we should like to urge more frequent contact between the Bureau and local survey contractors to assure a fuller understanding of both of the mutual objectives, including methodology and work product, for a particular survey. This assumes even greater importance in a projected phased study of a complex history and area. Indeed, if scheduling and deadlines permit, the assumptions, methods and concrete goals should be defined before the execution of a contract.

During the survey, the project team experienced difficulties in using the Bureau for Historic Preservation's Industrial Resource Survey Form. We think that further discussions regarding the use of this form would benefit both the Bureau and the Commission.

#### Benefit of the Survey to the Locality

The location and identification of industrial resources in Fishtown began an effort to develop a historic context of Philadelphia industrial resources. It also provided a model from which to develop and test survey methodology for a continuing study of Philadelphia's industrial past. The results of the Fishtown survey and the continuing effort to survey other areas will aid the staff of the Historical Commission in evaluating industrial sites for designation and

preservation.

The extensive survey of sites in Fishtown revealed fourteen sites individually eligible for the National Register. We also found that Fishtown itself meets the criteria for listing on the National Register as a historic district. Should the Bureau and the Department of Interior concur in these findings, the results of the survey will give protection to the fourteen resources as provided by federal statutes and regulations.

Name, Address and Phone Number of Local Repository for Survey Data

Philadelphia Historical Commission  
1313 City Hall Annex  
Philadelphia, PA 19107  
(215) 686-4543

## THE INDUSTRY OF FISHTOWN: A HISTORICAL CONTEXT

### Introduction

The study of industrial resources in Fishtown undertaken by the Philadelphia Historical Commission during the first phase of the Philadelphia Industrial Study offered more than a glimpse at the history of the American urban experience. From the examination of historical materials and the interpretation of the cultural landscape, the project staff gathered a body of information on the growth and development of industrial activity in Fishtown. Not only did this work allow for the interpretation of Fishtown, it began the effort of unraveling the complex history of Philadelphia's industrial past.

Fishtown was chosen as the pilot study area because of its mixed residential, commercial and industrial character, and because it has evolved from an eighteenth century waterfront village to a dense, urban neighborhood within Philadelphia. In order to evaluate the industrial history of Fishtown, an attempt was made to identify all sites containing industrial activity, beginning with the earliest record of European settlement and ending with the present. As the study progressed, the character of Fishtown's industrial past began to unfold.

### Early Colonization to circa 1730

Though the Fishtown neighborhood of Philadelphia experienced some European colonization prior to William Penn's arrival in 1682, extensive industrial development did not occur until after the evolution of effective steam power and intensive settlement. Since that time Fishtown has evolved into a coherent working-class neighborhood bounded by Frankford Avenue on the west, Norris Street on the northeast, and the Delaware River to the south and east.

Situated on Pennsylvania's coastal plain along the Delaware River, Fishtown, known to colonists as Shackamaxon, was a hospitable region for early Swedish and Finnish colonization.<sup>(1)</sup> Two creeks, the Cohocksink and the Tumanaramaning, defined a wide sandy beach area rising to gently sloping land. The courses of these two creeks, currently Canal Street and Aramingo Avenue, approximate the western and northeastern boundaries of Fishtown. Along the

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<sup>1</sup> The name Shackamaxon may have come from the word "schackamesink", a Native American word for "place of eels."

river above the what would develop to the colonial port of Philadelphia, early settlement patterns were sparse and non-nucleated. When William Penn arrived in 1682, the land encompassing all of modern Fishtown belonged to Thomas Fairman and his wife Elizabeth. Elizabeth Fairman had purchased the land from Lasse Cock before her marriage to Fairman in 1678.(2) Penn resided with the Fairmans during the winter of 1682-83 while Fairman surveyed Penn's landholdings.(3) According to legend, he signed a treaty with Native Americans in 1682 under an elm tree on the Fairman plantation in Shackamaxon.(4) One of the earliest records of industrial activity in Fishtown occurs in the deed transactions of the Fairman land. When Benjamin Fairman acquired title to the seat from his parents, he acquired one-half interest in the Fairman cider works.

Although some marine-related activities, such as fishing, took place in the early 1700s, a primarily agrarian culture existed during the period of earliest colonization. It was not until the 1730s that the Fishtown waterfront witnessed significant development and building activity.

#### From Shackamaxon to Kensington, circa 1730 to 1780

In 1730 Anthony Palmer began to lay out town lots on land he purchased from Robert Worthington, Innholder, and his wife Mary.(5) The Worthington land had come from Thoman Fairman and included much of modern Fishtown east of East Columbia Avenue. Palmer established the district as Kensington, named after the borough of London from which he had come. Between the boundaries of two early routes, the Frankford Road to New York and Point-No-Point Road (now Richmond Street), a grid system of roads and lots, including a cemetery, were surveyed.

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2 For an excellent description of early land transactions see Hannah Benner Roach, "The Planting of Philadelphia, A Seventeenth-Century Real Estate Development," The Pennsylvania Magazine of History and Biography XCII (January & April, 1968): 3-47, 143-194.

3 Ibid, 32.

4 No written documents verify this treaty, however, Penn Treaty Park exists today as a monument to the legend.

5 Palmer, an affluent West Indies merchant purchased small parcels in Shackamaxon in 1704 before settling in Philadelphia in 1708. One of the more influential of the its citizenry, Palmer served as acting president of the Provincial Council and as lieutenant governor of Pennsylvania.

By 1749 there were 62 houses in the northern suburbs of Philadelphia, which included Spring Garden, the Northern Liberties, and Kensington.(6) Palmer Cemetery, one block from Frankford Avenue at Columbia Avenue, and Palmer Street remain in Fishtown as part of his legacy.

North of Columbia Avenue along the Delaware, Palmer sold waterfront lots to owners of shipbuilding and repair facilities. Inflation in land values squeezed them out of the waterfront properties nearer the city (7) and sent them north, where they easily found accessible land in newly developing Kensington. Charles West acquired a large parcel at the foot of Palmer and Cherry Streets (Montgomery Avenue) where he continued the shipbuilding tradition begun by his father in 1676 in the Northern Liberties. James Parrick, another early shipbuilder, also purchased land along Kensington's riverfront.

