

THE LONG ISLAND HISTORICAL JOURNAL



Spring 1994
Volume 6 • Number 2



"Starting from fish-shape Paumanok where I was born..."

Walt Whitman

Spring 1994

Volume 6 • Number 2

**PUBLISHED BY
THE DEPARTMENT OF HISTORY
STATE UNIVERSITY OF NEW YORK AT STONY BROOK**

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ISSN 0898-7084

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**Articles appearing in this journal are abstracted and indexed in
*Historical Abstracts and America: History and Life.***

The editors gratefully acknowledge the support of the Office of the Provost and of the Dean of Social and Behavioral Sciences, USB. We thank the Center for Excellence and Innovation in Education, USB, the Long Island Savings Bank, and the Long Island Studies Council for their generous assistance. We appreciate the unstinting cooperation of Wilbur R. Miller, Chair, Department of History, USB, and of Joel T. Rosenthal and Fred Weinstein, his predecessors. We owe a special vote of thanks to Carl L. Burgos, Richard C. Koch and staff, Graphic Support Services, USB, and Patricia A. Foster and staff, Publications Office, USB, for their indispensable help in designing and printing the LIHJ. We also thank Jeanne Pandolfo, Health Sciences SINC Center, USB for her splendid cooperation.

The *Long Island Historical Journal* is published twice a year, in May and November. Yearly subscriptions are \$15.00, single copies \$8.00. Address articles, correspondence, books for review, and subscriptions to:

The Editor, *LIHJ*
Department of History
University at Stony Brook
Stony Brook, NY 11794-4348

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Cover: Edith Loring Fullerton driving Theodore Roosevelt, her husband Hal B. Fullerton (behind TR), and LIRR President Ralph Peters at the railroad's Wading River experimental farm, 1910. Photo, courtesy of the Suffolk County Historical Society, Riverhead.

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Long Island Studies Council

An interdisciplinary membership group of scholars, teachers, librarians, archivists, historians, and others interested in the study of Long Island and its heritage, invites readers of the Long Island Historical Journal to its dinner-lecture meetings and site visits.

For information write to the
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Announcing Two Important Exhibits

The Society for the Preservation of Long Island Antiquities
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Using its own extensive collection of nineteenth-century lithographs and acquiring loans from major institutions, this exhibit focuses on the history, craftsmanship, and far-reaching importance of the art of lithography. Unabashedly appealing to popular taste, lithographs became the mass media of the period.

2) Castles in the Sand The Design of the Long Island State Parks

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Editorial Comment

This issue contains an especially significant assortment of articles and reviews. First, our “State of the Island” section presents a sweepingly comprehensive “Anatomy of the Long Island Economy,” written by the distinguished scholar and regional planner, Lee E. Koppelman, and his economist colleague Pearl M. Kamer. Next is Robert B. MacKay’s introduction to the exhaustive survey, *Long Island Country Houses and Their Architects: 1860-1940* (forthcoming from W. W. Norton); we thank the Society for the Preservation of Long Island Antiquities for permission to publish this excerpt by its director.

We also call your attention to USB map librarian David Yehling Allen’s analysis of the development of the techniques of making nineteenth-century maps and charts of Long Island; to “Bibles and Muskets,” in which John Charles Witek provides another of his original studies of East End Native Americans; to James P. Johnson’s discussion of the life and inventions of Lewis Howard Latimer, a brilliant and insufficiently recognized black inventor; and to “Columbus and the Whitman Connection,” Frank J. Cavaioli’s provocative essay on the influence of the great admiral on the mind of Long Island and America’s “good, gray poet.”

Chet Chorzempa reminds us of the turn-of-the-century accomplishments of “The Fullertons [Hal B. and his wife Edith] and the Experimental Farms of the LIRR,” and, finally, we are pleased to reprint Judith Lee Hallock’s fascinating report on the problems of filling Long Island’s Civil War recruitment quotas. In addition, this issue offers a wide range of book and exhibit reviews.

Many readers commented favorably on Part 1 of Jane S. Gombieski’s analysis of the Ku Klux Klan in Suffolk County, 1915-1928, which appeared in Fall 1993. Part 2 has been postponed until Fall 1994, when we will publish it together with the second half of Koppelman and Kamer’s “Anatomy of the Long Island Economy,” and many other interesting articles.

Stand by for the brochure we’ll send you soon to sign up for Volume 7 (Fall 1994/Spring 1995), still at the inflation-defying bargain price of \$15 a year. The *LIHJ* depends on you—please maintain our existence by your renewals. Also keep in mind that we welcome your articles, reviews, and suggestions: this reader-supported journal belongs to you.

Anatomy of the Long Island Economy: Retrospective and Prospective

By Lee E. Koppelman and Pearl M. Kamer

Editors' note: Our State of the Island series enables leading scholars and planners to evaluate and offer solutions of problems confronting Long Island.

This article is based on studies of the Long Island Regional Planning Board, carried out over the past five years and culminating in the recently released draft: Lee E. Koppelman and Pearl M. Kamer, *The Long Island Regional Strategic Economic Development Plan* (Hauppauge, 1993). Demographic statistics are taken directly from U.S. Bureau of the Census decennial counts, biennial business censuses, or calculations of the Long Island Regional Planning Board based on the census numbers.

Part 1: Retrospective

Introduction

One of the prime concerns affecting the nation, New York State, and Long Island is the condition of the economy. The persistent recession experienced over the past half-decade has produced a reduction in Long Island real estate sales values upwards of 30 percent for houses, vacancies in all classes of commercial properties, and a loss of more than 100,000 jobs in Nassau and Suffolk Counties.

This situation is an anomaly for a region that was considered almost recession-proof since the end of World War II. Most of the national, New York State, and city of New York downturns over the past half-century produced mild impacts for the two counties that were the fastest growing counties in the nation for the two decades following the War, and have remained among the top ten counties in the country as measured by family disposable income.

Past municipal, county, and regional planning concerns focused on the economy from the position of exercising control over what often appeared to be runaway growth. Little governmental stimulus was required locally to promote commercial, industrial, or job growth.

The new concentration represents an almost complete reversal in that the task now is to stimulate new job generators while striving to maintain existing jobs. This shift in public policy direction is the result of

international, national, and regional changes that have seriously impacted the local economy in recent years.

The stabilization of population growth, coupled with a dramatic inflationary increase in land values and housing costs, slowed the construction industry—once the bellwether of the Long Island economy—to a trickle. More than half of those employed in construction lost their jobs. The end of the so-called cold war has had a hemorrhaging effect on defense related employment. In addition, high costs of energy, property and sales taxation, overburdened highway systems, and increased conflicts between environmentally committed activists and development proponents have all contributed to a difficult, if not hostile, business climate.

In a very real sense, Long Island is at an economic crossroads. The decisions and actions that will be taken in the near future will determine whether or not the Island will rebound from its current economic malaise.

This article summarizes the current status of the Long Island economy and provides projections of what can occur between the present and the year 2010, assuming that a variety of public policy decisions are favorably acted upon.

Nationally, the various sectors of the economy can be described in terms of their contribution to Gross Domestic Produce (GDP). Regional economic areas are more adequately defined by the distribution of employment and income generated for each industrial class. Long Island's current dominant group is the service industry, including personal, business, health and educational services, repair and maintenance services, and recreational services.

The service sector accounts for about 38 percent of employment and income generated. Wholesale and retail trade is the second-largest group, with 27 percent of the jobs, but only 20 percent of the earned income. This is because many retail jobs are relatively low-paying. Manufacturing jobs provide 12 percent of employment but almost 15 percent of income generated. The remaining 22 percent includes agriculture, construction, transportation and utilities, government and finance, insurance and real estate; generally, 27 percent of income.

Employment increased by approximately 370,000 jobs in the 1980-1990 decade—a gain of 37 percent—with two-thirds of this growth occurring in the service sector. The employment losses in this period were in manufacturing, especially electronics, aircraft, and other defense related jobs. The concern that this shift in the structure of the economy would mean the replacement of high-paying manufacturing jobs with low-paying service jobs did not materialize. The new service jobs in technical services, artificial intelligence, and health care clearly demonstrate that the Long Island economy is moving inexorably toward high-wage, high-skill jobs.

Demographic Pattern of the Labor Force

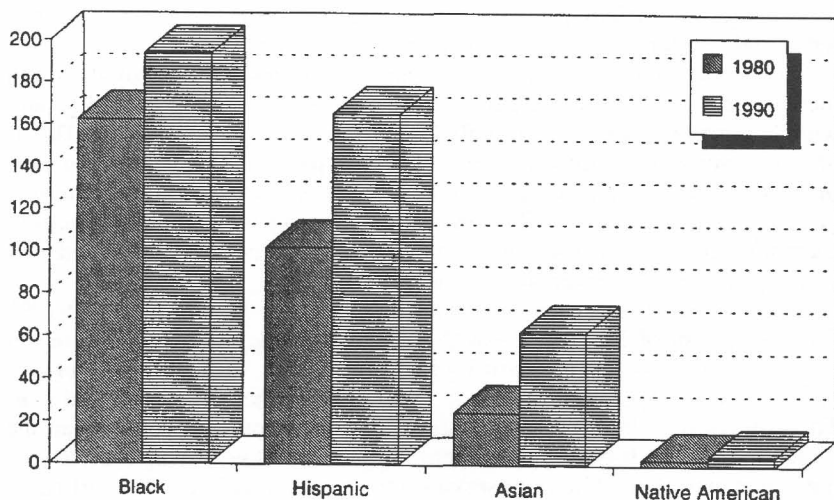
Long Island's population sustained its greatest expansion in the quarter of a century following World War II. Between 1950 and 1970 there was more than a two-and-one-half times increase, from less than one million to more

than 2.5 million persons. Since then, the total population has remained stable with small losses in Nassau County offset by slightly larger increases in Suffolk. See graph 1.

A more significant shift has occurred in racial composition. Between 1980 and 1990 the white population has declined about 4 percent, while the black population increased by 19 percent, Hispanic population increased by 62 percent, and Asian population increased two-and-one-half times, or 38,000 persons. Although the non-white population is still a small percent of the total population, there obviously have been more opportunities for access to housing than in previous years. See graph 2. This has resulted in a noticeable change in the racial composition of the labor force. Between 1980 and 1990, the white portion of the resident labor force increased by 8 percent, the black portion by 41 percent, Hispanics by 93 percent, and Asians by almost 179 percent.

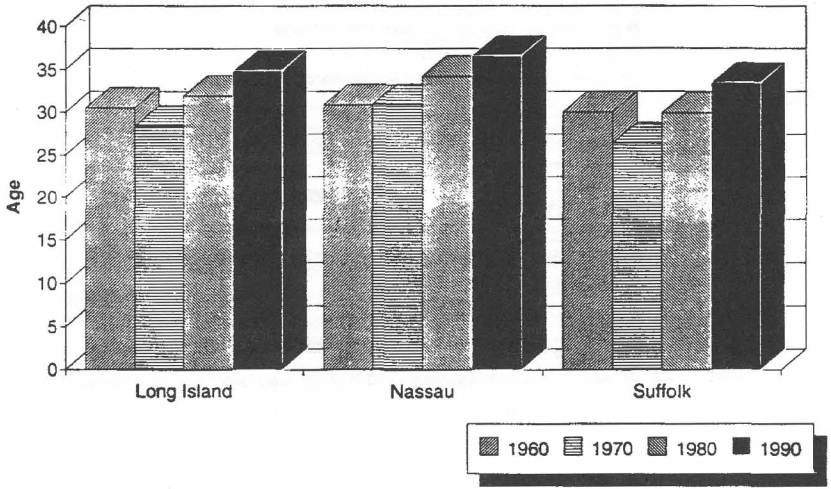
Blacks accounted for 7 percent of the labor force in 1990, but for 18 percent of the increase between 1980 and 1990. Hispanics accounted for 6 percent of the labor force in 1990, but for 26 percent of the increase between 1980 and 1990. Asians accounted for 2 percent of the labor force in 1990, but for 12 percent of the increase between 1980 and 1990. See graph 3.

Graph 1 – Long Island Minority Population

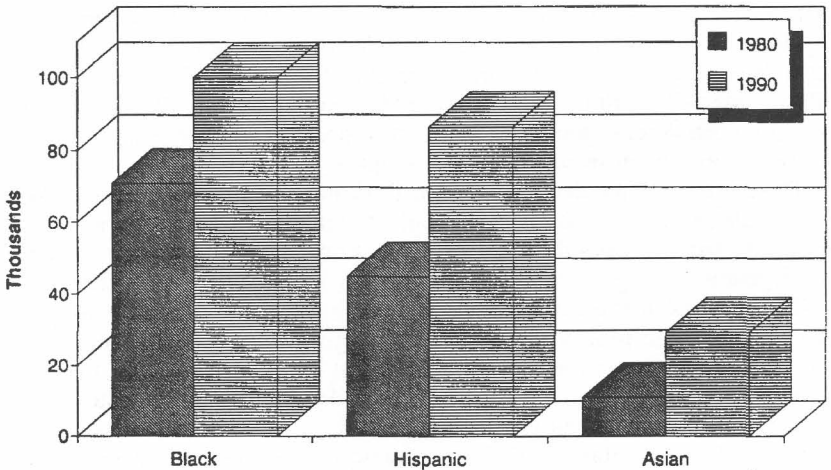


The occupational compositions also changed in the 1980s, when the number of white-collar workers increased by 22 percent, service workers by 10 percent, and those engaged in agriculture and fishing by 13 percent. (However, the number of blue-collar workers declined by 5 percent). In addition, women, who comprised 45 percent of the 1990 labor force, were responsible for three-quarters of the growth of the labor force during the

Graph 2 – Long Island Median Age

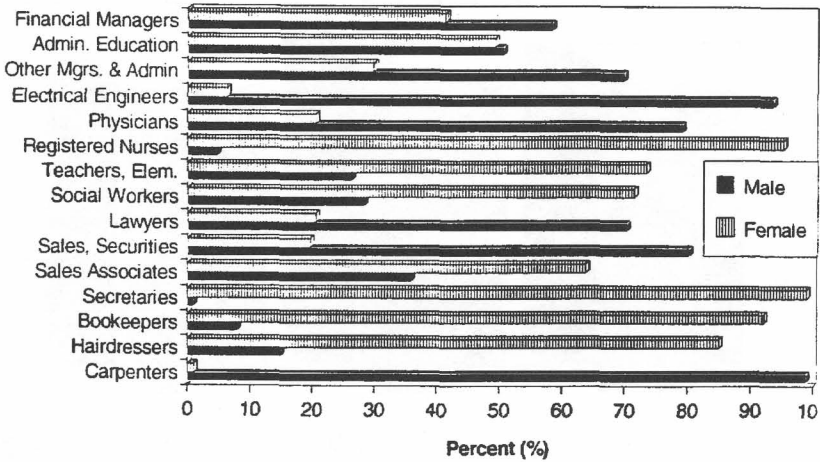


Graph 3 – Long Island Civilian Labor Force



1980-1990 decade. Although more women are gaining employment in medicine, law, and management, they nevertheless remain over-represented in generally lower-paying “women’s fields” such as elementary education, clerical jobs, and social work. See graph 4.

Graph 4 - Occupation by Percent (%) Male and Female - 1990



The Manufacturing Sector

Despite the contraction of defense jobs, it is clear that a vibrant manufacturing base is vital to the health of the Long Island economy. If President Clinton's budget proposal for defense to fall almost \$50 billion by 1997 is implemented, a drop of 17 percent from the 1993 level of \$273 billion, this will result in a loss of 45 to 60 thousand jobs in New York State. Because each defense job has a multiplier impact of one, or two-to-one, the net loss of jobs in all sectors could be as high as 180,000.

The current defense decline between 1985 and 1993, when defense outlays fell by 29 percent, has been particularly traumatic for Long Island, which accounts for a preponderance of New York State's defense industry employment. During this period the Island lost 43 percent of its defense jobs.

This decline mirrored the decline in defense prime contracts to Long Island firms. The peak years of 1985 through 1987 yielded more than \$5 billion annually in contracts. This declined to less than \$3 billion by 1992. Two-thirds of all the defense work was provided by the United States Navy, primarily to the Grumman Corporation, which received almost three-fourths of the total dollar value of all prime contracts. This finding underscores the extent to which Long Island's defense sector depends on the fortunes of a single company.

Long Island's Competitive Position in Manufacturing

Given the Island's high cost structure, the main path to enable manufacturers to remain competitive is through superior worker productivity.