The shipbuilding trades at that time entailed not only new construction but two types of ship repair: careening, which involved beaching the vessel, or "heaving down" a vessel still in the water. John James Barralet's view of "Philadelphia from Kensington," an 1796 painting, depicts a ship heaved down while workman repair its hull. A series of color plates printed by William and Thomas Birch between 1798 and 1800 includes "The City & Port of Philadelphia, on the River Delaware from Kensington." Their painting depicts heaving down and other shipbuilding activities along Fishtown's waterfront similar to the Barralet view.(8) Although these illustrations document waterfront activities were executed in later years, the methods and technologies in use reflect an earlier period. Another trade along the wharves involved the construction of large "raft ships" constructed to carry huge amounts of timber and designed to be broken up at their destination. Shortly before the American Revolution, Kensington witnessed the last of these rafts built in Philadelphia.(9)

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6 Quoted in James Robinson, The Philadelphia Directory, For 1807 (Philadelphia: T. S. Manning, 1807), vi.

7 J. Leander Bishop, A History of American Manufactures from 1608 to 1860 (Philadelphia: Edward Young & Co., 1864), 70.

8 Black and white reproduction and description of Barralet's watercolor found in Martin P. Snyder, City of Independence, Views of Philadelphia before 1800 (New York: Praeger Publishers, 1975), 197-8; color print of Birch's view on page 197 with description pages 224-226.

9 Bishop, 72.

Waterfront Settlement and Early Industrialization,  
circa 1780 to 1830

The activity of marine-related trades along Fishtown's waterfront increased. The shipbuilding trades relied heavily on the associated marine activities developing in the locality for supplies and workers. Rope walks and lumber yards provided a vital link to ship building. A 1796 map shows a rope walk fronting on Queen Street (Richmond Street) between Frankford Road and Shackamaxon Street (10 ) while early nineteenth century maps reveal two walks west of Frankford Road and north of Otter Street (Wilkey Street).(11) Actually outside of Fishtown, these establishments nonetheless had an impact upon Fishtown's shipbuilding activities and illustrate the integration of marine industries.

The availability of skilled tradesmen, such as shipwrights and carpenters, was equally important. Data gleaned for Fishtown addresses from the Kensington of an 1807 Philadelphia city directory revealed the occupations for 181 residents. Of that total 78 were involved directly in shipbuilding or related trades, including 59 shipwrights, ship joiners, and ship carpenters. Also listed were seven rope makers, one ship smith, five shipbuilders, three mast makers, seven caulkers, and three wharf builders, as well as seventeen carpenters, fourteen fishermen, and thirteen blacksmiths.(12)

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10 John Hills, "Plan of the City of Philadelphia and its Environs [1796]" (Philadelphia: Samuel L. Smedley, 1881).

11 John A. Paxton, "Philadelphia ... Plan of the City and Its Environs" (Philadelphia: William Strickland, 1811); William Allen, "Plan of the City of Philadelphia" (Philadelphia: H. S. Tanner, 1828); F. Drayton, "Plan of the City of Philadelphia" (Philadelphia: F. L. Carey & A. Hart, 1830). The 1811 map identifies the walks as "Davis" and "Taylors," presumably the names of the owners. In the 1828 and 1830 maps, these same walks are noted as "Kerr" and "Dunton." A third rope walk, belonging to "Norris" and running parallel to Germantown Avenue between Thompson Street and Van Horn Street west of Fishtown, appears on all three maps. A fourth rope walk labeled "Nuskeys", sited similarly to the walk in Hill's map of 1797, appears on the Drayton map.

12 Robinson, 1-20. Although Robinson listed Kensington and "The City West Of Broad Street" together, careful examination of street names and addresses revealed occupational figures.

Settlement of the surrounding region grew as well. Although the small scale of a 1777 map of Philadelphia does not reveal the presence of wharves or waterfront activity in Fishtown, it shows that dense settlement existed primarily along Point-No-Point Road (Richmond Street).(13) By 1796, eight wharves had been erected. Scattered settlement, still concentrated on major thoroughfares such as Crown Street (Richmond Street), Frankford Road, and Shackamaxon Street, had spread into the northern sections of Fishtown.(14) An 1811 map shows seventeen wharves and three ferry landings.(15) Nineteen wharves, shipyards, and mastyards, and one public landing and ferry, border the riverfront on an 1828 map. It also indicates occupation of most of the blocks in the western and southern sections of Fishtown, while the northeastern area shows very little building activity.(16) An 1843 map displays the words "shipyards" across the entire Fishtown waterfront as well as two public ferries and one glassworks; however, dense settlement still had not reached much beyond than the western two-thirds of Fishtown.(17) By 1840, 9,388 people resided in the 4th and 5th wards of Kensington, an area encompassing most of Fishtown.(18)

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13 Matthew Albert Lotter, "A Plan of the City and Environs of Philadelphia" (1777); as found in Snyder, 68, 99-101.

14 P. C. Varle, "To the Citizens of Philadelphia this Plan of the City..." (Philadelphia: 1796).

15 Paxton.

16 Allen.

17 Charles Ellet Jr., "A Map of the County of Philadelphia" (Philadelphia: Charles Ellet Jr., 1843).

18 John Daly and Allan Weinberg, Genealogy of Philadelphia County Subdivisions (Philadelphia: City of Philadelphia Department of Records, 1966), 96. The 4th and 5th wards describe an area bounded by Shackamaxon Street, East Girard Avenue, North Front Street, West Montgomery Avenue, North Sixth Street, West and East Norris Streets, and the Delaware River.

John Adams Paxton gives a glimpse of the physical character of Kensington in his 1811 guide for a map of the city and suburbs of Philadelphia: (19)

Kensington contains eight hundred and sixty-nine Buildings, of which fifty-two are New.

	Brick	Frame	Total
Dwelling Houses	184	431	615
Store Houses	1	8	9
Manufacturing Buildings	5	5	10
Public Buildings	2	3	5
Stables, Work shops &c.	76	324	400
<hr/>			
Total	307	629	935

Non marine-related manufacturing starting in the late eighteenth century. In October 1771, Robert Towars and Joseph Leacock purchased land on the eastern bank of Gunner's Run along Bank Street (Richmond Street) and erected a glasshouse, furnace, and other improvements. One year later druggists John and Samuel Elliot bought the glasshouse and expanded the facility to include an additional glass furnace. Tobacconist Thomas Leiper acquired the property in 1780 and manufactured snuff bottles. A decade later, Butland & Co., composed of Joseph Roberts, James Butland, and James Rowland, purchased the property. Roberts left the firm soon after the glass furnaces were acquired and Butland then sold his interest in the newly named Kensington Glassworks to Rowland in 1804.

Thomas W. Dyott, a patent medicine manufacturer and the glasswork's most colorful owner, expanded the operation greatly. Dyott had tenanted at the glass factory prior to purchasing it from James Rowland, Jr., in 1833. During Dyott's occupation, the glass factory manufactured vials, medicine bottles, demi-johns, and decorative flasks. Calling the area of and around the factory Dyottville, he established a "moral" community of nearly 500 employees and apprentices where gambling, alcohol, and swearing were prohibited. Fifty brick dwellings were rented to employees. A carpenter shop, a blacksmith shop, a bakery, and a firehouse were maintained on

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19 John Adams Paxton, An Alphabetic List of all the Wards, Streets, Roads, Lanes, Alleys, Avenues, Courts, Wharves, Ship Yards, Public Buildings, &c. in the City and Suburbs of Philadelphia, with References for finding their Situations on an Alphabetical Plan (Philadelphia: Wm. Strickland, 1811), p. 19.



the property. A new chapel gave ministers a venue for the religious instruction of employees, and approximately two hundred apprentices received secular educations on weekday evenings and Sunday afternoons in a new school. Dyott also established a temperance society, a library, prayer meetings, and singing lessons. Adjoining property totaling nearly four hundred acres supplied the community with vegetables, milk, and butter, and grazing land for forty cows.

Dyott's involvement in the Manual Labor Bank, a savings institution created by him for his employees, eventually led to his ruin. The bank proved insolvent during the national financial crisis of 1837 and Dyott served nearly three years in prison as a result. Henry B. Benners operated the glass factory, still known as the Dyottville Glass Works, from 1844 until the early twentieth century. Benners manufactured carboys, wine and porter, mineral water bottles and flasks.(20)

In 1779 John Hewson established a calico and linen printing factory on land neighboring the glass house at Gunner's Run and Bank Street (Richmond Street). The previous year Hewson had petitioned the Pennsylvania Society for the Encouragement of Manufactures and Useful Arts, a revolutionary era association promoting industrial independence, for assistance in his endeavor to start the factory. Hewson manufactured gowns and blue handkerchiefs with white spots. In 1789 he had succeeded in acquiring a 200 pound loan from the Society for the enlargement of his facilities and was named as its calico-printer. The 1807 directory lists John "Heuson" Sr., John Jr., and two other "Heusons" as calico-printers in Kensington on Queen Street. John Sr. retired the next year and left John Jr. in charge of the calico, shawl, pocket-handkerchief, and bedspread manufacturing business.(21)

John Gamble established another early industry in Fishtown. In 1818 Gamble started tanning sheep-skins near the Fishtown waterfront. The historians Scharf and Westcott incorrectly state that his tannery was located at the "High Bridge, over Conshohocken Creek" at the corner of Frankford and Laurel Streets. Scharf and Westcott actually refer to the bridge over the Cohocksink Creek near the intersection of Frankford and Laurel in Fishtown. The following year saw

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20 Thomas J. Scharf and Thompson Westcott, History of Philadelphia 1609-1884 (Philadelphia: L. H. Everts & Co. 1884), 2298-2299; Helene Weis, "Apprentices Wanted," Stained Glass (Winter 1971/72), 16-21.

21 Scharf and Westcott, 2228-2229, 2310, 2316; Robinson, 8.

Gamble manufacturing goat morocco at this site.(22)

### Industrial Expansion and Diversification, circa 1830 to 1870

During the 1830s and 1840s Fishtown witnessed the growing diversification of its industries. Prior to that period the majority of manufacturing sites in the urban setting consisted of small craft shops. Most trades, such as cooper, plasterer, blacksmith, victualler, stone mason, whitesmith or silversmith, cabinet maker, wheel wright, and the like, took place either in ground floor shops or rear sheds. Although some large scale manufactories, such as Hewson's calico printing factory and the Kensington Glassworks, began in the late 1770s most early industrial manufactures of this magnitude operating in Fishtown date to the 1830s, a period when the expanding utilization of steam power changed America's urban spaces and economy.(23)

While new industrial activities began to arrive, marine related trades persisted during this period and probably gave rise to the name Fishtown to describe the Kensington waterfront neighborhood. Fisherman "took up their nets" fishing for shad, smokehouses dotted the area and fresh fish were available in the open-air markets on Girard Avenue. Legend has it that Charles Dickens visited Kensington during his travels in 1834 to compare it with the London borough and called it Fishtown because of the smell.<sup>24</sup>

Census records of both manufacturing and population help reveal the changing nature of Fishtown's industry and community during this period of early industrialization. The manufacturing records for 1840 treat Fishtown as a part of a larger Kensington. Although this makes detailed comparison with earlier data difficult, some trends do emerge. The 1840 industrial census counted forty-seven factories in Kensington including ten shipyards, nine cotton and woolen mills, eight glass houses, six iron foundries and machine shops, six saw

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22 Scharf and Westcott, 2287.