The measures of productivity include value added per employee, value added per production worker, and value added per dollar of wages.

Conventional wisdom suggests that high manufacturing earnings and high productivity are closely linked. The assumption is that high productivity boosts profits, thereby enabling management to raise wages. This relationship is borne out in the latest Census of Manufactures for several industrial groups. Nevertheless, enough exceptions exist to suggest that other factors exist which blur the relationship between productivity and wages. For example, in instruments, above-average wages were associated with below-average productivity.

These anomalies might reflect differences in skill levels between industries, the capital intensity of each industry, the impact of unionization within each industry, product uniqueness, and the quality of management. The extent to which given industries are defense related also has bearing, because such industries are subject to different competitive pressures than non-defense manufacturers. The arduous developmental phase of a defense project, in contrast to the production phase, renders the process of competitive analysis very difficult. The differences in value added in each phase are probably more closely related to differences in the nature of the work rather than to differences in worker productivity.

Comparing Long Island's workforce with selected states and regions on an industry-by-industry basis reveals a mixed conclusion. Printing and publishing, fabricated metal products, metal-working machinery, and equipment are industries in which the Island is very favorably competitive. Even though salaries are above the mean, the level of value added per employee was sufficiently above the other states to more than offset the higher wages.

In contrast, a productivity weakness exists in instruments and electronics. This is significant because these are two of the key strategic industries upon which the Island must be competitive if the goal of strengthening a high-technology manufacturing base is to succeed. Part of an explanation may be the defense production emphasis currently dominating these industries on the Island. For many years an insulation from the competitive pressures of the market place has contributed to this weakness.

The Tourism Industry

Tourism on Long Island is a \$2.3 billion industry. Long Island's travel-related industries, which include travel agents and tour operators, restaurants, eating and drinking places, hotels, motels, and tourist courts, and amusement and recreational services, employed almost 92,000 persons in 1991—a larger work force than the electronics, instruments, and aircraft industries combined. Approximately 24 million visitors come to Long Island annually. To accommodate these visitors, Long Island has developed a large tourist-related infrastructure. It includes 84 museums, 28 legitimate theatres, 300 hotels and motels with a total of 14,000 rooms, 113 golf courses, 95 tennis clubs, 86

major parks encompassing 55,000 acres, and 429 yacht clubs and marinas.

Nevertheless, tourism and business travel are not automatic growth industries. They must be carefully nurtured in order to produce acceptable growth rates. The growth of travel-related employment on Long Island plateaued in the early 1990s just as a large number of new hotel rooms came on line. If tourism growth is to resume and accelerate, Long Island must be responsive to the changing travel market. It must position itself as a multi-season tourist destination, and as a full-service location for business meetings and conventions. The travel industry must also market its products and services more broadly to potential domestic and foreign visitors.

There were an estimated 92,000 travel-related jobs on Long Island in 1991. These jobs generated total payrolls in excess of \$1.3 billion. Although the travel-related industries are a major source of jobs, many are part-time or seasonal jobs that pay relatively low salaries. Of the 92,000 jobs identified as travel-related in 1991, only 7,000 jobs or about 8 percent of the total were in industries that paid average annual salaries of \$25,000 or more. Some 57,000 jobs, 59 percent of the total, were in industries with average annual salaries of less than \$10,000. The predominance of food and beverage preparation workers, janitors, cleaners, maids, and housekeepers explains the relatively low average annual salaries associated with the travel-related industries.

However, some of these industries are characterized by unusually high multipliers. There are extensive and complex linkages with other industries, so that any increase in travel-related spending is multiplied through successive respending. The highest multipliers are associated with commercial sports. This is also the case for theatrical producers, entertainers, sports clubs, new hotels, motels, and amusement and recreation buildings. It is noteworthy that the multipliers exceeded those found in manufacturing except for aircraft and parts. This suggests that travel-related industries deserve the attention of economic development agencies. The "I Love New York" promotion is more than pride-of-place boosterism. It makes solid economic sense.

The hospitality industry on Long Island has changed dramatically during the past decade. During the late 1980s, Long Island's small-scale East End hotels geared to the leisure traveler were supplemented by major full-service hotels, generally part of national hotel chains, that serve the business traveler as well. The Long Island economy slipped into its most severe post-war economic recession just as many of these new hotel rooms came on line. Businesses reduced their travel and entertainment budgets in response to the more austere economic climate. At the same time, the leisure-travel market plateaued following a decade of strong growth. Long Island's leisure travel market was greatly affected by the deseasonalization of pleasure travel. Leisure travelers now take winter as well as summer vacations, which has tended to reduce the duration and relative significance of summer vacation travel. This worked to Long Island's disadvantage because Long Island has not been a strong competitor for winter travel.

If Long Island is to increase its share of the travel market, it must understand what motivates people to travel and what they expect in terms of the travel experience. The motives behind business travel are self-explanatory. During the 1990s, tighter corporate travel budgets will motivate business travelers to seek greater value for their money. They will also choose accommodations and locations that offer ancillary business services such as in-room computer hookups and access to fax machines and secretarial services.

The leisure travel market is more complex. Most leisure travelers pursue several simultaneous goals. They want to participate in a variety of sports, cultural pursuits, shopping and sightseeing activities and Long Island must satisfy as many of these goals as possible.

A potential strength for the Island is the increasing deseasonalization of vacation travel. The shift to year-round tourism provides a stronger and more stable employment base. In addition, commercial sports, with its high multiplier, is receiving attention in both counties. The Nassau Sports Commission and the Long Island Sports Commission, are attempting to attract amateur and professional sports activities. The Long Island Sports Commission has succeeded in attracting the Goodwill Games to Long Island in 1998. These games, with athletes from more than sixty countries, feature such events as archery, cycling, figure skating, ice hockey, judo, speed skating, swimming, diving, water polo, wrestling, and yachting.

Long Island's Educational Institutions

Long Island possesses a diversified higher-educational structure that includes trade and technical schools, two-year colleges, four-year colleges offering both undergraduate and graduate education, and professional schools. Long Island is a high-cost area. This puts it at a competitive disadvantage relative to areas with lower living costs and production costs. Long Island's principal competitive advantage consists of the skills of its labor force. Long Island's colleges and vocational schools play a vital role in educating the labor force and equipping them with the skills needed by current and future employers.

Trade and Technical Schools. As of the 1992-93 academic year, Long Island contained fourteen accredited technical and trade schools. They collectively enrolled 11,500 students and employed approximately 380 faculty members. The training they offer ranges from real estate appraisal and brokerage to commercial driver training, court reporting, restaurant management, drafting, computer programming and operations, electronics, data entry, and various paraprofessional medical technologies. Many of these courses can be completed in six months or less. Others require one or two years. If Long Island is to expand its high-technology employment base, it needs not only scientists and engineers but also appropriately trained technical support personnel.

Four-Year Colleges and Universities. Long Island's four-year colleges and universities enrolled almost 83,000 graduate and undergraduate students

and collectively employed almost 7,000 faculty members during the 1992-93 academic year. The public sector four-year institutions included SUNY at Stony Brook, SUNY at Old Westbury, SUNY College of Technology at Farmingdale, SUNY Empire State College, and the U.S. Merchant Marine Academy. The private four-year institutions include Adelphi University, Hofstra University, Long Island University, Dowling College, and the New York Institute of Technology.

Professional Schools. During the 1992-93 academic year, Long Island's five professional schools collectively enrolled approximately 3,000 students in the fields of law and medicine.

Two-Year Colleges. Additional technical training is available at Long Island's two-year colleges. These include Briarcliff Business College, Katherine Gibbs School, Nassau and Suffolk Community Colleges, and Touro College School of Health Sciences. During the 1992-93 academic year, these institutions collectively enrolled almost 47,000 students.

Long Island's educational institutions contribute materially to the Long Island economy not only in terms of wages paid but also in terms of the goods and services they purchase. In the first quarter of 1993, Long Island's private elementary and secondary schools and colleges employed more than 19,000 persons. They generated annual payrolls of \$404 million. The private colleges alone generated annual payrolls of \$200 million. Long Island's public elementary and secondary schools and colleges employed almost 83,000 persons. They generated annual payrolls of almost \$3 billion in 1993. The public colleges alone generated annual payrolls of \$425 million. Long Island's educational institutions account for approximately 15 percent of total payrolls on Long Island. They are a significant segment of the Long Island economy. Dr. James M. Shuart, President of Hofstra University, summed it up succinctly when he observed, "Every student to our school represents a four-year \$60,000 contract." Considering that there are more than 145,000 students enrolled in Long Island's higher-education institutions, which employ more than 11,000 faculty, education obviously ranks as one of the major economic activities on the Island.

Energy

Electric power is an integral part of the Long Island economy. It is an essential commodity, particularly for energy-dependent high-tech industries. It is also a major industrial component of the Island's economy. Unfortunately, the cost of power is also one of the major deterrents to economic growth.

With the Shoreham nuclear power plant closed, Long Island faces the next two decades with serious energy handicaps. Long Island remains overly dependent upon imported oil for electricity, home heating, and gasoline. As a result, it faces recurring price spikes as well as the danger of acute shortages. Moreover, the cost of Shoreham guarantees that the Long Island Lighting Company will have the highest electricity prices in the continental U.S. for at

least a decade. Natural gas, an alternative fuel, remains unavailable to a large part of Long Island's population. Essentially, Long Island has three main energy problems: the continuing problem of overdependence upon petroleum; the imminent problem of escalating electricity rates; and the future need to restrict greenhouse gas emissions. Energy conservation has lagged since the mid-1980s, when oil prices were low and government supports ended. LILCO's demand-side management program, while slanted toward load shifting and peak shaving, is the principal impetus to conservation on Long Island, and it is essentially limited to electricity. However, the cost of LILCO's demand-side management program feeds back to its electricity rates, raising the cost of electricity even more.

Electricity. About one-third of Long Island's energy needs are provided by electricity. Overshadowing Long Island's future is the continuing burden of the Shoreham nuclear plant. Under the terms of the settlement, \$4 billion amortized over the next forty years will be charged to LILCO's electric ratepayers.

Another issue that compounds the problem is the fact that several of LILCO's aging power plants are due to be phased out during the 1990s, leaving a growing gap between its power requirements and its capacity. The gap can be filled by reducing demand through further energy conservation, by additional generating capacity on Long Island owned either by LILCO, the New York Power Authority, or independent power producers, or by additional electricity imports.

Energy conservation is the preferred solution, but there are questions as to how much energy can be saved at what cost and at what effect on electricity rates. Local cogeneration is the next best solution, but there are questions about the dependability of independent power producers. Any local electric generators are likely to be fueled by natural gas, and there is a question as to whether natural gas supplies will continue to be adequate. Quebec has huge potential for developing additional hydropower for export, but there is a question as to how it could reach Long Island.

Natural Gas Supply. Nationwide, the utility industry is turning to natural gas. Compressed natural gas (CNG) vehicles are being widely introduced, and they can help to reduce Long Island's dependence upon gasoline. Natural gas furnaces can replace those using oil. Natural gas appliances can replace those using electricity. Recently developed natural gas heat pumps for residences may reduce the need for electricity to meet summer peak cooling loads.

Whether natural gas supplies will continue to be adequate to meet this growing demand is a question. The Northeast is dependent primarily upon pipelines from the Gulf States and the Canadian West. The interstate natural gas pipeline infrastructure serving New York State is inadequate. The expected expansion into new markets, such as cogeneration and primary fuel for power plants, cannot occur without significant capacity additions including new pipelines.

The Iroquois pipeline that brings natural gas to Long Island across Long

Island Sound will increase LILCO's supplies by about one-eighth, not enough for power plant fuel as well as expansion for retail users. The capacity of Iroquois can be doubled with additional pumping stations, and at least one other gas pipeline will probably reach Long Island's south shore within a decade. Nevertheless, Long Island will remain at the tail end of the pipelines.

Hydroelectric. The major potential source of renewable energy for Long Island is hydroelectric power imported from upstate New York and Quebec. Half of the renewable energy in the U.S. today comes from hydroelectric dams. Long Island receives some of this energy from the New York Power Authority plants at Niagara Falls. This is extraordinarily cheap energy, about two cents per kilowatt-hour. The hydroelectric power that LILCO will begin receiving from Quebec in 1995-96 at about seven or eight cents per kilowatt-hour is priced to be lower than the avoided costs of New York State utilities. Future prices of Quebec hydropower are negotiable. The cost of new construction is rising, but on the other hand, Quebec's export price to the neighboring province of Ontario has been about one-third less than to New York. However, there is little enthusiasm among New York State utilities for purchasing additional Canadian hydropower, and there are technical problems. One problem is the capacity of transmission lines connecting Long Island to the mainland.

The New York Power Authority cable makes it possible to import Quebec hydropower later in the decade. According to modeling studies performed by the New York State Energy Office, however, the connection between Long Island through ConEd to the rest of the New York Power Pool will remain the most heavily loaded interconnection in the State. Long Island is, in effect, an appendage of the New York Power Pool. This isolation has led LILCO to argue in the past that it needs a 30 percent safety margin for its installed power rather than the 18 percent that is required by the New York Power Pool. An alternative to greater generating capacity on Long Island, however, would be better integration into the regional power pools. This would seem to be possible by making better connections with the New England Power Pool, ten-to-twenty-five miles across Long Island Sound.

Industrial and Commercial Land Use

Retail Space. As of December 1990, the total retail square footage of Long Island shopping centers and Central Business Districts (CBDs) was 34,318,000 in Nassau County and 35,182,000 in Suffolk County. There has been considerable growth in the volume of retail space per resident on Long Island since 1970. Retail square footage per capita has increased 37 percent in the last two decades, from 18.6 square feet in 1970 to 25.5 square feet in 1990.

Office Space. The construction of large office buildings of more than 15,000 square feet is a relatively recent phenomenon on Long Island. Major office space is defined as a privately owned office building, or group of offices, totaling more than 15,000 square feet. As of January 1991, there were forty-four million square feet of major office space on Long Island, with an

additional sixteen million proposed or under construction.

Many of the newly constructed major office buildings in Nassau County that are located in cluster/corridor areas are the result of redevelopment of industrial properties. Other areas still contain large amounts of industrial space, and the offices have been developed as an adjunct to that space. Whereas some offices are located in central business districts, many of the largest, newer office buildings are located within short distances of expressway and parkway systems. These large offices provide amenities such as restaurants, retail shops, and exercise facilities, previously available only in central business district locations. Concentrations of small office buildings exist in some central business districts such as Huntington, Lynbrook, and The Branch. Other concentrations have developed along major roads such as Deer Park Avenue in Deer Park. In Nassau County an additional four million square feet of major office space is proposed for the Mitchel Field/Roosevelt Field area. An additional three million square feet of offices is proposed in Bethpage in the event that the Grumman property is redeveloped. In Suffolk one million square feet of office space is proposed for the Hauppauge/Long Island Expressway area. If all of the proposed office space comes on line, Long Island would contain more than fifty-eight million square feet of major office space.

Industrial Land Use. At present, twenty-seven municipalities in Nassau County and twenty in Suffolk County have some provision in their zoning ordinance for industrial development. This represents 44 percent of all the municipalities on Long Island.

Currently, there are 40,000 acres of industrially zoned land on Long Island. This represents more than 5 percent of Long Island's total land area of 1,200 square miles. Nassau County has 7,000 acres of industrially zoned land, or almost 4 percent of its land area. Suffolk contains 33,000 industrially zoned acres, or 5.7 percent of its land area.

Local provisions for industrial uses are extremely varied. Some of the ordinances allow only research and development activities, while others allow heavy commercial activities. Some ordinances provide for all types of industrial uses within industrial zones. These include light manufacturing, warehousing, and wholesaling.

Nassau's 7,000 acres of industrially zoned land constitute 18 percent of the Long Island total. The Mitchel Field area in Garden City East has the largest amount of industrially zoned land, almost 850 acres. There are also 700 industrially zoned acres in Bethpage, which includes Grumman's main facilities. The third largest industrial area encompasses 650 acres in Hicksville, where LILCO has its headquarters.

Suffolk's 33,000 acres of industrially zoned land constitute 82 percent of the Long Island total. Brookhaven alone has 8,300 acres of industrially zoned land, one-fourth of Suffolk's total. The town of Islip is second with 6,300 acres, and Riverhead now ranks third with 5,400 acres.

Suffolk County now has 9,400 acres of industrial uses on industrially

zoned land. This represents three-fourths of the industrially developed land on Long Island. Only 29 percent of all industrially zoned land in Suffolk has been developed for industry. Suffolk County industry has expanded greatly since 1979. Between 1979 and 1988, approximately 210 acres per year were developed for industrial purposes.

Agriculture

Long Island remains one of New York State's major agricultural areas. Suffolk was the largest agricultural producing county in the state, with sales exceeding \$115 million in 1987, the latest year for which comprehensive agricultural data are available. There were 696 farms in Suffolk County in 1987, so that this sales figure translates into an average of \$165,455 per farm. This was the highest average sales figure in the state. Suffolk's growing nursery and greenhouse products industry generated \$67 million in sales in 1987, an increase of 60 percent since 1982. Several hundred acres are devoted to each of the following crops in Suffolk: cauliflower, broccoli, pumpkins, spinach, and Chinese cabbage. More than 10,000 acres are devoted to potatoes, Suffolk's largest crop.

Since 1977, the strongest area of diversification has been in vineyard culture, primarily on the North Fork of Long Island. A number of the wineries have been producing quality vintages and have demonstrated a steady rise in productive value over the past several years. This has been a very positive development, as the value of production per acre is at the high end of market value.

Although there were more than 40,000 acres of farmland in Suffolk in 1987, there has been a steady decline in the volume of acreage devoted to agriculture. For example, farm acreage declined from more than 123,000 acres in 1950 to less than 90,000 in 1959 to only 61,500 in 1969 in the wake of massive suburban development. In effect, half of Suffolk's farm acreage was lost to farming between 1950 and 1969. During this period, Suffolk's population almost quadrupled, from 276,129 to 1,080,155.

In 1987, Nassau County contained 67 farms and 1,471 acres were devoted to agricultural activities. The market value of agricultural products sold in Nassau was \$3.4 million. Approximately half of all farms in Nassau were devoted to nursery and greenhouse crops in 1987. Nassau's sale of nursery and greenhouse crops exceeded \$1.5 million, almost half the value of total agricultural sales. Agriculture remains a significant source of jobs for Long Island residents. According to the 1990 Census, 13,783 Long Island residents were employed in farming, forestry, or fishing occupations, 5,202 in Nassau and 8,581 in Suffolk. In eastern Suffolk, 5 percent of the workforce was engaged in agriculture or fishing in 1990.

Part 2: Projections

Population and Labor Force Projections, 2000, 2010

Labor force projections for Nassau and Suffolk counties were derived by applying projected labor force participation rates to the projected population sixteen years of age and older in the years 2000 and 2010. The gross numbers were then adjusted to account for unemployment, multiple job holders, part-time workers and trends in commutation. The analysis produced an estimate of the number of workers who will be “available” to fill Long Island jobs in 2000 and 2010.

Population. The factors responsible for population change are births, deaths and net migration. In projecting future population levels, recent trends in fertility rates, death rates, immigration, and outmigration were analyzed and extrapolated into the future.

According to the Census Bureau, Long Island’s 1990 population was 2,609,000. This figure was adjusted upward by almost 60,000 persons to account for estimated census underenumeration, particularly in Long Island’s minority communities. Therefore, the 1990 population base used in the projections was 2,669,000. Projected fertility rates, death rates, and net migration suggest that Long Island’s population could grow at an average annual rate of 0.33 percent between 1990 and 2000 and 0.35 percent between 2000 and 2010. This would put Long Island’s population at about 2,757,000 in 2000, and 2,854,000 in 2010. Males are projected to number approximately 1,391,000 and females, 1,463,000 in 2010.

The Long Island population is expected to continue to age. Persons fifty years of age or older are projected to increase from 28 percent of the population in 1990 to almost 40 percent of the population in the year 2010. Persons below the age of twenty are projected to decline from 26 to 18 percent of the population during this period.

Labor Force. Projected labor force participation rates in the years 2000 and 2010, by sex, were applied to Long Island’s projected population sixteen-or-more years old in that period. Male labor force participation rates are projected to rise from 77.5 percent in 1990 to 77.9 in 2000 to 78.3 in 2010. This means that 78.3 percent of all males sixteen-or-more-years old are projected to participate in the labor force in 2010. This would reverse the recent trend toward declining male labor force participation rates. Male rates have been declining as more men have taken advantage of relatively generous pension benefits. However, in the next twenty years, it is anticipated that less generous pension benefits, coupled with the need to generate more of their own retirement funds, will induce men to work until older ages. Female labor force participation rates on Long Island are projected to rise from 57.5 percent in 1990 to 61.0 percent in 2000 to 64.0 percent in 2010. Women will continue to enter the labor force largely in response to greater economic pressures to work.

The projected labor force participation rates yield a Long Island resident

labor force of 1,680,000 in the year 2000 and 1,725,000 in 2010. However, not all of these labor force participants will be available to fill Long Island jobs. To derive the "available" labor force, a long-term unemployment rate averaging 5.5 percent annually was assumed for the 1990-2010 period and the projected labor force was reduced by 5.5 percent. It was also assumed that the incidence of dual job holding will be completely offset by the incidence of part-time employment so that no further adjustment is needed. Finally, projections of net commutation were subtracted from the projected labor force to derive the available labor force. In projecting net commutation, 1990 census journey-to-work statistics were used as a guide. In 1990, 77.5 percent of Long Island's resident labor force were employed within Nassau-Suffolk and 22.5 percent commuted to jobs elsewhere in the New York Region. They were partially offset by an influx of 98,000 workers who resided elsewhere in the New York Region but worked on Long Island. Thus, net outcommutation from Long Island was about 193,000. The proportion of employed Long Island residents who also work on Long Island is projected to increase from 77.5 percent in 1990 to 79.0 in 2000 to 81.0 in 2010, in response to the moderate growth of jobs on Long Island in the next twenty years. The ratio of reverse commuters to employed Long Island residents is projected to increase from 7.6 percent in 1990 to 8.5 in 2000 to 9.8 in 2010, in response to growing job opportunities in Long Island's service industries. These assumptions yield an "available" labor force of 1,390,000 in the year 2000 and 1,480,000 in 2010.

Long Island's resident labor force became more diverse during the 1980s. This process is expected to accelerate during the next twenty years. Minority groups and women will account for a larger share of Long Island's resident labor force. Their growing numbers will confront policy makers with the need to respond to their unique requirements for education, training, and family-responsive policies. Long Island's labor force will also become older and more experienced. This should result in improved worker productivity and greater profitability for Long Island firms.

Employment Projections, Strategic Industries, 2000, 2010

Long Island employment, by major industry, was projected for the years 2000 and 2010. Historical employment trends coupled with recent developments in specific industries were the basis for these projections.

The Outlook for Specific Long Island Industries

Construction. Residential construction is expected to be sluggish during most of the 1990s because of Long Island's aging population, the relatively large number of existing homes on the market, the scarcity of buildable land, and the need to protect sensitive environmental resources. Somewhat faster growth is projected between 2000 and 2010. Federal subsidies for moderate income or senior citizens housing could generate additional construction jobs. Federal funding to improve the energy efficiency of existing structures could also be a source of employment growth. New non-residential construction is

likely to remain on hold until the surpluses of retail, commercial and industrial space generated during the 1980s are absorbed. This is not likely to occur until relatively late in the 1990s. However, the need to repair or replace Long Island's aging infrastructure including its schools, streets, highways, bridges, sewers, and waste disposal facilities is likely to create new construction jobs, particularly after 2000.

Manufacturing. Long Island's manufacturing base is projected to contract during the 1990s and to grow only moderately after 2000. Although manufacturing industries predicated on emerging technologies already have a foothold on Long Island and are likely to develop marketable products by the late 1990s, the jobs created in these industries will probably not be sufficient to offset the downsizing of the defense sector before the year 2000.

The technologies in which Long Island possesses competitive advantages are advanced materials, electronics and information systems, future manufacturing systems, and the life sciences. Advanced materials such as ceramics offer high-temperature strength and corrosion resistance, characteristics needed in products used at very high temperatures. Low temperature superconductors have performance characteristics that will lead to the development of powerful magnets for medical diagnostics and for magnetically-levitated (Maglev) trains. New technologies relating to electronics and information systems include advanced semiconductor devices, digital imaging technology, high-density data storage, high performance computing, and optoelectronics. Advanced semiconductors offer improved speed, higher operating frequencies, reduced size, and multiple functions at lower cost. They will be used in products that require the significant use of electronics. Digital imaging technology, which uses digital technology to store, display, process, analyze, and transmit images, will be used in industrial processes in which the human eye or other detectors are currently used for inspection and monitoring. High density magnetic discs, which incorporate thin-layer technology, will provide steady increases in information density and will reduce the time needed to retrieve data from disks or tapes. High performance computing will make it possible to program large systems to perform complex tasks. Optoelectronics, the use of light to transmit, process, and store information, will have a major impact on chemical and mechanical manufacturing processes, medical diagnostics, and medical therapy.

Future manufacturing processes will be dramatically changed by artificial intelligence, flexible computer-integrated manufacturing, and sensor technology. Artificial intelligence, which incorporates knowledge-based control systems, will revolutionize the manufacture of machine tools and robots and the analysis of medical tests and symptoms. Flexible computer-integrated manufacturing will improve product quality and allow manufacturers to produce small lots in response to specific customer orders. This will ultimately lead to a much greater variety of product lines. New sensors that measure parameters more accurately in real time will have a

major impact on continuous process industries such as food and beverages, pharmaceuticals, and chemicals.

In the life sciences, advances in biotechnology will lead to the production of high value added biological products on a commercial scale. Target markets for this emerging industry include pharmaceuticals, foods, flavors and fragrances, agricultural chemicals, and pollution abatement. Advances in medical diagnostic technology, including cellular-level sensors, medical imaging, targeted pharmaceuticals, and fiber optic probes, will make it possible to detect defects at the cellular level and to minimize trauma during diagnosis and treatment.

Long Island already possesses much of the infrastructure needed to commercialize new developments in these fields. The Center for Biotechnology at SUNY at Stony Brook, one of the state's Centers for Advanced Technology, provides an important link between life science researchers at Stony Brook and the area's growing biomedical industry. The Center's Seed Grant Program invests more than \$500,000 annually in innovative research projects with demonstrable economic potential. The new Long Island High Technology Incubator on the Stony Brook campus gives start-up biotechnology companies access to affordable laboratory space, research equipment, and business assistance. The newly formed Long Island Research Institute, a partnership between SUNY at Stony Brook, North Shore Hospital, Cold Spring Harbor Laboratory, and Brookhaven National Laboratory, will be a vehicle for faster commercialization of the new technologies originating in these institutions. The College of Engineering and Applied Sciences at Stony Brook is planning to sharply increase its role in technology transfer through its Advanced Manufacturing Initiative. The purpose of the Advanced Manufacturing Technology Initiative is to create a self-renewing resource that will assist companies in making the transition to the "agile" manufacturing environment of the twenty-first century.

However, Long Island is only one of many areas that are competing for high-technology activities. Therefore, it may achieve a certain threshold level of jobs from which growth can proceed in only a limited number of these technologies. Moreover, small entrepreneurial businesses generate relatively few jobs at the outset. Therefore, although some of these technologies are likely to take hold on Long Island during the 1990s and beyond, the employment they generate is not likely to offset the loss of defense manufacturing jobs until after 2000.

Transportation, Communications, Utilities. Segments of the transportation industry, notably trucking and warehousing and transportation services, show good growth potential. Within communications, cellular phone and fax communications are growing industries. The movement of cable companies into information systems will also generate jobs. However, the communications industry is highly cost competitive and has become increasingly dependent on labor-saving technology. This will tend to offset employment gains in some of the expanding communications industries. For

utilities, the need to solve solid waste disposal problems and to develop alternative energy sources will create new jobs during the 1990-2010 projection period.

Retail Trade

During the late 1980s and early 1990s, Long Island lost several well known retailers who were, in turn, supplanted by major nationally-based discounters. These retailers are highly efficient and price competitive. To some extent, they are taking market share from existing retailers, particularly those located in some of Long Island's older central business districts. Also a factor is the growing interest in home shopping. Because of this situation, projected retail growth for the 1990-2010 period is likely to be more modest than during the 1980s. In addition, full-time retail workers are likely to be supplanted by part-time workers. The trend toward efficiency and price competitiveness has become a permanent fixture of the retail sector. At the low and middle end of the market, less efficient retailers will continue to lose market share. However, upscale retailers, who compete not on price but on quality, style, and customer service, will continue to do well because of Long Island's high level of disposable household income.

Finance, Insurance, and Real Estate. In the next two decades, banks and insurance companies are projected to assume new functions and to diversify into innovative types of financial services. These will include so-called non-interest or fee-based products such as mutual funds and annuities. These products will provide supplemental income to banks whose earnings have traditionally come from interest on loans. The job growth generated by these new products will be somewhat offset by the proliferation of automatic banking and electronic funds transfers which will tend to limit employment growth. Within real estate, the fastest employment growth will be in the area of property management and other real estate services.

Services. The service industries show the strongest potential for employment growth during the projection period. There will be a growing need for health care services as Long Island's population ages. New medical procedures and treatments and the likelihood that the federal government will guarantee basic universal health care will also increase the demand for health care workers. However, such guarantees will be accompanied by cost containment efforts. On balance, health care employment will continue to expand, albeit at a slower pace than in the recent past. Moreover, the direction of growth is likely to change with more resources devoted to preventive care and fewer resources to specialized care.

The business services industry is expected to expand strongly during the projection period. Temporary personnel agencies, consumer credit reporting agencies, firms providing mailing, reproduction and stenographic services, firms providing building maintenance services, equipment rental and leasing firms, firms providing computer programming and related services, and firms providing security and protective services should do particularly well.

Professional services, notably legal, engineering, and management services, also have good growth potential. Just as Long Island “exported” sophisticated defense products during the 1980s, it is likely to “export” a variety of professional services to clients located nationally and even internationally during the projection period.

Government. The growth of government employment is likely to be extremely slow during the projection period. Revenue constraints will encourage privatization of some governmental activities and consolidation of others. Consolidation of some local school district functions is likely. Job growth in local government is likely to be confined to agencies that help the disadvantaged, promote industrial retention and economic development, and build or maintain public facilities.

Based on these trends, a total of 1,370,000 jobs are projected for the year 2000 and a total of 1,488,000 jobs are projected for 2010. This compares with estimated employment of 1,362,000 in 1990 and 1,276,000 as of June 1993. Both current employment estimates and projections of future employment include estimates of self-employed persons on Long Island. The Long Island labor market lost an estimated 86,000 jobs between 1990 and June 1993. It is unlikely that these jobs will be regained until late in the decade. These projections suggest that there will be a net gain of only 8,000 jobs on Long Island between 1990 and 2000, followed by a gain of 118,000 jobs between 2000 and 2010.

Projected slow growth during the 1990s reflects the fact that the current recession is more a product of the basic structural realignment of Long Island’s economy than of the effects of a normal cyclical downturn. Such structural changes require an extended period of time because new technologies must be incorporated into the workplace and the workforce must be trained and retrained to utilize these technologies. Only then can a new round of entrepreneurial development and economic growth begin. There are also unique factors that will tend to inhibit employment growth on Long Island during the 1990s. The Long Island economy is a relatively mature economy. As a result, the market for many products and services is approaching saturation. Therefore, the explosive job growth of the 1980s is no longer possible even under the best of circumstances. The national economic environment will also limit Long Island employment growth in the short-run. The urgent need to reduce the federal budget deficit has generated a combination of tax increases and declines in federal entitlement and other benefit programs. In the short run, this will siphon purchasing power from the economy thereby limiting employment growth. It is important to note that slower job growth during the projection period is not likely to lead to chronically higher unemployment rates on Long Island. In the year 2000, a projected labor force of 1,390,000 will be available to fill a projected 1,370,000 jobs. Thus, the balance between projected labor force and projected jobs is relatively close. It becomes even closer in 2010, when a projected labor force of 1,480,000 will be available to fill a projected

1,488,000 jobs.

Although it is unlikely that overall labor force shortages will constrain employment growth during the projection period, selective labor force shortages in specific occupations are a real threat. Future job growth will be concentrated in relatively sophisticated, technologically-oriented manufacturing industries and in those professional, business, and health services that require advanced training. However, much of the projected growth of Long Island's labor force will result from greater labor force participation by women and minority groups, including recent immigrants. These labor force groups remain overrepresented in declining blue-collar occupations and in low-paying administrative support and service occupations. One challenge facing Long Island's educational institutions will be to educate and train these workers for future Long Island jobs.