23 An excellent discussion of the rise of steam power in urban areas can be found in Brooke Hindle and Steven Lubar, Engines of Change, The American Industrial Revolution 1790-1860 (Washington, D. C.: Smithsonian Institution Press, 1986), 158-160; also see Thomas C. Cochran, Frontiers of Change, Early Industrialism in America (New York: Oxford University Press, 1981), 78-100.

24 Karen Grant, et al., Fishtown, A Slice of Life (Philadelphia: Fishtown Civic Association, 1982), 6.

and planing mills, four rolling mills, and one calico print works. These forty-seven establishments used twenty-nine steam engines and employed over 2500 people.(25) By 1850 there were 114 manufacturing enterprises in the 4th and 5th wards of Kensington alone. These two wards composed all of Fishtown east of Shackamaxon Street.(26) Some of these enterprises were small but many, such as the James Rowland & Co. Rolling Mill, were quite large. Rowland employed 100 men and five steam engines in the production of 2500 tons of bar iron and 500 tons of steel. Other industries listed included fifteen boat and ship builders, six planing and saw mills, six cabinet, slat, chair, and box manufacturers, five glass makers, two brass foundries, and six carpet and hosiery weavers.(27) Population records show an increase from 9,388 people to 13,562 in the ten years between 1840 and 1850 for the 4th and 5th wards of Kensington.(28)

One of the largest employers in Fishtown, and a significant Philadelphia industry, began along the Delaware River during this period. William Cramp began building wooden ships on property at the foot of Otis Street (Susquehanna Avenue) in 1830, after serving an apprenticeship with Samuel Grice, another prominent Philadelphia shipbuilder. While producing a variety of vessels, Cramp determined that iron vessels proved more profitable. By 1860 he concentrated on the construction of only iron ships. During the Civil War, Cramp built iron-clads for the Union Navy including the frigate "New Ironsides." In the 1870s a contract to raise four ocean liners for the Philadelphia and Liverpool Line spurred the purchase of thirty-one acres of land for expansion north of Aramingo Canal in the 1870s. The Centennial Exhibition in 1876 resulted in foreign contracts from Russia and Japan.

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25 Elihu D. Tarr, Digest of Acts of Assembly Relating to the Kensington District of the Northern Liberties (Philadelphia: Isaac Ashmead, 1847), v.

26 The 4th and 5th wards of Kensington in 1850 described an area bounded by Shackamaxon, Frankford, and Norris streets, indicating much denser settlement, both in terms of industry and population, in those wards as opposed to 1840 figures. The 1840 ward boundaries were Shackamaxon, Girard, Front, Montgomery, Sixth, and Norris streets, a much larger area.

27 United States Census, State of Pennsylvania, Philadelphia County, Industry Schedule, Manuscript Returns: 1850.

28 Daly and Weinberg, 96.

William Cramp died in 1879, leaving the William Cramp and Sons Ship and Engine Building Co. to operate under the leadership of his son Charles. A steady demand for ocean liners and the lucrative contracts from the United States Navy to build a modern fleet of iron clad ships spurred continued growth and expansion toward the turn of the twentieth century. In 1890 the firm acquired the Charles Hillman & Sons shipyard, which merged with Cramp's original yard to become the Kensington Shipyard Company. The early 1900s saw the purchase the I. P. Morris Co. iron and brass works. To handle the added contracts for war vessels at the outbreak of World War One, Cramp and Sons constructed larger docks, enlarged its facilities, and expanded its workforce to employ over one thousand Fishtowners. After the war the shipbuilding industry suffered from a glut of merchant ships. Cramp and Sons could not weather the construction downswing. The firm shut down in 1927. In response to the Allied War effort of World War Two, Cramp and Sons reopened in 1941. Following the war, and ending one of the most important chapters of Philadelphia industrial history, Cramp and Son's ultimate end came in 1949. (29)

Another active enterprise to achieve prominence in Fishtown during this period also began in 1830. Jonathan Wainwright and Samuel Gillingham's steam powered saw mill and lumber business operated at Beach and Hanover (East Columbia Avenue) Streets. Wainwright and Gillingham sawed white pine, oak, and hemlock timbers for shipbuilding and girders from logs cut from forests upstream from Philadelphia on the Delaware and Susquehanna Rivers and rafted down to Fishtown. In 1854 Gillingham purchased land on Richmond Street along the Aramingo Canal and erected another steam powered sawmill. Gillingham's son, Joseph E., and David R. Garrison formed Gillingham and Garrison in 1855 to continued operation of the mill on Richmond Street mill. During their partnership, they acquired tracts in Clearfield and Cambria Counties and rafted timber down the Susquehanna, up the Chesapeake Bay, and through the Delaware and Chesapeake Canal to reach Fishtown. In 1876 Gillingham, Garrison & Co. was formed when Richard Torpin Jr., George Warner and Courtland Y. White joined the firm. Timber came from various points in the United States: yellow pine from Georgia, spruce from Maine, fir and redwood from Oregon, white pine from Pennsylvania and Michigan, oak from Delaware and West Virginia. Wainwright continued at the Beach and Hanover site. His son, Charles P. Wainwright, along with Willis L. Bryant, eventually took over the mill and sold

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29 Scharf and Westcott, 2338-39; also see Business Papers, The William Cramp & Sons Engine and Shipbuilding Company.

walnut, cherry, maple, and ash lumber.(30) Neafie and Levy steam engine manufacturers eventually acquired and developed the lumber yard.