The future Long Island labor market will be markedly different from that of the 1980s. The 1990s will be a period of structural transition. Recovery from the current recession will be slow. A new round of entrepreneurial development and economic growth will be predicated on the incorporation of new technologies into the workplace, and the training, retraining, and reorientation of the labor force to fully utilize those technologies.

Industrial Projections

As the foregoing projections indicate, future manufacturing growth will occur in industries that utilize emerging technologies in fields such as advanced materials, superconductors, high performance computing, optoelectronics, artificial intelligence, biotechnology, and medical diagnostic technology. These types of industries produce high value-added products. However, they do not generally have the extensive space requirements of defense firms and of other manufacturers that utilize long production lines. Therefore, Long Island currently has sufficient industrial space to accommodate projected manufacturing growth through the year 2010. However, much of our existing industrial space consists of older buildings which are becoming increasingly obsolete. Given the high cost of renovating older buildings, future manufacturers might well opt to build new buildings specifically tailored to their specific needs.

An analysis of the past rate at which industrially-zoned land was developed is useful in forecasting future development trends. Between 1979 and 1984, 845 acres were developed for industry. This was equivalent to an average of 169 acres per year. From 1984 to 1990, 1,464 acres were developed for industry. This was equivalent to an average of 244 acres annually.

In the future, development of industrially-zoned land will proceed at a much slower pace. The expectation is that the current glut of available industrial space—more than 18 million square feet—will not be absorbed until late in the decade. Therefore, it seems likely that an average of only 100 to 150 acres of industrial land will be developed per year during the projection period. Even at the pace of 150 acres per year, Long Island's

15,000 acres of industrially zoned vacant land and farmland would allow for a century of continuous industrial growth. The 2,200 acres of reusable industrial land would be an additional fifteen-year supply. If the pace of development dropped to a more realistic 100 acres per year, there would be a 170-year supply available.

Projected Highway Needs

Both passenger and commercial vehicle registrations on Long Island have grown steadily over the years. The length and weight of trucks permitted on our major routes have increased as well. According to the New York Metropolitan Transportation Council, commercial vehicle registrations are expected to grow by 142 percent between 1985 and 2015.

Approximately 7.7 percent of Long Island highways have major capacity deficiencies. It has been estimated that just to maintain the current level of infrastructure and capacity deficiencies would require \$2.1 billion between now and 2000.

Projected Office Space Needs

Approximately one-third of all persons in office-type jobs on Long Island worked in major office buildings in 1988. At the end of 1992, there were an estimated 36,352,000 rentable square feet of space in major office buildings on Long Island. Major office buildings are defined as corporate office buildings of at least 15,000 square feet.

It is projected that 126,000 jobs will be generated on Long Island between 1990 and 2010. Approximately 70,000 of these will be office-type jobs. One-third of the office-type jobs, approximately 23,000, are likely to be located in major office buildings. At a ratio of three employees per thousand square feet of office space, approximately 7.7 million square feet of major office space will be needed to house those additional employees.

At the end of 1992, an estimated 7,000,000 square feet of space in major office buildings on Long Island was vacant. This was equivalent to an 18 percent vacancy rate in Nassau and a 22 percent vacancy rate in Suffolk.

For purposes of analysis, vacancy rates of 10 percent and 20 percent in major office buildings were assumed. With a vacancy rate of 10 percent, which is equivalent to an occupancy rate of 90 percent, approximately 3.6 million square feet of the projected 7.7 million square feet needed to accommodate future office jobs would come from existing major office buildings. At the end of 1992, 764,000 square feet of major office space was under construction on Long Island. Therefore, even at a 10 percent vacancy rate, which is relatively low, 3.7 million square feet of major office space would be needed on Long Island through the year 2010 to accommodate projected office-type jobs. With a 20 percent vacancy rate, which is equivalent to an occupancy rate of 80 percent, an additional 9.0 million square feet of additional office space would be needed by 2010.

Conclusion

This review of the current status of the Long Island economy and the projections of where the economy will be headed between now and the year 2010 is predicated on a positive outlook —albeit a conservative one. However, there must be a concerted effort and direction to alleviate the Island's shortcomings in high taxation, high energy costs, limited transportation, lack of balanced affordable housing, and negative business climate if even this modest outlook is to be achieved. The second part of this article, to be published in Fall 1994, discusses a set of plans, programs, and governmental responses that can insure the implementation of a sound strategic economic development posture for Long Island.

Long Island Country Houses and Their Architects: 1860-1940

By Robert B. MacKay

Editor's note: We thank the Society for the Preservation of Long Island Antiquities for permission to publish Robert B. MacKay's introduction to the definitive book on the Island's great estates (forthcoming from W. W. Norton).

The arrival of the SS *Berengaria* in New York Harbor, on 29 August 1924, signaled the beginning of a celebration unequaled even in the excessive annals of the nation's leading playground. "Here He Is Girls—The Most Eligible Bachelor Yet Uncaught," heralded a New York tabloid as H.R.H. Edward, Prince of Wales, stepped aboard the yacht *Black Watch* which would carry him on the last leg of his journey to Long Island's North Shore. The *raison d'être* for the Prince's visit was the international polo matches of 1924 between Great Britain and the United States, the first since World War I, and Long Island was prepared for the occasion. The James A. Burdens had turned over Woodside, their Syosset estate, to the prince, whose whirlwind of social activities over the next fortnight on what F. Scott Fitzgerald would describe as that "slender riotous island" made a deep impression on the future Edward VIII. "Compared to the creature comforts Americans took for granted, the luxury I was accustomed to in Europe seemed almost primitive," he noted in his memoirs. "My American hosts spared no expense in demonstrating the splendor of a modern industrial republic." For this member of the royal family, America was a country "in which nothing was impossible," and, he reported, "Long Island did nothing to disabuse me of this conception."

Indeed, Long Island could not have dissuaded the Prince, so great and apparent was the concentration of wealth. Of the fifty captains of finance and industry profiled by B. C. Forbes in his 1917 best seller *Men Who Are Making America*, twenty-one either resided on Long Island for part of the year or had children who maintained country houses east of the city line. Twenty years later, Ferdinand Lundberg's Depression-era diatribe *America's 60 Families* charted an even greater concentration. Fourteen of the nation's twenty-five richest families could be linked to Long Island. The names of these captains of industry and finance read like a chronicle of American economic history: J. P. Morgan, William K. Vanderbilt, William Randolph Hearst, Russell Sage, Vincent Astor, Pierre Lorillard, F. W. Woolworth, Otto

Kahn, Walter P. Chrysler, Harry Payne Whitney, W. R. Grace, Marshall Field, Alfred I. and Henry F. du Pont, Marjorie Merriweather Post and her husband Edward I. Hutton, Louis Comfort Tiffany, the sons of Andrew Carnegie's partners, Henry Phipps and Henry Clay Frick, and sons of Henry Ford, Thomas A. Edison, Charles Pratt, Meyer Guggenheim, and Jay Gould all resided on Long Island.²

Between the Civil War and World War II, more than nine hundred estates were created from the city limits to Montauk. "Country homes, with their mile-long driveways are continuous for a hundred miles," reported the *New York Herald* in 1902; "Long Island is rapidly being divided up into estates of immense acreage...beyond all precedent of American country life." It was the "density of the millionaire population" that astonished the *Herald*; "Nowhere else, certainly in America, possibly the world, are to be found so many great landed estates in any similar area." The *Brooklyn Daily Eagle* commented that Long Island had been "touched by magic, a new version of the Sleeping Princess" and the accolades were to continue for decades. As late as 1946, *Life* called the region "the most socially desirable residential area in the United States," and *Holiday* reported two years later that "while time is making some changes" it was clear that the "estates of Long Island's North Shore are close to an American ultimate in elegance, exclusiveness and display."³

What made this phenomenon all the more remarkable was that as late as the 1870s and 1880s Long Island had been relatively unknown as a watering spot, unmentioned in the guide books that extolled the merits of such nationally known resorts as the Jersey Shore, Newport, and the Adirondacks. "Dreary sandy wastes" was its popular image as we learn from Theodore Roosevelt's friend Joseph Choate. Tile Club artists thought of visiting its eastern extremities because "nobody goes there," and as late as the 1890s, the architect Robert Gibson lamented that "so few people know the North Shore."⁴

This introduction examines the reasons behind the rise of the Long Island estate phenomenon, which reached its zenith in the decades before World War I and whose origins can be traced to the third quarter of the nineteenth century. Also to be explored is the impact of the estate phenomenon on Long Island's way of life and economy, the estate planning process, and some of the statistical results of the Society for the Preservation of Long Island Antiquities' computer-assisted survey of Long Island country houses built between 1860 and 1940 that appears in the Appendix.

Why Long Island?

To late twentieth-century developers of projects such as Mexico's Cancun resort, planning has become a computer science in which key factors such as location, climate, transportation links, the availability of labor, and proximity to urban areas can easily be quantified. Long Island met all of the criteria favorably, as did many other nineteenth-century watering places, but its development as the national resort was due to a series of overwhelming additional advantages. These included ease of access to the nation's social,

economic, and media capital, the development of recreational pursuits for the leisure class, and a collateral movement that proceeded apace, namely, the founding of clubs around these sporting interests.

Although Long Island had been a seasonal retreat since the seventeenth century, when such early New York notables as Governor Thomas Dongan and Mathias Nicoll established estates in what is now Nassau County (also the site of one of the nation's first resort hotels, the Marine Pavilion [1833-1864] at Far Rockaway, frequented by such luminaries as Longfellow and Washington Irving), it was the beginning of the construction of the Long Island Railroad in 1834 that presaged the first advantage. Originally conceived as a direct route from New York to Boston via steamers from Greenport to Stonington, Connecticut, and then to Boston by rail, the railroad was forced to focus on its hinterlands when a competing line marshaled the technology to bridge Connecticut's rivers fifteen years later.⁵

The decision of the LIRR to build stations and spurs sparked the summer colony movement. While steamships serviced many Long Island towns, the vessels were seasonal at best and had trouble running on schedule. The surviving papers of the Swan family, among the earliest summer colonists at Oyster Bay, indicate that the railroad was the preferred means of travel, with steamers used primarily to transport freight. So rapid was the speed of rail travel that, according to notes made by Caleb Swan in 1855, the trip from the depot nearest Oyster Bay to his lower-Manhattan residence took only about twenty minutes longer than today's commute, although Swan crossed the East River by boat and then traveled downtown on a horse-drawn omnibus. With each extension of the railway, another section of Long Island developed as a resort. For example, the construction of a spur from Hicksville to Syosset in 1854 greatly facilitated the establishment of a summer colony at Oyster Bay by members of Manhattan's Union League Club, while Glen Cove's popularity with a coterie of Brooklyn's elite burgeoned after a line reached that town in 1867. The extension of the South Side Railroad to Patchogue in 1869, the completion of the Port Washington line in 1898 and its electrification fifteen years later, and the completion in 1910 of the East River tunnels providing direct service to Manhattan's Pennsylvania Station were other milestones in the litany of progressive rail improvements.⁶

Long Island's transportation advantages continued to build in the early years of the automobile age with the completion of the East River bridges. The Queensboro or 59th Street Bridge (1909) was particularly important because it dramatically shortened the trip from midtown Manhattan to the North Shore via Routes 25 or 25A. For those heading to the south and east it also connected easily to William K. Vanderbilt, Jr.'s new Long Island Motor Parkway, the first limited-access highway. Commissioned in 1906, the parkway counted many Long Island estate owners among its stockholders. Writing in *Harper's Weekly* in 1907, A. R. Pardington, the parkway's chief engineer, foresaw that the completion of the Queensboro Bridge would allow executives to commute by automobile a generation before Robert Moses's

parkway system, and more reliable automobiles would make this a reality for thousands of New Yorkers:

Think of the time it will save the busy man of affairs, who likes to crowd into each day a bit of relaxation. He will leave downtown at three o'clock in the afternoon, take the subway to a garage within striking distance of the new Blackwells Island-East River Bridge. In twenty minutes a 60 horse-power car will have him at the western terminus of the motor parkway. Here a card of admission passes him through the gates, speed limits are left behind, the great white way is before him and with throttle open he can go, go, go and keep going fifty, sixty, or ninety miles an hour until Riverhead or Southampton is reached.⁷

For those who found the wicker-seated private club cars of the LIRR too slow and long-distance travel by "motor" uncomfortable or unreliable, Long Island's protected waterways facilitated the ultimate method of accessing one's country estate—commuting by yacht. The *New York Herald* reported in 1902 that "an enormous fleet of private yachts" regularly plied the waters of Long Island Sound to "carry owners at racing speed twice a day from their great estates to the wharf on Manhattan Island nearest their offices." The seasonal phenomenon in which conventional steam yachts were first employed soon gave birth to a whole class of yachts known as "commuters" or "business boats." Given a boost by the development of the high-powered combustion engine for World War I aircraft, these commuting yachts achieved speeds of between thirty and fifty knots by the 1920s, whisking their city-bound owners to Wall Street in an hour's time from estates thirty miles distant. Due to the compactness and reliability of the new engines, economies were achieved in boat length and crew size, which brought this method of commuting within the reach of most estate owners, many of whom apparently considered it a prerequisite of country life. The surviving building records for Wilton Lloyd-Smith's Lloyd Neck estate, designed by Bertram G. Goodhue, are interspersed with invoices for *Argo*, his sixty-foot commuter, which was being constructed simultaneously.⁸

This mode of commutation reached its peak in popularity between the World Wars, becoming the preferred way to get to work for such captains of finance as Walter P. Chrysler, J. P. Morgan, George F. Baker, Jr., Nelson Doubleday, Otto Kahn, Marshall Field, and the Pratt brothers. Toward the end of this period some of the more adventurous, including Tommy Hitchcock, the famous polo player, turned to sea planes, winging their way to Wall Street under and over the great East River bridges along the business-boat route.

Collectively, these travel advantages to Manhattan by rail, road, and water, coupled with the comparative nearness of most of Long Island's estate country vis-à-vis such long-established watering places as the Jersey Shore and Hudson River Valley (not to mention the distant resorts of Newport and Bar Harbor), made Long Island the ideal choice of Pardington's "man of affairs." Here was a place where one could experience country life without

losing contact with developments in the city and office. The South Shore summer colony historian, Momette Broderick, has compared the LIRR's importance to those communities as that of an umbilical cord. Unlike Newport, which was a place to be seen (an extension of its resort hotel origins which, Ada Louise Huxtable reminds us, were stage sets for the ritual of "flirtation, promenade, and social gamesmanship"), Long Island was always more a place to be experienced than to be seen. Nor was Long Island ever to offer the retreat from realities that Fisher Island provided the very rich between the World Wars, nor to become a gathering place for intellectual and artistic enclaves akin to Edith Wharton's Lenox, despite the presence of figures like William Cullen Bryant, William Merritt Chase, and Bret Harte. Complementing its convenient access to Manhattan, Long Island also possessed an ample and varied topography perfectly suited for well-heeled America's new experiment in country living. Carefully chronicled from 1901 to 1942 by the magazine *Country Life* (published on Long Island by Doubleday's Country Life Press) and influenced by English pastimes, the movement stemmed from the development of American recreational pursuits and the associated creation of a new form of sodality—the founding of clubs around these sporting interests. In some ways, Long Island had always been a focus of sporting activity. In 1665, Governor Richard Nicolls laid out on the Hempstead Plain what is generally considered to have been the country's first formal race course, and presented a trophy to the winner of a race for the purpose of "encouraging the bettering of the breed of horses," thus establishing the region as a center for thoroughbred racing.⁹

Long Island tracks were to gain their preeminence in this sport, however, in the early decades of the nineteenth century. Milestones in the establishment of that hegemony were the opening of the Union Course just west of Jamaica in 1821, the first "skinned" or "naked soil" race track in America; the great North-South match races before the Civil War; the Belmont Stakes, established in 1867 and named for their creator, August Belmont (1816-1890); and the opening of the Sheepshead Bay Course in 1890, Aqueduct in 1894, and in 1905 Belmont Park, home of the American Derby. By the 1920s, the last-mentioned tracks held every American course record from seven furlongs through two miles, not to mention purse records.

Other sporting pastimes for which the region had been famous from virtually the onset of European settlement were angling and fowling. It was not insignificant that the 1664 deed by which Tobaccus sold land to the Setauket settlers granted "the liberty for fishing, fowling and hunting." Positioned astride the Atlantic flyway, Long Island teemed with both wild and water fowl while boasting some fine trout streams. The first series of sporting lithographs in American—Currier & Ives, drawn by artist Frances F. Palmer—depicted Long Island hunting scenes, and, not surprisingly, the region's first ornithological guide, J. P. Giraud's *Birds of Long Island* (1844), was written with the sportsman rather than the naturalist in mind. Giraud's intent was to place "within the reach of gunners, the means of becoming

more thoroughly acquainted with the birds frequenting Long Island,” for he felt “no portion of our country, of the same extent, is richer in resources for the student of Natural History, or more inviting to the sportsman than this garden of the middle districts.”¹⁰

Among the important persons to discover the garden in the early decades of the nineteenth century was Daniel Webster, whose catch of a record trout at the Mill Pond on Carmans River in 1827 is depicted in the Currier & Ives 1854 print titled *Catching A Trout 'We Hab You Now, Sar.'* Webster subsequently secured fishing rights along a portion of the river, both for his use and for that of a group of friends, including future president Martin Van Buren, the railroad pioneers John and Edmund Stevens, diarist Philip Hone, and Walter Bowne. This group is considered to have been the forerunner of the Suffolk Club, organized in New York City on 6 April 1858 by August Belmont in concert with Watt Sherman, W. Butler Duncan, and others. The Suffolk Club acquired a 1,500-acre preserve along the river and built a three-story club house in which each of the fifteen members had rooms. The Suffolk Club can lay claim to being the region's first formally organized sporting club with grounds, facilities, and a nonresident membership. What happened next—the natural extension of the creation of sporting clubs—would quickly become a Long Island phenomenon. Perhaps seeking better accommodations than the club offered, and certainly realizing he would be able to facilitate his interests both in field and stream and turf and field, Belmont in 1864 acquired 1,100 acres in nearby North Babylon to start a stud farm and build a mansard-roofed country house of twenty-four rooms designed by Detlef Lienaeu. The construction of country houses on Long Island based entirely on sporting rather than agricultural or ancestral *raison d'être* had begun. (The exceptions to this rule almost can be counted on one hand, and included a few rusticators, like the panorama artist John Banvard who constructed Glenada, a castellated mansion in 1853, and William Cullen Bryant, who had discovered Roslyn Harbor as early as 1845.¹¹)

The death in 1861 of Liff Snedecor, proprietor of a popular Oakdale hunting lodge, led to the creation of the South Shore's second sporting club of consequence, incorporated in 1866. Membership in the South Side Sportsman's Club soon became the impetus for the estate development of the South Shore from Babylon to Quogue. So profound was its influence that even in the 1990s maps of this area show that virtually all of the surviving open space is comprised of the former estates of South Side members, including those of the Singer sewing machine magnate Frederick Bourne (now La Salle Military Academy); William K. Vanderbilt (now Dowling College); Bayard Cutting (now Bayard Cutting Arboretum); Henry B. Hyde (now Southward Ho Country Club); Harry Peters (Twyford); and August Belmont (now Belmont State Park), while the club itself is now the Connetquot State Park.

Spurred on by another new recreational interest, “Corinthian” or amateur yachting, which was then coming into vogue in England, estate development

proceeded apace on Long Island's North Shore. Here the retreat of the last ice age had carved deep harbors out of the glacial moraine, offering some of the finest protected anchorages on the Eastern seaboard. In short, ideal conditions for the nurturing of the new sport, many of whose adherents were collegians and young men who considered it a "matter of personal pride to scrape, paint, rig, and sail their own boats, the races being local and informal."¹²

This activity stood in marked contrast to the professional stake races and yacht club regattas of the time, in which owners considered it below their dignity to assume command of their own vessels. In Hempstead Harbor the first amateur yachtsmen were part of William Cullen Bryant's circle, including his son-in-law, Parke Godwin, and Thomas Clapham, heir to a British fortune. The latter's granite villa Stonehouse, completed in 1868 to designs by Central Park architect Jacob Wrey Mould, was the first country house on a grand scale in this area of the North Shore. Clapham, who was to become a noted designer and builder of small yachts, and the Roslyn contingent competed in races at Oyster Bay (the next harbor to the east), which had become a center of amateur sailing activity in the 1860s. The sons of a number of wealthy New York families who "hired" houses for the season at that quiet watering spot, the ancestral home of the influential Townsend, Weeks, and Underhill families, avidly participated in the informal sailing contests. In 1872 they organized the Seawanhaka Corinthian Yacht Club (roughly translated, Long Island Amateur Yacht Club), which hosted the nation's first open amateur regatta and became a leading force in the development of amateur sailing. However, ashore, the new club's most discernable impact was on the area's real estate values. Seawanhaka's decision to build a clubhouse on Centre Island in Oyster Bay in 1892 encouraged nine of its members to build mansions there by 1912. In the general vicinity of Oyster Bay, more than thirty members had built houses by 1932, following their election to the club. While it is impossible now to determine the exact motivation of each mansion builder, it is evident that this yacht club and others that soon followed, such as the Manhasset Bay Yacht Club (1891), the Huntington Yacht Club (1911), and the Penataquit-Corinthian Yacht Club at Bay Shore, had a similar impact on their environs, as dozens of affluent urbanites began to see the advantages that Long Island's protected waterways held for the new pastime of amateur sailing.

And if Long Island beckoned to the sportsman and yachtsman, the equestrian was not far behind, soon reestablishing the eighteenth-century pastime of fox hunting in the region. Meeting at the Garden City Hotel in 1877, the Queen's County Hounds are thought to have been the first organized pack of drag hounds in the United States, while the Rockaway Hunt Club (1878) can lay claim to being America's oldest such organization in continuous operation, edging out the Meadow Brook Club by three years. So many disputes over hunting boundaries occurred between Rockaway and Meadow Brook that in 1893 an agreement was reached dividing present-day Nassau County on a line between Rocky Point Beach and Mineola. The

competition between the rival clubs continued into the new sport of polo, introduced into the United States in 1867 and in full swing on Long Island in the early 1880s. Meadow Brook, aptly dubbed the "Heart of American Polo," was to boast eight fields (each larger than seven football fields) by the early decades of the new century, including the International Field where forty thousand spectators would crowd into the sky blue grandstands for matches against the British and Argentines.¹³

Of the twenty-one Americans to play against Great Britain in the dozen international matches held between 1886 and 1939, all but a few were Long Islanders who, by the outset of World War II, were playing on some twenty-eight fields. Coaching, the steeplechase (a course for which Rockaway had laid out as early as 1882), *gymkhanas* (an equine field day), hunt meets, and, of course, horse shows including such nationally prominent fixtures as the North Shore and Piping Rock shows, rounded out Long Island's equestrian events. However, for those who preferred the less strenuous pursuit of trail riding, the Country Lanes Committee maintained a vast network of carefully marked trails, lanes, fields and unpaved roads stretching almost the length of Nassau County from Hempstead Harbor east to Cold Spring Harbor and accessed by "Westbury Gates," which could be opened from the saddle by levers. Long Island was simply "a paradise for equestrians," as *Country Life in America* remarked in 1913. "Everyone rode, hunted, or played polo and fairly lived out of doors," Rockaway's ten-goal polo ace and steeplechase champion Foxhall Keene recalled in his memoirs: "Sunday morning you would see thirty or forty men riding over the countryside larking over fences and having a wonderful time." Even the meeting of trains became an equine event. "The display of blooded horses and elaborate turnouts" at the new depot in Glen Cove impressed a *Brooklyn Daily Eagle* reporter, who wrote, "It has become the correct thing for the cottagers to drive to the station and meet the members of their families or expected guests, and it is not unusual to see a party of eight drive to meet one new arrival." For the well-heeled whose conception of country life was synonymous with owning horses, central Nassau County and, particularly, Westbury and its environs had become the chosen retreat. By 1910 as many as sixteen of the people listed on Meadow Brook's polo roster at the turn of the century had built mansions in the vicinity.¹⁴

Golf, introduced to America in 1888 at Yonkers, found its model for emulation when Southampton's Shinnecock Hills Golf Club (1891-92) became the first professionally designed course in America to be built in conjunction with a clubhouse. By the early 1890s the sport was played at Rockaway, Seawanhaka Corinthian Yacht Club, and Meadow Brook, site of the first USGA Women's Amateur Championship in 1895. New clubs formed around this pastime, including the Oakland at Bayside (1896), the Nassau Country Club at Glen Cove (1899), the Garden City Golf Club (1899), and the National Golf Links at Southampton (1907), site of the first Walker Club in 1922, were to have a major role in the development of their environs as resorts.

Tennis, first played in this country at Staten Island in 1874, was popular

on Long Island by the late 1870s, with nets a common sight on estate lawns. From the day in 1914 that the West Side Tennis Club's grass courts were hauled by horse-drawn carts from their former site near Van Cortlandt Park in the Bronx to Forest Hills, Long Island could lay claim to being the American capital of that sport, as well. The U.S. Open matches were first held on the transplanted courts in 1915, and the first great tennis arena, the 13,000 seat Forest Hills Stadium, was completed in 1923.

The list of games the sporting gentry engaged in ran the gamut from pursuing imported European hares with foot hounds (Locust Valley's Buckram Beagles) to bicycle polo (an attempt to play the game with automobiles proved short lived). Even aviation was regarded as a gentrified pursuit; the New York Aeronautic Society had facilities in Mineola as early as 1909, while the Long Island Aviation Country Club, with a clubhouse and field at Hicksville, flourished between the World Wars.

By the close of the first decade of the twentieth century, Long Island was the cradle of many of the nation's nascent recreational pursuits, a great national playground where grand prix sporting events often took place concurrently. For instance, those here for "the season" in 1910 and 1911 might have seen polo's "Big Four" (Harry Payne Whitney, Devereux Milburn, Sr., and the Waterbury brothers) take on the British for the Westchester Cup; witnessed aerial acrobatics and a new world altitude record (9,714 feet) at the first International Air Show at Belmont Race Track (August Belmont, Jr. was an early patron of aviation); thrilled to *Dixie IV's* successful defense of the British international Trophy (Harmsworth Trophy) in front of the fashionable Beaux Arts Casino on Huntington Bay, in which August Heckscher's speedboat edged out the Duke of Westminster's entry at speeds in excess of forty mph; heard some of the world's greatest drivers tune up their engines at Robert Graves's novel garage-hotel in Mineola before putting their "motors" to the test in the Vanderbilt Cup Races; watched Sweep, from the Turf and Field Club, as she swept the Belmont stakes; observed the spectacle as the New York Yacht Club's *Squadron* set sail with the America's Cup candidates from its station on Hempstead Harbor; or viewed one of the myriad club-sponsored horse shows, hunt meets, dog shows, or other sporting events.

"Club life," as *Harper's* was to observe as early as the 1880s, had become "an interesting feature of the region" which was having "an important influence in developing its prosperity." The 1916 edition of the directory *Prominent Residents of Long Island and Their Pleasure Clubs* listed seventy-one clubs east of a line between Jamaica and Flushing Bay "whose members participate in Fox Hunting, Polo, Racing, Golf, Tennis, Aviation, Yachting, Fishing, Hunting, etc." Moreover, every time a club would throw open its grounds for a challenge cup, race, or show, the Brooklyn and New York press were there to herald the success of the event, positive coverage being assured by the presence of their publishers among the membership and participants.¹⁵

The publicity accelerated interest in Long Island's playgrounds and estate

development intensified as speculators saw an opportunity for profit. By the eve of the first World War, L'Ecluse, Washburn & Co., the Manhattan realtors, advertised as "club specialists...particularly well informed" about estates in the neighborhood of a list of well-known clubs. Dozens began to speculate in estate country real estate, including a few country house owners like Paul D. Cravath, the principal of the Manhattan law firm that still bears his name. Described in his firm's history as "an extrovert with unbounded determination and self-confidence," Cravath became a major booster of the North Shore and Locust Valley in particular, helping to create not only the clubs, but the entire infrastructure needed to support the country life experience. Cravath's hand is seen in almost every detail of Locust Valley life just after the turn of the century. He led a successful petition drive to create the local fire district in 1909, a critical development in the sporting gentry's fire insurance picture; advanced recreation by managing the region's largest horse show, and served as the catalyst in the founding of the Country Lanes Committee in 1912, which preserved and maintained hundreds of miles of equestrian trails across the North Shore. Cravath also furthered the incorporated village movement that gave the estate owners both zoning and police powers, the essential instruments for neighborhood preservation, and was a factor in the development of two clubs: the Piping Rock Club in 1911 and The Creek in 1923. Of the Piping Rock Club, *Country Life* quipped, "the sort of thing George Washington would have built if he had the money." Cravath established The Creek on the grounds of his first estate after his house had twice burned, reportedly after a dispute with the contractor. No doubt, Cravath was also instrumental in introducing his clients both to Long Island and club life; among those to whom the Cravath Syndicate sold property was the insurance magnate, W. R. Coe.¹⁶

With the passage of time, and particularly after the inflationary period that followed World War I, the growth of recreational clubs began to slow down. A 1919 scheme hatched by Reginald C. Vanderbilt to create "a completely equipped country club of the most comprehensive sort" on Lloyd Neck, mixing links with riding, polo, bathing, and tennis facilities, never reached fruition despite publicity and a distinguished board of governors which included C. K. G. Billings, E. D. Morgan, Harry Payne Whitney, and William R. Coe. Lloyd Neck was thirty-seven miles from the Queensboro Bridge by the route taken in 1919, and a dozen miles east of the greatest concentration of links. Desirable locations for clubs within easy reach of the city were fast disappearing. Nor did club projects fare any better where real estate speculation was the primary motivation. A 1925 plan to establish a country club on the Centre Island estate of the late Colgate Hoyt, in which "Founders, a representative group of Men" were sought for a subscription of \$1,000 to form a holding company which would delegate the task of forming a membership to a committee, failed. W. Emlen Roosevelt, a prospective founder, writing to club organizer and Oyster Bay realtor, Mrs. Percy S. Weeks, in May of that year declined an invitation to join, noting that he was

already “a member of two golf clubs” and “if I had another club, I would not play any more golf, but it would cost me more per game.” “From another point of view,” Roosevelt concluded “I do not care at the present time to go into a real estate speculation on the property.”¹⁷

Long Island had reached its saturation point for new clubs by World War I, for only a handful, like Locust Valley’s Creek Club and the Deepdale Golf and Country Club, succeeded after this period.¹⁸

Estate Planning: “One Half for the Pudding, The Other for the Sauce”

“No side of the life of New York,” the *Brooklyn Daily Eagle*’s Cromwell Childe wrote in 1902,

is more interesting than the splendid way men of wealth and fashion have thrown themselves into making country places. One year a bare hillside, a field, a rugged shore front; then rumors of its purchase from the farmers who have owned it for generations go about; suddenly a sale is recorded at the country seat, and the next year a transformation has been wrought. Where but a few months before there was undeveloped country now a summer house stands, all but complete.¹⁹

As miraculous as it may have seemed, the development of an estate was a complete process involving dozens of professionals. Attorneys, surveyors, architects (house, landscape, farm group, recreational), landscapers, interior decorators, a variety of engineers (sewage, structural, and electrical), and a host of contractors ranging from well drillers to elevator installers were usually involved before the edifice was finished. Of central importance was the principal house architect, who, in addition to designing the dwelling, might assume the responsibility for other roles as well, such as the landscape design and interior decoration. Thomas Hastings, of the distinguished New York architectural firm Carrere & Hastings, advised his clients that “the best results” in finding a proper site for a country house could only be obtained by “consulting your architect before buying.” Only in this way could one be assured of success because of the importance of the

character of the grade; the character of the trees; and the way they are placed on the grounds; the view of the surrounding country, and other conditions the layman may not realize, have a great deal to do with the final architectural results.

Walter Manning, the Massachusetts landscape architect, advised one Long Island client to “stop and live and think and study your house and house grounds problems,” spending some time in a chauffeur’s cottage before launching into construction prematurely. Trowbridge & Ackerman went so far as to spend a summer residing at George D. Pratt’s Killenworth before designing his new house to solve a “problem peculiar to the Glen Cove site and applicable to no other” (a decision that helped them win *Country Life in America*’s 1914 competition for the best country house in America).²⁰ The

extent to which site concerns could predominate is certainly evidenced at Ormston, the Aldred estate for which more than two hundred Olmsted Brothers' plans survive, more than for Boston's Franklin Park.