Several other firms established in the period of the 1840s further illustrate the growing diversity of Fishtown's industries. In 1838 the Reaney and Neafie Penn Steam Engine & Boiler Works began manufacturing steam engines and boilers at the corner of Beach and Palmer streets. Reaney and Neafie, and their successors Neafie and Levy, also made iron boats, propellers, forgings, and brass and iron castings into the early 1900s.(31) In 1845 Verree & Mitchell opened the Penn Rolling Mill and Blast Furnace along the riverfront. The Port Richmond Ironworks of the I. P. Morris & Towne Company moved their brass and iron works to Fishtown from Sixth and Market streets in 1846. Originally founded as Levi Morris & Co. in 1828, it was later purchased by William Cramp & Sons. Bancroft & Sellers began manufacturing machine tools and mill gearing on Beach Street opposite Penn Treaty Park in 1848. Bancroft died in 1855 and the firm became William Sellers & Company. Sellers & Co. were highly regarded for the manufacture of teeth cutting wheels, lathes, planing machines, steam hammers, and screw stocks and dies. William Sellers, a noted inventor and mechanical engineer, also serving as president of the Midvale Steel Co. of the Nicetown section of Philadelphia 1873.(32)

A strong indication of increasing industrial and manufacturing activity in Fishtown during the 1830s and '40s was the attempt to improve transportation networks. Partially in response to the growth of Dyottville, 1834 witnessed the construction of a "fine, substantial bridge" over Gunner's Run at Queen Street (Richmond Street). Another bridge crossed the waterway at Prince Street (Girard Avenue) by 1835. The Gunner's Run Improvement Company, a private stock company organized in 1847, anticipated that the construction of a canal along the run would lead to increased traffic and expected to profit from its venture. The company proposed the

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30 Philadelphia and Popular Philadelphians (Philadelphia: The North American, 1891), 169; G. M. Hopkins, "Atlas of Philadelphia & Its Environs" (Philadelphia: G. M. Hopkins, 1877), Business Notes following p. 105.

31 An excellent description of Reaney and Neafie, and Neafie and Levy, is in David B. Tyler, The American Clyde, A History of Iron and Steel Shipbuilding on the Delaware from 1840 to World War I (Newark, Delaware: University of Delaware Press, 1958).

32 Scharf and Westcott, 2252; 2263-64.

Aramingo Canal along Gunner's from the river to the Philadelphia and Reading Railroad crossing, with tidewater to feed the canal at all times. Docks and wharves were constructed to handle the loading and unloading of goods and merchandise and an iron bridge replaced the previous Queen Street bridge in 1853. Although the company made "considerable improvements" the canal never sustained the traffic originally expected. Although ultimately a failure, the Improvement Company's efforts did spur industry and trade along its route.(33)

The appearance of carpet and hosiery weavers in the 1850 manufacturing census points to another specific industry that spread throughout Fishtown. This particular industrial activity proved an interesting manufacturing enterprise to study as the textile workers in Fishtown ranged from handloom weavers to factory workers, all within the same time period. The textile-related trades had long been established in the Philadelphia area prior to 1850. Germantown, in northwestern Philadelphia, first witnessed textile manufacture in the late 1690s. The majority of early textile production in Kensington focused on handloom carpet and hosiery weaving. Although documentary records do not indicate precisely when home production began, late nineteenth century historian Lorin Blodget states that domestic manufacture was well entrenched in Germantown and Kensington by 1845.(34) Describing hosiery manufacture in 1859, Edwin Freedley wrote that

the distinctive feature of the business is its handlooms and domesticity. Fully one half of the persons engaged in the production have no practical concern with the ten-hour system, or the factory system, or even the solar system. They work at such hours as they choose in their own homes, and their industry is mainly regulated by the state of the larder.(35)

Driven by the immigration of skilled English, Irish, German and Irish textile workers, 4,760 handlooms were in operation in Philadelphia in 1859. Freedley estimated the real figure to be nearer 6,000. This handloom tradition employed approximately 10,000 people city-wide and supported 35,000

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33 Scharf and Westcott, 2150.

34 Lorin Blodget, The Textile Industries of Philadelphia (Philadelphia: Collins, 1880), vi.

35 Edwin T. Freedley, Philadelphia and its Manufactures (Philadelphia: Edward Young, 1859), 241-42.

persons in 1859.(36) When surveyed again in 1880, Blodget counted 4,000 carpet handlooms, 1,500 hosiery handlooms, and 1,200 handlooms for larger knit goods such as cardigans. Blodget further stated that nearly 200,000 persons were supported by the textile industries in Kensington.(37)

Freedley briefly described the "outworking" tradition associated with handloom manufacture.

The material is furnished by manufacturers [of cotton and woolen yarn], and the weavers are paid by the yard. The weaving is done in the houses of the operatives; or in some cases a manufacturer, as he may be termed, has ten or twelve looms in a wooden building attached to his dwelling, and employs journeymen weavers - the [sic] employed in some instances boarding and lodging in the same house as their employers. Throughout parts of the city, especially that formerly known as Kensington, the sound of these looms may be heard at all hours - in garrets, cellars, and out-houses, as well as in the weavers apartments.(38)

This outworking tradition persisted in Fishtown into the early 1900s. In 1880 Blodget enumerated ten carpet manufacturers using 137 handlooms producing 60,200 yards per month. These manufacturers ranged in size from S. C. Ridpath & Co.'s 55 handlooms, with "15 of these looms at homes of weavers," making 25,000 yards, to William J. Crowe's three looms producing 1,500 yards.<sup>39</sup> A recent oral history of longtime Fishtown residents revealed a few persons who remembered playing in bales of cotton behind Crowe's carpet house in the pre-World War One Fishtown.(40)

Starting in the early 1850s, Fishtown began to participate in the accelerated industrialization of Philadelphia's textile trades. In 1851 German immigrant Martin Landenberger constructed a four-story steam-powered hosiery mill on the corner of Frankford Road and Wilkey

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36 Freedley, 252, 255.