Site acquisition was in itself a problem, as the client's attorneys faced the difficult task of assembling enough parcels to form an estate of adequate size. Usually this involved the acquisition of contiguous farms in two or three separate transactions, but it took William S. Barstow four closings to form his Kings Point property, while Payne Whitney required five before assembling his Manhasset estate and William K. Vanderbilt, Jr., was at it six or seven times at Lake Success. Unquestionably, the most remarkable feat of assembly in Long Island's country house annals took place in 1910, when a New York attorney, W. D. Guthrie, and a utility magnate, John E. Aldred, acquired four hundred acres on the North Shore to establish their adjoining estates. The parcel included an entire hamlet consisting of more than sixty structures which the partners demolished. Aldred was to recall for a World Telegram reporter in later years that "Mr. Guthrie and I destroyed the village of Lattingtown to get the view we wanted."²¹

Following acquisition of the property, Hastings advised dividing whatever amount his clients intended to spend in two equal parts, half going for the house and the rest for the outbuildings, or, as he termed it, "one half for the pudding, the other for the sauce." It was "the sauce" that first had to be prepared to ensure an orderly progression. Certain support buildings, such as the gate house (often multiple) and stable/garage, were absolute requisites, not to mention quarters for the superintendent, and utilitarian facilities ranging from pumping stations to water towers. In the optional category came the farm group, power plant, winter cottage for off-season weekends, greenhouse complex, which might supplement a conservatory (Louis Comfort Tiffany's Laurelton Hall had fifteen greenhouses which supplied fresh thematic floral arrangements for the house each week),²² and casino or indoor sports facilities that might contain a pool, bowling alley, and a variety of racquet courts. Boat houses, docks, guest cottages, servant cottages (there were twenty-one on Marshall Field's place), outdoor pools, kennels, indoor riding rings, polo stables, and golf courses were other ingredients for "the sauce." A dozen or more of these ancillary structures was not uncommon, and in many cases the number was much larger. George C. Taylor's Moriches estate boasted thirty such buildings, and included a bicycle house with storage and repair facilities overseen by an English velocipede instructor. That the mundane in outbuildings could be made picturesque is attested to by William C. Whitney's 187-foot eight-story McKim, Mead & White-designed water tower in Old Westbury, the most prominent feature on the estate, and Marshall Field's imposing polo stables designed by John Russell Pope.

Support structures of this scale, however, presented design problems without parallel in the history of American domestic architecture. Hence, a few country house architects began to specialize in the more complex types

of estate ancillaries. J. W. O'Connor became the leading architect of indoor tennis courts, while Alfred Hopkins established a thriving practice in farm group design and is credited with at least a dozen such complexes on Long Island. The well-developed farm group brought together the country gentleman's herd of prize cattle, milking cows, sheep, pigs, poultry, horses (work, show, and driving would usually be stabled elsewhere), wagons, and trucks, in an integrated complex which often included adjoining housing facilities for the farm hands. As Hopkins wrote to a prospective client in 1924, while he did not expect laymen to read his book on the subject, *Modern Farm Buildings*, estate owners could be assured that the Hopkins office considered "practical requirements very carefully [and] ventilation, sanitation and the dairy in particular." While the average farm group may have provided cream for the owner's table, it was never designed to be income producing or even self-sustaining. In many instances farm groups were essentially breeding clinics where country gentlemen with a fondness for the genteel pastime of raising prize livestock or poultry could pursue their hobby. Marshall Field could lecture for hours on the blood lines of his prize cows and maintained as many as five hundred Guernseys at his Lloyd Neck estate, while at Sands Point, Howard Gould let his passion for peafowl, turkeys, and "the showier breeds of chickens" have full play. A reporter for the *New York Tribune* visiting "Castle Gould" in 1902 found his henneries, duckhouse, and pheasant, peacock, turkey, and other fancy fowl runs and nurseries "among the most extensive and best arranged to be found in the United States."²³

Perhaps the most remarkable estate building erected in this country at the turn of the century was for William C. Whitney's Old Westbury estate. The eight-hundred-foot-long racing stable with an adjoining one-mile track contained eighty-three box stalls, each measuring twenty by twenty-five feet, and a second story devoted to the grooms' dining room, gym, dormitory, and library! If the *Tribune* reporter was impressed by Gould's henneries, he was simply amazed by Whitney's racing stable:

Although a hundred persons occupy the place when the horses are there, a regiment of soldiers could be added without crowding. The metal bedsteads, with their white coverings and pillow cases, arranged in long rows in the immense rooms, remind one of a ward in a hospital. On the same floor in the central wing is the kitchen, an immense room with every modern convenience on a scale large enough for a hotel. An icebox as large as the kitchen adjoins it. A Chinese cook presides over this department and keeps everything so scrupulously inviting that visitors seeing the place feel a strong desire to lunch there.²⁴

The Whitney stable, however, could not match the dimensions of the Pratt Oval, the service center for Dosoris Park, the Pratt family's estate colony at Glen Cove. Built between 1904 and 1906 on the site of an earlier wooden structure, the handsome brick, limestone, and terra-cotta edifice represented the entire infrastructure for a family compound which, by the 1930s, had

grown to twenty-one residences and sixty-one ancillary structures. The Oval's support functions included that of stable, farm group, garage, and housing for grooms, coachmen, and chauffeurs. The central structure or "administration building" contained the estate offices and switchboard from which upwards of four hundred Dosoris Park employees were directed. Adjacent to the Oval to the north were the workshops for plumbing, carpentry, and the blacksmith's forge. The Pratt Oval stands apart in the Long Island country house experience—housing the services that would have been found in an entire manorial village in the English countryside.

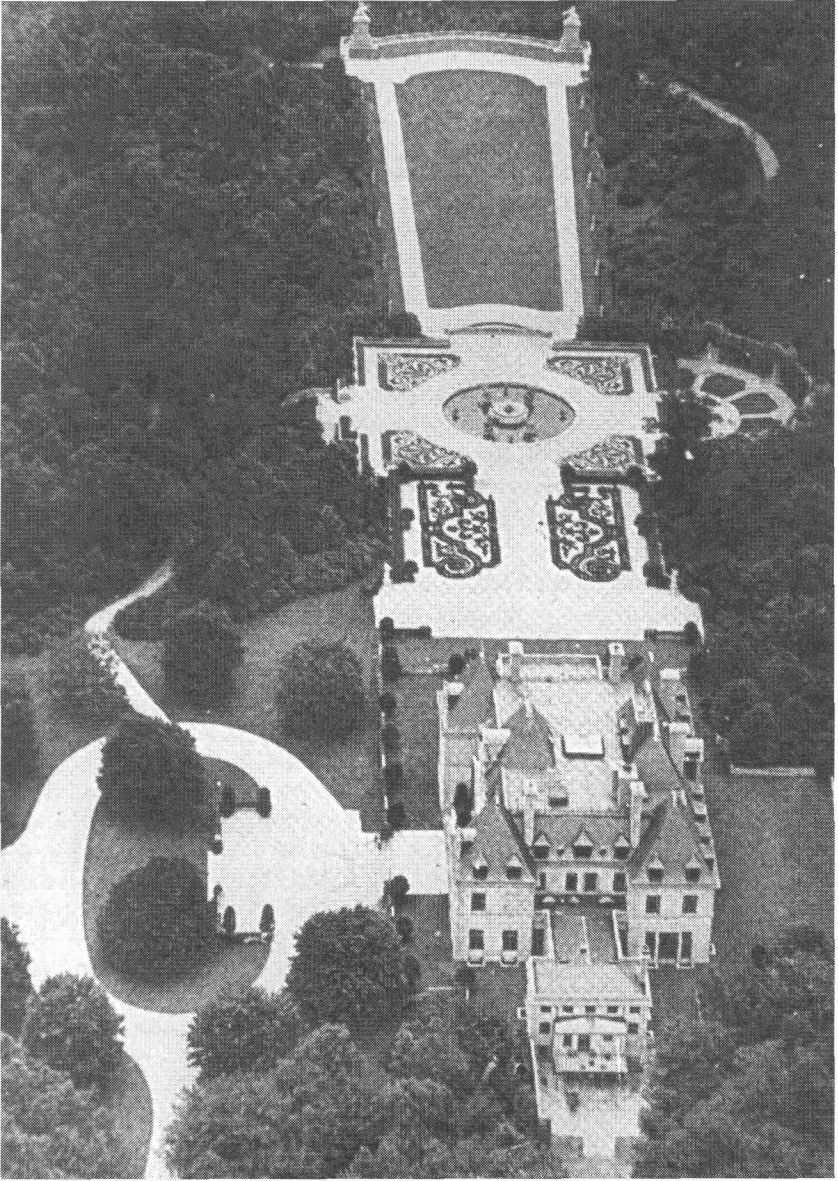
It was these differences in organization, conveniences, and, above all, in the vocational and recreational nonessentials that so surprised foreign observers. As the Prince of Wales had noted on seeing Clarence H. Mackay's Harbor Hill, the

paintings, tapestries, old china and armor would have been commonplace enough in a British country house; what was surprising was to find on the same property a squash-rackets court, a gymnasium, an indoor swimming pool, and a Turkish bath.²⁵

The Impact of the Estates: Agrarian Displacement and a New Economic Order

The country house phenomenon was as disruptive to Long Island as had been European settlement or the more recently manifested post-World-War-II influx of suburbanites. In some cases the very landscape was altered. Otto Kahn, the investment banker, was so late in discovering the North Shore that he did not build his 126-room chateau designed by Delano & Aldrich until 1915, after most of the prime estate sites had already been taken. He was not to be discouraged, however, and relied on earth-moving equipment to build on a huge hill on his Cold Spring Harbor property which would offer the commanding prospect he desired for his residence. Further north, the development at the turn of the century of Walter Jennings's and L. C. Tiffany's estates on opposite sides of Cold Spring Harbor led to the removal of two of the North Shore's largest resort hotels, the Glenada and Laurelton, while Clarence Mackay's purchase of the 368-foot-high Harbor Hill at Roslyn led to the closing of Taber's Observatory, a popular attraction and picnicking site. Unquestionably, the most disruptive undertaking of the sort was the already mentioned destruction of the village of Lattintown by Messrs. Guthrie and Aldred to achieve the views they desired.

The reaction of native Long Islanders to the onslaught of the rich seems to have ranged from anger and resistance to bewilderment. "We, the undersigned farmers of the South side of Long Island, do hereby notify and forbid the so-called Rockaway Hunting Club from crossing our land with horses and dogs," the farmers of Oceanside notified the club's governors in 1895. "We are determined to put a stop to this nuisance which has been going on the past eight years." Yet Isaac Hicks, the Quaker nurseryman from



Harbor Hill, the residence of Clarence Mackey, Roslyn. Aerial photo, 1923, courtesy S.P.L.I.A.

Westbury, seemed resigned to the changing scene in a letter written in 1900 to Friends in Pennsylvania:

Yes the world around here moves rapidly. The great wealthy ones continually come and a large number of small ones come too. But our Friends—where are they—3/4 gone. The last purchase is the great Harbor Hill Clarence Mackay estate and a farm and 300 acres of woodland besides and they are working all the time. We, my brother Samuel and I, had 16 acres of woodland there and we sold \$441.00 pr. acre. Worth perhaps \$75. pr. acre old time.²⁶

Who were these “wealthy ones” who would pay more for land than its agricultural worth? What would happen to the North Shore’s Quaker communities which had cultivated this land for over two centuries? Evidence indicates substantial displacement in agrarian acres with only the most resourceful of families holding on to their property. Isaac’s son Henry accomplished this feat by turning a nursery business based on supplying fruit trees to local farmers into a concern that moved large specimen trees and did landscaping for estates. A 1903 *New York Herald* article documented the displacement process by recording the establishment dates of the five family farms that Payne Whitney acquired to form Greentree:²⁷

<i>Farm</i>	<i>In Family Since</i>
Charles T. Mitchell	1728
George W. Ketchum	1767
A. L. Brinkerhoff	1725
Louisa Skidmore	1800
Schenck	1690

As the farm land went so went the shore front that had always been accessible to town folk for recreation and clamming. In Oyster Bay in 1910, the baymen, feeling the effects of estate encroachment, reasserted their right to access to the clamming beaches at Centre Island by circling the island with a wagon that cut through all the new docks that blocked their way. Henceforth, Centre Island docks were to incorporate an unusual feature, hinged sections which could be raised when the baymen appeared.²⁸

The *Long Islander*, based in Huntington, railed against this undemocratic estate encroachment in 1906, warning its readers that their town’s beaches were “slowly but surely being appropriated by due process of law by those owning the adjacent upland, to the exclusion of the general public.” William J. Matheson, the new owner of Fort Hill, on Lloyd Neck, the paper commented, was “the latest member of the millionaire contingent” to ask the commissioners of the Land Office of the state of New York for an underwater land grant. The approximately thirteen acres Matheson requested were for his “beneficial enjoyment,” for he planned to erect thereon “docks, boathouses, bathing houses, jetties, bulkheads and other structures.” The paper predicted

that Matheson and other local estate owners who were making similar applications would face strong opposition because their actions had given "the common people nerve enough to get ready to demand their own."²⁹

The citizens of the town of North Hempstead barely saved "their own" in one of the most publicized town vs. estate-owner battles of the era. William K. Vanderbilt, Jr., wanted Lake Success, its four approaches, and water rights after having secretly purchased the 640 surrounding acres in 1902. On this land stood dozens of buildings and the Lake Success Hotel, which he intended to raze to make way for a huge Hunt & Hunt-designed castle. Vanderbilt's attorneys offered the town \$30,000 for the lake, and forced a special election over the issue in which pro and contra slates of trustees contended, arousing feelings the *New York Herald* reported were "more bitter than those engendered by a Presidential campaign." The proposition went down to defeat (although the *Herald* found that a \$100,000 offer might have made the difference) in one of the few instances where even the most grandiose aspirations of an estate owner were not fully realized. Even the local merchants had misgivings about the estate boom. Huntington's *Long Islander* noted in 1904 that so many farms had been sold in its environs that the town was ceasing to be a farm center, as evidenced by the fact that now only one sailing packet carrying farm produce ran to New York for a few months each year, whereas formerly three vessels had made the trip year-round. The paper contended that the eighty miles of shore front from Cold Spring Harbor to Northport could be covered "with handsome houses built on villa plots." Why, there was room for "thousands of them," and Main Street's post-agricultural prosperity depended on attracting commuters and summer people. "When farms have been cut up and sold in plots as in the case of Selleck, Conklin, Atwater, Fleet and other estates on East Neck, now covered with scores of beautiful places, the change had been a beneficial one," the paper opined, "but where large tracts of hundreds of acres are monopolized for the enjoyment of a single owner, the change is one to be regretted." Where Main Street could only sell one lawn mower, fifty might have been sold if only "the wealthy man" would be content with five or ten acres rather than buying up farms for "the purpose of carrying out large and extensive schemes of improvement."³⁰

In time, the estates did win a large measure of acceptance from Long Islanders as the issues of displacement, the appropriation of the public domain, and Main Street's expectations of profitability began to dissipate in the face of new economic opportunities. Vanderbilt had said it would be so in 1902. Why should the voters of North Hempstead worry if his acquisition of Lake Success prevented a handful of people from making a living by cutting ice? Didn't they realize how many people would be employed in his castle? A staff numbering in the teens was required to run even a modest country house, and the twenty-three servants' rooms at the Cruger-Pierce-Williams mansion in Bayville was not considered an unusual number in service. A particular interest, such as Marshall Field's penchant for Guernsey cattle, required

additional help. The Chicago department store heir is said to have had a grounds crew of eighty-five in the heyday of Caumsett, while the seasonal force at Planting Fields is thought to have reached several hundred. Of course, nothing exceeded the four hundred employees required to run Dosoris Park, the Pratt family's Glen Cove compound. The Pratts provided much of the available employment in Glen Cove for three or four decades. It was not long before the local business community also felt the trickle-down effect. Roy K. Davis, the liveryman, could not believe his good fortune in 1923 when he landed the contract from the Whitney Company, principal contractors for the construction of Caumsett, to transport between four-and-five hundred employees out to Lloyd Neck and back daily! *The Long Islander* reported on 9 February of that year that Davis "already had one Reo bus accommodating 20 people in service, and within the next three weeks expects to have more of these vehicles, which are the latest and best made." New York City-based subcontractors soon found they had so much estate work on Long Island that branch offices and local employees were required. James McCullagh, Inc., the plumbing and heating firm, established its North Shore office in Hicksville, and could report by spring 1925 that they had installed heating systems in five mansions and one country club in the last two years. Lewis & Valentine, the famous landscape concern, with offices at 47 West 34th Street, Manhattan, boasted four nurseries and branch offices on Long Island at this time, and was doing such a business that its boxwood expert regretted to inform Mrs. Lloyd-Smith, in September 1924, that the last train load of old English boxwood for the season had arrived at Glen Head, and orders should be placed promptly before the ten freight cars were emptied.³¹

New industries were also appearing on Long Island, largely to meet the needs of the new estates. The Nassau Light and Power Company, which provided service to dozens of North Shore communities from its modern plant at Glenwood Landing and comprised a major segment of what was to become LILCO, actually had its origin in E. D. Morgan's desire to obtain electricity for his Wheatley Hills estate in the 1890s. The hand of the summer community is also seen in the spread of the telephone, the region's first service having been established by the Glen Cove Central Exchange as early as 1884, and in the founding of the first hospitals. The Nassau Hospital (now Winthrop University Hospital) in Mineola, Long Island's first voluntary, non-profit hospital east of the city line, moved in 1900 from temporary quarters to its first permanent facilities. Located next to the railroad tracks for the convenience of patients arriving by train from eastern Long Island, the complex was designed by no less a practitioner than Richard Morris Hunt, architect of the Vanderbilts' cottages at Newport and Oakdale. Nassau Hospital's first wards were named for its major patrons, the Vanderbilts, Harpers, and Belmonts. Estate owners were also involved in the development of community hospitals. Yet, no one family did more to establish advanced health care on Long Island than the Whitneys, who were instrumental in the later expansion of Nassau Hospital and the growth of North Shore University

Hospital at Manhasset.

In the political arena the estate owners also made positive contributions, both through their own Nassau County Estate Owners Association and the Nassau County Association, formed in 1913 to assist town and county officials in helping and caring for public charges, and to see that the administration of public affairs was conducted on efficient and economic lines, regardless of any political creed or prejudice. It was the Nassau County Association that took the lead in promoting county charter reform, the major political issue in Nassau County for a quarter-century. Several estate owners also represented Long Island in Congress, like Ruth Pratt McLane, while others served on county boards, such as the Locust Valley attorneys William D. Guthrie and John W. Davis, the 1924 Democratic presidential nominee.

Long Island's first art museums, the Heckscher at Huntington and the Parrish at Southampton, were the gifts of prominent summer residents. The hand of the estate owners was even seen in the development of Long Island's primary industry of the twentieth century—aviation. When flying was still thought to be something of a daredevil's sport with few practical applications, these individuals invested in aeronautics. Nelson Doubleday's popular magazine, *Country Life in America*, which chronicled the leisure activities of the rich, gave monthly coverage to the exciting new pastime of flying. August Belmont, a director of Orville and Wilbur Wright's airplane company, was behind the first international air show at Belmont Park, in 1910. Its top prize of \$10,000 had been put up by another Long Island millionaire, Thomas Fortune Ryan of Manhasset.

In the final analysis, the coming of the estates brought opportunities for economic and social progress to a region that had been a backwater since the opening of the Erie Canal had ended its role as Manhattan's bread basket. The barrier island, the agrarian outpost which had been passed over by the industrial revolution for lack of falling water to power mill turbines, was suddenly the most desirable residence in the United States, with the capital connections and infrastructure of social services, utilities, and employment opportunities that had seemed unattainable just a generation earlier.

Country House Statistics: Quantifying the Phenomenon

Even as this encyclopedia of country house architecture is being sent to press after more than a decade of research, hitherto unknown examples are appearing at the rate of several per month. The extent of the phenomenon will never be precisely known, but they number in excess of one thousand. Part of the ambiguity, as Richard Guy Wilson suggests, is in the very definition of a country house, "generic to a whole cast of buildings which might include, in descriptive terms, country seat, villa, place, estate, plantation, manor, lodge, resort, suburban ranch, cottage, a house in the country, tract mansions, and possibly the farm house." In plan, style, and appointments, the differences were even more profound. Long Island after the onset of the twentieth century was at once Colonial Virginia with dozens of Mount Vernon and

Westover look alike, Shropshire and Cotswold exhibiting a compendium of English country-house styles, Bavarian, Normandy, and, to Louis Comfort Tiffany, a vision on the Moroccan coast replete with minarets and palm trees. Yet whether one's notion of country life and rural ideal was "a colossal affair by any standard," as had been Jay Gatsby's "factual imitation of some Hotel de Ville in Normandy," or the Quaker farm house that had been enlarged to form a family compound as was the case with William Russell Grace's place in Great Neck, the country house phenomenon on Long Island was very discernible. The new residences were built on fields, woodlots, and shorelands beyond the limits of the existing villages and market towns, breaking a residential pattern that had existed for centuries. They were also designed by architects at a time when, within the region, only churches, public buildings, and a few country seats had been professionally designed. Finally, they were to be occupied seasonally (fall and spring being preferred) and owned by individuals with no previous connection to Long Island, with but a handful of exceptions in each instance. Falling within these parameters were 973 houses built between the outset of the Civil War, when Long Island was "discovered" thanks to new transportation links (and perhaps helped by new urban insecurities brought to focus by the Civil War draft riots and continuing warm-weather epidemics), and World War II when, after slowing to a crawl during the Depression, the construction of country houses ceased. Two hundred and twenty-nine architects or firms were to design houses on Long Island during the period and, while the great majority of the practitioners had offices in New York, the national flavor of the Long Island country house movement can be seen in the commissions here of Guy Lowell from Boston, Wilson Erye, John T. Windrim, and Horace Trumbauer from Philadelphia, David Adler from Chicago, and George Crawley and Sir Alfred Bossom from London.³²

Economics was the great determinant of the phenomenon, with prosperity the catalyst. Hence, it is not surprising to find that the building of mansions started slowly to increase through the period, with 12 in the 1860s, 19 in the 1870s, 50 in the 1880s, and 141 in the 1890s. It was the unparalleled industrial expansion between 1900 and the end of World War I in 1918 that caused 426, or 43 percent, of the houses to be built. Factors previously mentioned, such as the inflation induced by World War I, the advent of federal income and property taxes, along with the inevitable escalation in the cost of property and labor as Long Island matured as a resort, were among the factors that helped slow construction in the 1910s and 1920s, a period in which the average country house became decidedly smaller and new arrivals intent on acquiring significant acreage, such as Otto Kahn and Marshall Field, were forced to the eastern fringe of estate areas. During the Depression, a much smaller number of new houses were to be built, with a total of only ninety for the entire decade of 1930. All construction terminated with the onset of World War II, when a number of the houses, including Louis Comfort Tiffany's Laurelton Hall and Daniel Guggenheim's

Hempstead House, were used by the military, while others housed children fleeing the terror of the European war theater (John Phipps's Old Westbury Gardens and Howard Phipps's Bonnie Blink). The war also marked the end of *Country Life in America*, the Doubleday periodical that had been the chief chronicler of the phenomenon.

The postwar period brought about the destruction of many of the country houses. Caught between the development pressure of the G.I.-Bill era and a new generation of owners who saw their family houses as expensive burdens, Long Island's mansions had become an endangered species. They were never the power houses of a ruling class, as Mark Girouard has described the English country houses of centuries ago, when the ownership of land and the income derived from it equated with real power. Rather, they were closer to the "great mammoths of domestic architecture," as Clive Aslet has termed the country houses built in Britain between 1890 and 1939, which had "grazed in a savannah of cheap labor and cheap fuel" and were inherently "ill-equipped for survival."³³ However, by happenstance rather than planning, a surprising number of Long Island mansions was able to find adaptive reuses in the postwar era as schools, golf clubs, nursing homes, and religious retreats. Hence, in the late 1980s, 586 (58.4 percent) of the houses in our survey survived; 460 were still in residential use; while 126 had found adaptive reuses. Within the last-mentioned category, thirty-seven were now fulfilling new roles on school or college campuses, while religious use was the second-most common adaptation (23), followed by roles as museums/arboretums (18), and golf clubs (18). The rate of loss has also slowed in recent decades to one or two per year, with fire now an equal partner in destruction to neglect or development. Problems still continue; the public sector seems particularly inept in the handling of such maintenance-intensive cultural properties as large country houses, and the incorporated villages, in which 65 percent of the surviving mansions are situated, continue in their restrictive zoning practices, which preclude such creative adaptive reuse possibilities as corporate offices or condominiums.

Yet with each passing year there seems to be more interest in the country houses, thanks to a building volume of exhibitions, catalogs, decorator showcases, books, tours, and films. The serendipitous survival of so many estates has provided postwar Long Island with a great heritage of American domestic architecture and a significant percentage of its remaining open space, not to mention its recreational and educational facilities, parks, and arboretums. Today, the surviving country houses and their estate settings remain important contributors to the region's identity, quality of life, and, hence, to its economic vitality; in short, they are resources that continue to make Long Island a desirable place in which to live.

NOTES

1. Edward Windsor, *A King's Story, The Memoirs of The Duke of Windsor* (New York: G. P. Putnam's Sons, 1947), 203; F. Scott Fitzgerald, *The Great Gatsby* (New York: Charles Scribner's Sons, 1925), 4.

2. B. C. Forbes, *Men Who Are Making America* (New York: B. C. Forbes, 1917); Ferdinand Lundberg, *America's 60 Families* (New York: Citadel, 1938).
3. *New York Herald*, 6 July 1902; *Brooklyn Daily Eagle*, 12 October 1902; "The North Shore," *Life* (22 July 1946), 73-83; Morris Markey, "Luxury Land," *Holiday* (October 1948), 107-26.
4. David McCulloch, *Mornings on Horseback* (New York: Simon and Schuster, 1981), 142; see Mildred H. Smith, "The Tile Club," *Long Island Courant* (March 1967) 1:7-17, and Robert W. Gibson, "Annals of North Point," diary excerpt in the archives of the Society for the Preservation of Long Island Antiquities (SPLIA), Setauket, N.Y.
5. See Robert B. MacKay, "Of Grand Hotels and Great Estates," in Robert B. MacKay et al, *Between Ocean and Empire: An Illustrated History of Long Island* (Northridge, CA.: Windsor Publications, 1985), 112-31.
6. Caleb Swan to Edward Swan, 5 July 1855, SPLIA. For the LIRR, see Ron Ziel, *The Long Island Railroad in Early Photographs* (New York: Dover Publications, 1990), Ron Ziel and George Foster, *Steel Rails to the Sunrise* (New York: Duell, Sloane, and Pierce, 1965), and Vincent F. Seyfried, *The Long Island Railroad: A Comprehensive History*, 7 vols. (Garden City: the author, 1961-1984).
7. A. R. Pardington, "The Modern Appian Way for the Motorist," *Harper's Weekly* (16 March 1907), 390.
8. *New York Herald*, 16 November 1902; "Residence of Mr. and Mrs. Wilton Lloyd-Smith, Lloyd's Neck, Long Island, Construction Accounts, Barrow, Wade, Godroe & Company, Accountants and Auditors," in files of SPLIA.
9. Moseette Glaser Broderick, "A Place Where Nobody Goes: The Early Work of McKim, Mead & White and the Development of the South Shore of Long Island," in Helen Searing, ed., *In Search of Modern Architecture* (Cambridge, MA: MIT Press, 1982); William H. P. Robertson, *The History of Thoroughbred Racing in America* (New York: Bonanza Books, 1964), 9; Daniel Denton detailed the advantages of Hempstead's horse country ca. 1670:

Toward the middle of Long Island lieth a plain sixteen miles long and four broad, upon which grows very fine grass that makes exceeding good hay; where you shall find neither stick nor stone to hinder the horseheels or endanger them in their races, and once a year the best horses in the Island are brought hither to try their swiftness, and the swiftest rewarded with a silver cup, two being annually provided for the purpose (Daniel Denton, "A Brief Description of New York: Formerly Called New Netherlands," in Cornell Jaray, ed., *Historical Chronicles of New Amsterdam, Colonial New York and Early Long Island* [1670: reprint 1965, Port Washington: Ira J. Friedman, 1968], 6).
10. Stephanie S. Bigelow, *Bellport and Brookhaven* (Bellport-Brookhaven Historical Society, 1968), 27; J. P. Giraud, *Birds of Long Island* (New York: Wiley & Putnam, 1844), iii-iv.
11. There were earlier rod and reel clubs such as Riverhead's Hunters' Garden, which dates from at least the 1830s (and is still extant), but these organizations had resident memberships.
12. W. P. Stephens, *The Seawanhaka Corinthian Yacht Club: Origins and Early History, 1871-1896* (New York: privately printed, 1963), 15.
13. Robert F. Kelley, "Meadow Brook, The Heart of American Polo," *Country Life in America* (June 1927), 11.
14. Paul D. Cravath, "Preserving the Country Lanes," *Country Life in America* (January 1913), 27; Benjamin R. Allison, *The Rockaway Hunting Club* (Brattleboro, VT: privately printed by the club, 1952), 31; *Brooklyn Daily Eagle*, clipping c. 1899, SPLIA.
15. *Harper's New Monthly Magazine*, clipping c. 1881, SPLIA; *Prominent Residents of Long Island and Their Pleasure Clubs* (New York: Thompson & Watson, 1916), 7. Charles A. Dana, of the *New York Sun*, was one of Glen Cove's earliest summer residents, while his contemporary, William Cullen Bryant, of the *New York Evening Post*, resided in Roslyn. Col. William V. Hester, of the *Brooklyn Daily Eagle*, and Herbert Bayard Swope, of the *New York World*, were

later arrivals summering at Glen Cove and Sands Point, respectively. Also at Sands Point was Conde Nast, publisher of *Vogue*, *House and Garden*, *Glamour*, and other magazines. Nelson Doubleday's Country Life Press at Garden City, which published *Country Life in America*, was not far from his Mill Neck estate. Ormond G. Smith, of the huge "dime novel" house of Smith and Street, resided at Centre Island, while Ralph Pulitzer and William Randolph Hearst also summered on Long Island, not to mention members of the Guggenheim, Lamont, Whitney, and Schiff families, all of whom owned major papers at one time or another. Writers and entertainers were also important boosters. F. Scott Fitzgerald wrote much of *The Great Gatsby* in a room over the garage of the Spanish Colonial house he and Zelda rented in Great Neck in 1922. Ring Lardner had a house nearby, as did Francis Burnett and such Broadway luminaries as Basil Rathbone, Eddie Cantor, W. C. Fields, and George M. Cohan. Frequent visitors to Long Island included Will Rogers, who hit his head on a rock while diving into the Great South Bay, Annie Oakley, P. G. Wodehouse, and Sinclair Lewis.

16. *Prominent Residents*, 2; "Piping Rock Club," *Country Life in America* (February 1920), 50.
17. "Noted Men in New Club," *Long Islander*, 21 February 1919; Mrs. Bradford G. Weekes, Oyster Bay, to Louis De B. Moore, Oyster Bay, 31 May 1925, SPLIA; W. Emlen Roosevelt to Mrs. Percy S. Weeks, 29 May 1925, SPLIA.
18. A new wave of club formation on Long Island would occur after World War I, following a dramatic growth in population.
19. *Brooklyn Daily Eagle*, 5 October 1902, 1.
20. Thomas Hastings, "A Decade in Domestic Architecture," *Country Life in America*, 15 April 1912, 27; Walter Manning, Cambridge, to Wilton Lloyd-Smith, New York City, 25 July 1924, SPLIA; "The Best House of the Year," *Country Life in America*, 14 October 1914, 35.
21. *New York World Telegram*, 20 October 1942, 17.
22. Joseph Purtell, *The Tiffany Touch* (New York: Random House, 1972), 153.
23. Alfred P. Hopkins to Wilton Lloyd-Smith, 1 December 1924, SPLIA; *New York Tribune Illustrated Supplement* (Sunday, 21 September 21, 1902), 8.
24. *Tribune*, *ibid.*
25. Edward Windsor, *A King's Story*, 200.
26. Allison, *Rockaway Hunting Club*, 93.
27. Isaac Hicks to Mary E. Thompson, Ogontz, Pa., 7 March 1900; *New York Herald*, 25 January 1903.
28. Malcolm MacKay and Charles G. Meyer, Jr., *A History of Centre Island* (The Centre Island Association, 1976), 15.
29. *Long Islander*, 17 August 1906, 2.
30. *New York Herald*, 25 January 1903; *Long Islander*, 7 October 1904.
31. Monica Randall, *The Mansions of Long Island's Gold Coast* (New York: Hastings House, 1979); *Long Islander*, 9 February 1923; James McCullagh, Inc., New York, to Cauldwell Wingate Company, New York, 29 April 1925, SPLIA; Lewis Valentine Company, New York, to Mrs. William Lloyd-Smith, Oyster Bay, 16 September 1924, SPLIA.
32. Richard Guy Wilson, "Picturesque Ambiguities: The Country House Tradition in America," in *The Long Island Country House 1870-1930* (Southampton: Parrish Art Museum, 1988), 13-14; Fitzgerald, *The Great Gatsby*, 5.
33. Clive Aslet, *The Last Country Houses* (New Haven: Yale Univ. Press, 1982), 3.