37 Blodget, vi, xii.

38 Freedley, 252-53.

39 Blodget, 46, 49.

40 Karen Grant, et al., 20.

Street.(41) In 1844 "stocking maker" Landenberger employed twelve hands in either a shop at his residence located on St. John Street near Green Street or as a tenant in a local mill.(42) The 1850 Manufacturing Census identified Landenberger as a hosiery manufacturer in the Northern Liberties, west of Fishtown, employing 25 men and 100 women in the production of \$45,000 worth of hand-knit hose.(43)

Concentrating on the manufacture of woolen hosiery, Landenberger expanded his operation by 1856 and erected a ten-bay addition onto the building on Frankford Road. Freedley states that Landenberger's mill was the only large factory in Philadelphia producing hosiery, opera hoods, comforters, shawls, and scarfs.(44) By 1860 Landenberger possessed a twelve horsepower steam engine, running 124 knitting machines and twenty-two sewing machines. Hosiery, hoods, and scarfs worth \$275,000 were produced by 130 men and 300 women.(45) Landenberger's hosiery and blankets found a swelling market during the Civil War as orders for the Union army spurred sales.(46)

Landenberger continued expanding, increased production after the war and constructed another mill at 1045-1055 Frankford during 1871 and 1872 that he connected to the original mill by a second story covered-bridge spanning Wildey Street. By 1874 Landenberger employed 500 workers of predominantly English and German extraction and processed over 250,000 pounds of American wool annually. A steam engine of fifteen horse power drove a wool-scouring machine, a picker, ten twisting machines with 400 spindles, a spinning department consisting of eight mules with 2560 spindles, and fifteen power looms. Much of the machinery was fabricated in the

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41 Hexamer General Surveys. Number 98 (n.d.).

42 McElroy's Philadelphia City Directory for 1844 (Philadelphia: A. McElroy, 1844).

43 United States Census, State of Pennsylvania, Philadelphia County, Industry Schedule, Manuscript Returns: 1850.

44 Freedley, 242-43.

45 United States Census, State of Pennsylvania, Philadelphia County, Industrial Schedule, Manuscript Returns: 1860.

46 Philip Scranton, Proprietary Capitalism: The Textile Manufacture at Philadelphia (Philadelphia: Temple University Press, 1983), 286.



factory.(47)

Lorin Blodget describes the 1880 Landenberger mill as having two steam engines producing 160 horse power, twelve carding machine with 5800 spindles, 185 power knitters consisting of 150 circular heads, 15 Balmorals, 20 rib-top frames, heelers, and sleeves, and 115 broad frames, 40 sewing machines, 209 power weaver looms and 155 knitting frames. This machinery was used in the production of 4,500 dozen hosiery and 4,000 dozen fancy articles, hoods, shawls, cardigans, and scarfs per week, as well as wool yarns, and worsted shawls & dress goods.(48) In 1882 Landenberger sold the properties although they continued in textile manufacture for a few more years.

The historical progression of Landenberger's business illustrates the accumulation and reinvestment of private capital gained through outworking that led to business expansion. This progression proved typical of successful textile industries in Fishtown and Philadelphia during the nineteenth century.(49) Henry Becker and Justus Koch constructed a large mill complex on Moyer Street between East Columbia Avenue and Palmer Street over a nearly twenty-five year period. A three-story mill building erected in 1863 was enlarged by the addition of a three-story mill in 1871. Both buildings were subsequently raised one story in 1879. The last four-story addition was constructed in 1885. Harry Brownhill and George Kramer followed a similar method of accumulation and construction when they built additional stories on Louis Weber's hosiery mill erected in 1886. Brownhill & Kramer, hosiery manufacturers themselves, added a significantly larger mill to the complex in 1921.

By 1860 the textile trades in Fishtown included five cotton and woolen goods manufacturers, eleven carpet makers, and three dyers and printers.(50) Blodget, in his enumeration of over 1,000 buildings associated with the textile trades in Philadelphia in 1880, counted eight cotton and woolen fabric manufacturers, ten carpet manufacturers, and six hosiery producers in Fishtown. In his 1883 census of manufacturers,

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47 Hexamer General Surveys, Number 1619, (1882).

48 Blodget, 22, 55.

49 For an excellent discussion of this progression see Scranton.

50 United States Census, State of Pennsylvania, Philadelphia County, Industrial Schedules, Manuscript Returns: 1860.

Blodget identified one silk skein dyer, one embroidery shop, six hosiery and knit goods manufacturers, eight carpet makers, four dyeworks and finishers, and five wool and worsted fabric manufacturers.(51) By 1911 Fishtown was home to only nine establishments out of 830 throughout Philadelphia involved in textile production and related trades.(52)

While the industrial expansion and increased diversification of industrial activity continued during this period, it only foreshadowed the activity to follow the Civil War. While the eighty-six establishments enumerated in the 1860 Industrial Census represented fewer businesses than listed in 1850, many of the establishments were sizable ventures. Among the larger companies counted were Cramp & Sons, Vaughn & Fisher, Hillman and Straker - all shipbuilders; Neafie & Levy, the Penn Works Iron Foundry, the Leibrandt & McDowell Stove Works, Stephen Robbins' Rolling Mill, H. Becker & Co., Landenberger, and H. B. Benners' Dyottville Glassworks. Also included were Gillingham & Garrison's lumberyard and saw mill, H. & G. Kessler Carriage Factory, Ridpath's carpet mill, William King's alcohol and camphene manufactory, and Matthew J. Brady's planing mill and chair and sash manufactory. Two brass smelters, nineteen bakers, twenty-five boot and shoe makers, one sewing machine manufacturer, and three tinsmiths were listed as well. Marine related trades persisted, though, as the 1850 Industrial Census lists eleven fishermen employing eighty-two men and eleven women operating smokehouses employing nineteen women.(53) Forming the Eighteenth Ward of the City of Philadelphia, after Consolidation of the City and County occurred in 1854, Fishtown's population numbered 20,441 persons in 1860.(54)

#### The Industrial Era, circa 1870 to 1910

In the years following the Civil War, the markets of the western frontier helped spur Fishtown's industrial and community growth, peaking in the period between 1880 and 1900.

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51 Lorin Blodget, Census of Manufacturers of Philadelphia (Philadelphia: Dickson & Gilling, 1883).

52 John J. MacFarlane, The Textile Industries of Philadelphia (Philadelphia: The Philadelphia Commercial Museum, 1911).

53 United States Census, State of Pennsylvania, Philadelphia County, Industrial Schedules, Manuscript Returns: 1850.

54 Daly and Weinberg, 99.

By 1870 the population of the Eighteenth Ward had increased to 26,366. In 1880, the area showed continued growth as the census recorded 29,358 residents. A slight decrease in 1890 was followed by a slight increase to 29,643 people in 1900.(55) Although somewhat unreliable owing to the method of enumeration by districts as opposed to wards, the 1870 industrial census counted 213 establishments. The thirty-three boot and shoe makers, eleven bakers, and twenty cigar makers, constituting more than one-fourth of the total industries listed, provided an interesting statistic of local craft businesses in relationship to larger concerns. They may also indicate the extent that community growth required local craftspeople.

Three hosiery manufacturers, sixteen carpet makers, five dyers, eight boat builders, six saw mills, four marble cutters, one cedarware factory, and seven bedstead, furniture, and box manufacturers also were listed. Twenty-seven metal processing trades and nine marine-related occupations were counted as well.(56) The industrial activity depicted in this record begins to illustrate how diverse and populated Fishtown industry had become.

Cartographic representations of Fishtown's streetscapes depict a varied manufacturing environment. An 1877 atlas shows various lumber merchants, as well as Uhler and Fox, dealers in Vermont marble, and Robert H. Day's Union Steam Marble Works where "Ornamental Tombs, Mantels and House Work of all descriptions" are available. A. Horner's Bedstead Manufactory made every current style and pattern in walnut, poplar, maple, or in imitation of those woods. D. R. Humphries & Sons, mast and spar makers, L. Sykes & Sons Kensington Nut & Bolt Works, and E. W. Gorgas, steam saw mill also dotted Fishtown's waterfront landscape.(57) A much more vivid pictorial representation of Fishtown's increasingly dense industrial community exists on a Centennial map of 1876. This view only shows a small portion of southwestern Fishtown, an area depicted by many exhaust stacks belching smoke and a

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55 Daly and Weinberg, 99.

56 United States Census, State of Pennsylvania, Philadelphia County, Industrial Schedules, Manuscript Returns: 1870.

57 G. M. Hopkins, Atlas of Philadelphia & Its Environs (Philadelphia: G. M. Hopkins, 1877). Volume 6, Plate P; also business notes following p. 105.

waterfront inundated with ship traffic.(58)

Blodget in 1883 describes an industrial landscape not much different from ten years earlier.

The southern and central portions of these wards [the 16th, 17th, 18th, and 20th] are densely occupied and almost exclusively manufacturing, while the Delaware river front, from Poplar street to Lehigh avenue, is in part occupied with lumber and coal yards, with several shipbuilding establishments and iron-works.(59)

Three brass and bronze smelters, one brewery, one alcohol distillery, three furniture manufacturers, three glass houses, five rolling mills, two iron shipbuilders, three iron foundries, one wire works, three saw mills, one sugar refinery, one wharf builder, and thirteen wrought iron manufacturers appear among Fishtown's larger non-textile industries according to Blodget. A similar landscape exists on 1888 and 1895 maps of Fishtown.(60)

Changes in transportation systems also occurred throughout the neighborhood during this period, to assist both the residential and industrial customers. A railroad line serving waterfront industry connected the Delaware waterfront from the Navy Yard in South Philadelphia to the Philadelphia and Trenton line above Lehigh Avenue, following Beach Street through Fishtown on its route. The section through Fishtown was added from Dock Street to its northern terminus by 1881.(61) A freight yard and warehouse, known as the Shackamaxon yard and the Shackamaxon Stores on Delaware Avenue at Frankford Avenue, is a part of this system.(62) The transportation of passengers in Fishtown was facilitated on

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58 R. Stoifier, "Centennial Map of Philadelphia" (Philadelphia: T. R. Callender & Co., 1876).

59 Blodget (1883), 64-64.

60 William G. Baist, Property Atlas of the City and County of Philadelphia, Pennsylvania (Philadelphia: William G. Baist, 1888, 1895), 1888: Plates 18, 21; 1895: Plan 26.

61 Centennial History of the Pennsylvania Railroad 1846-1946 (Philadelphia: The Pennsylvania Railroad, 1949), 433, 511.

62 William G. Baist, 1888: Plates 18, 21; 1895: Plan 26.

trolley lines along Frankford and Girard Avenues, along Richmond Street to just beyond the Aramingo Canal, and with a loop line circling around Shackamaxon, Beach, and Palmer Streets to Girard Avenue. Before the erection of the Delaware River Bridge linking Philadelphia to Camden in 1926, ferry service provided transportation between the two cities. The line to Coopers Point, New Jersey, above Camden, had its slip on the Fishtown shore near the Pennsylvania Sugar Refinery at the end of Shackamaxon Street.(63)

Two examples of businesses that began manufacturing during this era of industrial expansion include the Delaware Rolling Mill and the A. J. Reach Sporting Goods Company. Both concerns remained in Fishtown well into the century. The Delaware Rolling Mill, started by Hughes and Patterson in 1870 on Richmond and Otis (Susquehanna) streets, became one of the largest metal processing plants in Fishtown. Producing 18,000 tons of rolled steel per year, the firm's equipment included ten puddling furnaces, six heating furnaces, and five train rolls. In 1889 Hughes & Patterson acquired the Philadelphia Rolling Mill, located at Beach and Vienna (Berks) streets, previously established in 1858. This acquisition added eight puddling furnaces, one busheling furnace, five heating furnaces, and four train rolls to their physical plant. In 1891 both mills produced 27,000 tons of merchant bar iron, scrolls, ovals, half-ovals, half-round, and horse-shoe iron.(64)

A. J. Reach & Company began making baseballs, footballs, and boxing gloves at a site on Tulip Street in northern Fishtown in 1892 employing 250 people. The company had an important impact on the Fishtown community. Before occupying the Tulip Street property he produced a variety of related products as a tenant at two other factories, at 1101-03 Frankford Avenue in the Morse Elevator property and at 1223 Beach Street. A 1916 industrial census states that over 1,000 people were employed at Reach. This figure may not include Fishtowners who sewed covers on baseballs in their homes. Reach sold all the properties to another sporting goods manufacturer, A. G. Spaulding Brothers, in 1934.

#### Twentieth Century Industry, circa 1910 to 1940

By the turn of the century Fishtown began to experience a

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63 Ibid. For information on the "Soupy" Island ferry, used for special charity excursions, see Grant et al Fishtown, A Slice of Life.

64 Philadelphia and Popular Philadelphians, 155.

shift to more modern industrial technologies and processes. Interesting examples of this transition period consist of the Morse Elevator Works, the American Can Company factory and the Electro-Nite Carbon Company. Morse, although starting in the 1880s, illustrates the appearance of mechanized processing plants that developed during the period.

In 1884 Stephen Morse, Carlton Williams, and Edwin Morse, purchased part of the former Landenberger Hosiery Mill buildings along Frankford Avenue. Producing passenger and freight elevators, the three men formed Morse, Williams & Co in 1886. Using six of the eight floors in the mill buildings, the Morse Elevator Works constructed steam, belt, and hand powered elevators with automatic hatch doors and gates. Two steam engines of 23 and 15 horse power drove woodworking machinery, including a planer, a joiner, a mortising machine, a circular saw, and a lathe. Employing 58 men and 12 boys, white pine and metal castings were fashioned into the various models of elevators.

Morse embarked on an ambitious building program in the late 1890s in order to meet the increasing demand for their electric and hydraulic high-speed passenger elevators. The buildings at 1105, 1107-1109, 1111-1119, and 1121-1127 Frankford Avenue, 1045-9 Sarah Street, 1100-1106 Shackamaxon Street, and 121-131 Wildey Street stand as evidence of this building expansion. Over 15,000 Morse elevators were in service at that time.

The Otis Elevator Company acquired Morse, Williams & Co. in 1902. A 1916 Industrial Census lists the Otis Elevator Co. as employing 90 men and women. Otis sold the properties in 1943. Guilbert, Inc., and its successor, the American Sterilizer Company bought most of the former Morse buildings in 1949 and produced elevators and dumbwaiters. In 1976 the Montgomery Elevator Company purchased the properties and continued Fishtown's association with the manufacture of elevators until 1987.

In 1911 American Can Company, a concern newly formed as a collection of small can factories, erected a general line can manufacturing plant on the corner of Beach and Palmer Streets. Although American Can was a leader in the development of sanitary cans, a process where food stuffs were safely packaged in tin cans without atmospheric leakage leading to spoilage, the Fishtown plant focused on non-food cans. American Can manufactured paint, varnish, oil, and cocoa cans of various sizes. Soup cans for the Campbell Soup Company located across the Delaware River in Camden, New Jersey were also produced in Fishtown. During the Second World War ammunition was manufactured in the plant. American Can stopped production in March of 1989.

The advent of effective electrical power and the subsequent demand for power by industrial and residential groups gave the Philadelphia Electric Company the impetus to construct a power generating station in Fishtown in 1919. Located on the corner of Beach Street and East Columbia Avenue, the Delaware Station generating plant quickly required expansion in 1923. Further demand for electricity necessitated expansion and further construction in 1953.

The Electro-Nite Carbon Company, located on East Columbia Avenue in a former carpet-cleaning complex, began manufacturing carbon-graphite brushes for electric motors in 1935. After World War Two, Electro-Nite focused on the production of disposable thermo-couples for use in the steel industry's electric crucibles. Electro-Nite soon outgrew their shop on Columbia Avenue and moved to large quarters on Torresdale Avenue and Mercator Road. Electro-Nite's thermo-couples continue to be used throughout the world, especially in Japan's steel industry.

#### Fishtown and the Decline of Philadelphia Industry, circa 1940 to the Present

Fishtown as a microcosm of Philadelphia reflects the same loss of industrial activity found throughout the City. Beginning after the Depression and following the Second World War, manufacturing in the large industrial cities experienced a gradual decline. Continuing into the last period of the twentieth century, the manufacturing base in Fishtown and Philadelphia has declined dramatically from the previous century. The rate of decline compares to the increase in industry witnessed in the nineteenth century. Fishtown's largest industrial concerns have all closed - Ajax Metals, Cramp and Son's Shipyard, Otis Elevator, American Can Company, A. J. Reach Sporting Goods, B & B Dyeworks, and Brownhill and Kramer Hosiery Mill. The loss of these particular companies had a serious effect on the neighborhood, for all of these companies drew on the community for employees. When American Can Company made its last cans in March of 1989, the work force of approximately 200 employees included many residing in the Fishtown. One employee was the last of four generations to work in the plant.

As home and workplace within the neighborhood were closely tied, the number of unemployed has risen and the income level has declined. Although the neighborhood has begun to experience a change in the character of its citizenry through gentrification, many Fishtowners remain as descendents from earlier residents.

The physical appearance of Fishtown mirrors the loss of

its industrial base. With the closing of factories and companies, the buildings sit idle, often deteriorating. Others buildings continue as industrial sites with the inhabitants utilizing only a small portion of the vast spaces that once hummed with activity. Some buildings or sites have experienced redevelopment or exist today as vacant parcels.

A large number of industrial sites remain in Fishtown as vestiges of its rich and diverse industrial past and serve to reflect both the pattern of development and the amount of industry. Industrial activity in the neighborhood followed general clustering, with some industrial activity scattered throughout the residential areas. Generally, the heaviest concentration of industry developed along the Delaware River and Beach Street and along Frankford Avenue. Lighter activity took place on Girard Avenue, the commercial corridor. Richmond Street contained a mixture of the two. Two major transportation improvement projects permanently eliminated sites from Richmond Street, Aramingo and Delaware Avenues. The widening of North Delaware Avenue in 1921 destroyed many of Fishtown's waterfront industrial sites, and a similar effect reoccurred in the late 1950s and early 1960s when a Federal interstate highway obliterated most of Richmond Avenue. In spite of this destruction, the resources that remain on the landscape, both architectural and archeological, provide the physical fabric to interpret the activities of Fishtown's industrial past.



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