Long Island Triangulated: Nineteenth-Century Maps and Charts of the U.S. Coast Survey

By David Yehling Allen

Long Island has the little-known distinction of being the site of the first major venture in scientific cartography undertaken by the United States government. Starting in the 1830s, the U.S. Coast Survey began its career by producing a series of maps of Long Island and charts of its surrounding waters. These are the earliest detailed and accurate maps of the entire island. They contain a wealth of information for historians, archaeologists, environmentalists, and others interested in Long Island's past.

The story of these maps sheds considerable light on the early history of government-sponsored science in America.¹ The man behind the maps was Ferdinand Rudolph Hassler (1770-1843). Born in Bern, Switzerland, and trained as a surveyor in his native country, Hassler emigrated to the United States in 1805—largely to escape the political troubles of Napoleonic Europe. In 1807 he was selected by President Thomas Jefferson to head the newly founded U.S. Coast Survey, which was created to meet an urgent need for accurate charts of the new nation's shorelines and harbors. Hassler was the obvious choice for this position. He appears to have been the only person then in the United States with the necessary education and experience to lead such a survey.²

To understand Hassler's achievement and to interpret his maps, it is necessary to know something about the history of cartography during the preceding century and a half. The end of the seventeenth century saw the beginnings of the first systematic survey of an entire country. This was the Survey of France, begun by Giovanni Domenico Cassini and continued by his son, his grandson, and his great-grandson. This family enterprise went on into the period of the French Revolution and finally resulted in a 182-sheet map of France, which was published between 1757 and 1789.³ The activities of the Cassinis were the first of many similar surveys undertaken by European governments, which were well aware of the military value of maps. The British Ordnance Survey, perhaps the best known of these projects, began in 1791. Although there were no dramatic changes in cartographic techniques during this period, these activities did much to improve the quality of the instruments used for surveying, as well as the training of surveyors.

These early surveys helped establish many practices cartographers now take for granted. These include the expression of scale as a ratio, the use of standardized symbols, and the specification of location in terms of latitude

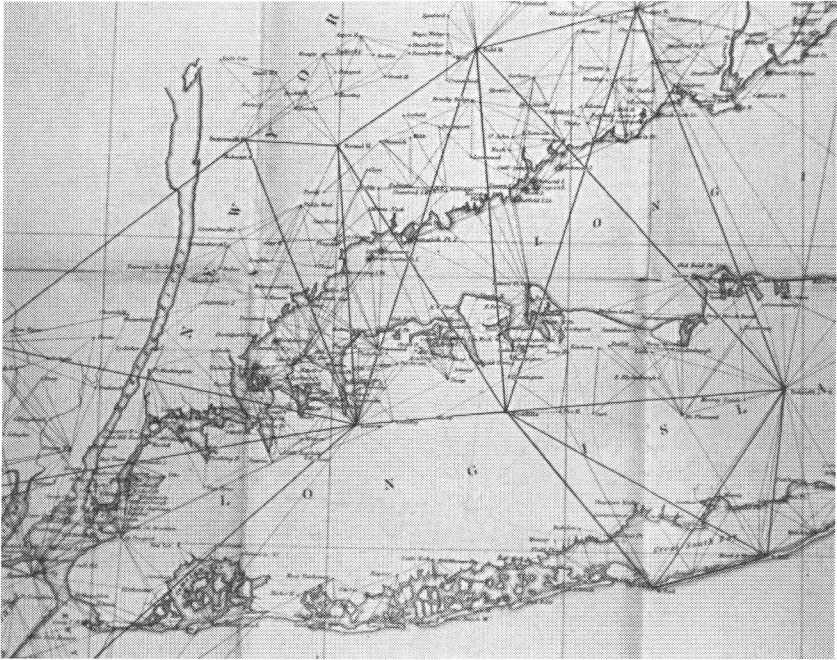


Figure 1. Detail of triangulation network in New York area. Note baseline on Fire Island. Detail from U.S. Coast Survey, *Sketch B., No. 2, Showing the Triangulation & Geographical Positions in Section No. II from New York City to Point Judith* [map] 1:400,000, 1851, in U.S. Senate, 32nd Congress, 1st Session, *Report of the Superintendent of Coast Survey, 1851, Charts, S. Ex. Doc No. 3, (Serial Set No. 616)*.

and longitude.⁴ These surveys achieved a high degree of accuracy by using the techniques of geodesy, triangulation, and plane tabling. *Geodesy*—literally the measurement of the earth—involves the development of accurate techniques for ascertaining latitude and longitude, and the use of map projections that take into account the curvature of the earth. *Triangulation* uses trigonometry to establish a network of triangles for ascertaining positions and relationships within the area to be mapped. And *plane tabling* was used to fill in the details. These techniques were improved by advances in astronomy, mathematics, and instrument making during the eighteenth century. More will be said about triangulation and plane tabling below.

It is no coincidence that Hassler was a European import. This type of surveying was a specialized skill, and the United States was still too economically and culturally undeveloped to have created a group of professionals able to apply these methods. The British military had mapped limited areas of the American colonies using less sophisticated versions of these techniques during the last half of the eighteenth century. The British maps, which included portions of Long Island, were better than anything

produced by American surveyors before 1800. In the first three decades of the nineteenth century, American surveyors improved their techniques but still lagged behind the best European practices. Not the least of Hassler's contributions was training the first generation of American experts in scientific surveying.

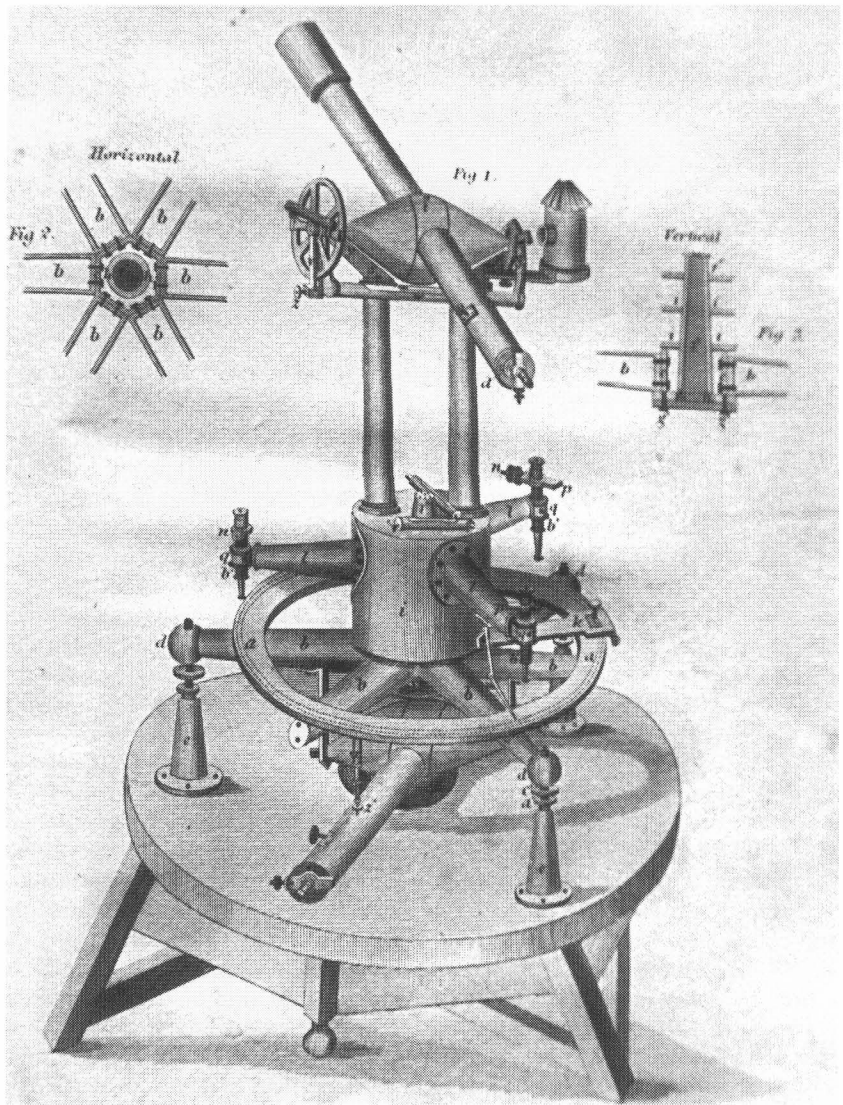


Figure 2. Hassler's "great theodolite" as drawn by his daughter Caroline Hassler. From appendix to *Transactions of the American Philosophical Society*, new series 2, 1825.

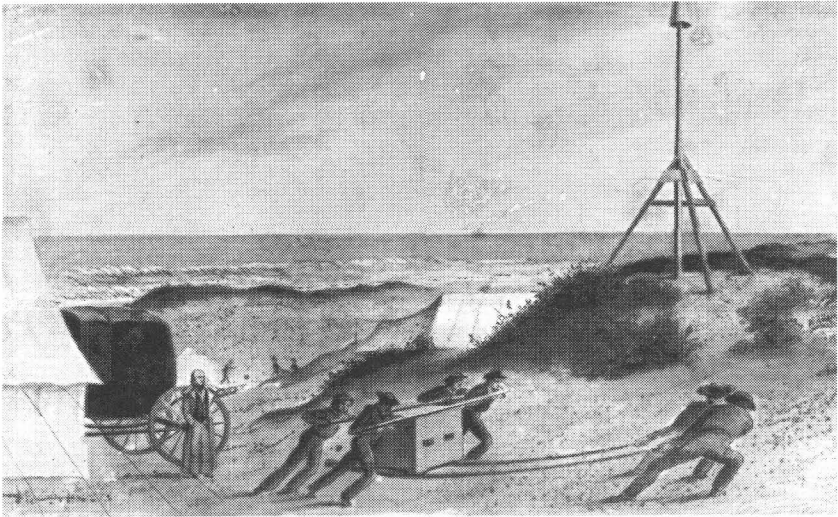


Figure 3. The “great theodolite” being moved into position on Fire Island. Sketch by *John Foley*. Courtesy of National Archives.

The Coast Survey got off to a slow start and experienced a spectacularly stormy history. Hassler had to start from scratch, which meant going to England to supervise the construction of instruments. Owing in part to the War of 1812, he was not able to return until 1816. Shortly after he actually began surveying, Congress withdrew its support, and the Coast Survey was suspended from 1818 to 1832. During this hiatus, Hassler was employed as a professor at West Point, made an attempt at farming, and surveyed the boundary between Maine and Canada. He also established and headed the U.S. Bureau of Weights and Measures. When the Coast Survey was finally revived in 1832, Hassler was once again summoned as its head. He was still the best qualified person in the United States to conduct such a survey.

When surveying was resumed, Hassler decided to begin on Long Island. This location was chosen because of its proximity to the Harbor of New York, and because of the numerous navigational hazards in the waters around the Island. In accord with standard European practice, Hassler established the framework for his maps by using the process known as triangulation. Triangulation is based on the principle that if you know one side of a triangle and two angles, you can calculate the remaining two sides. The first step in a survey based on triangulation is the measurement of a baseline. A baseline is a precisely measured straight line that forms one side of the first of the network of triangles that are created through the triangulation process (see figure 1). Fire Island was chosen as the site because a good baseline requires a relatively flat and level area with unobstructed views of distant features that can be used as survey points. This initial baseline extended for seven miles east of a point near the Jones Beach lighthouse. Because the accuracy of all

subsequent triangles depends on the exactitude of the baseline, Hassler spared no efforts to make its measurement precise. He had it laid out with carefully calibrated steel tubes, which were aligned with microscopes. Much effort was made to minimize the thermal expansion and contraction of the tubes and to take into account the curvature of the earth. The ends of the baseline were marked with sandstone cones. From these markers Hassler and his assistants proceeded to triangulate⁵

The triangulation was carried out with an instrument called a theodolite, which is a telescopic device for measuring horizontal and vertical angles (figures 2 and 3). A type of theodolite is still used by surveyors. By using the baseline as one side of a triangle and the theodolite to measure angles between the baseline and prominent landmarks, it was possible to construct several precisely measured triangles. By using these triangles, in turn, as sides of new triangles, an elaborate network was developed covering all of Long Island (and eventually the entire United States). By the time of Hassler's death, this network of triangles covered some 9,000 square miles between Rhode Island and the mouth of Delaware Bay.

When the first triangles were completed, detailed surveying could begin. The network of triangles furnished a grid of lines and points that could be subdivided at will. Through repeated sightings from this network, the exact position of any feature to be mapped could be ascertained. The actual surveying was divided into two parts—hydrographic and topographic. The hydrographers worked from boats, and were concerned with such matters as the precise locations of rocks and shoals, and sounding the depth of the water. The topographic surveying parties are of primary concern here. They operated on land, and their task was to delineate such features as roads, shorelines, rivers, houses, lakes, relief, and vegetation.

The most important instrument used by the topographic surveyors was the plane table. The plane table is still used, although since the advent of aerial photography it is no longer the primary tool of topographic mapping. Like the theodolite, the plane table enables surveyors to locate objects precisely through triangulation by measuring horizontal and vertical angles. The plane table, however, actually includes a portable drawing board, on which the topographic details are sketched as an integral part of the surveying process. Only occasionally were short distances measured by using chains, which was the standard surveying technique in the United States at that time.

The maps produced on the plane table were quite accurate. In many respects, they are nearly as accurate as modern topographic maps. The one drawback of plane tabling from the viewpoint of the historian is that it enabled the surveyors to dispense with field notes. Such notes would have been an important aid in interpreting the maps, and might have provided additional information of historical interest.⁶

The lack of field notes is particularly a problem because the manuscript maps themselves are by no means easy to interpret. Between 1834 and 1839, Long Island was completely mapped on fifty sheets of paper (some as large

as six-by-four feet). These maps are large scale and very detailed. The scale is 1:10,000 for areas immediately on the coast and 1:20,000 further inland. This compares with a scale of approximately 1:24,000 for the standard 7.5 minute topographic maps produced today.⁷

The main problem in interpreting the maps arises from their lack of uniformity. They were produced by separate surveying parties, headed by different surveyors. Fortunately, all sheets are dated and the name of the person in charge of the surveying is given. This makes it easy to compare the techniques of individual surveyors and to trace the development of the maps over time.

The topographers were given considerable leeway in drawing their maps. The first written instructions for surveyors and the first set of conventional symbols appear to have been issued around 1840, by which time the mapping of Long Island had been substantially completed.⁸ The maps are reasonably consistent only in depicting certain basic features, such as shorelines, roads, houses, wetlands, beaches, and rivers. Beyond these, there is considerable variation in what is shown and how it is symbolized. This inconsistency compounds the problems in interpretation caused by the lack of a legend, and makes interpreting these maps a trial for beginners. Even individual surveyors occasionally followed different conventions on different sheets.

In spite of the problems, almost everything on these maps can be deciphered fairly easily by those familiar with interpreting old maps. One reason Hassler only belatedly made an effort to impose a uniform set of symbols is that there was considerable consensus among mapmakers in the first half of the nineteenth century about what symbols to use. The Survey of France, the British Ordnance Survey, and even the *Burr Atlas of New York State* (1829) use symbols very similar to those on the Coast Survey manuscript maps—and legends exist for all of these.⁹ In addition, the legends produced by the Coast Survey itself in 1840 and subsequently provide many clues to the meaning of the manuscript maps. Doubts in interpretation can often be resolved by comparing the maps to subsequent maps of the same area, to contemporary descriptions in written or printed documents, or to the features as they exist today. Only rarely do symbols appear that stump even the experts.¹⁰

Let us turn to the depiction of cultural and natural features on these maps, beginning with the natural. As mentioned previously, beaches, shorelines, rivers, coastal landmarks, harbors, and wetlands are among the most consistently depicted features on these maps. This is consonant with their primary purpose, which was to provide information useful to water-borne commerce and navigation. It should also be kept in mind that these land surveys were intended to mesh with the hydrographic surveys, which depended upon triangulation from points on the shore established by the topographers. The need for coastal features to be readily understood by navigators, as well as by both the hydrographic and topographic parties, helped ensure uniformity and consistency in their depiction.

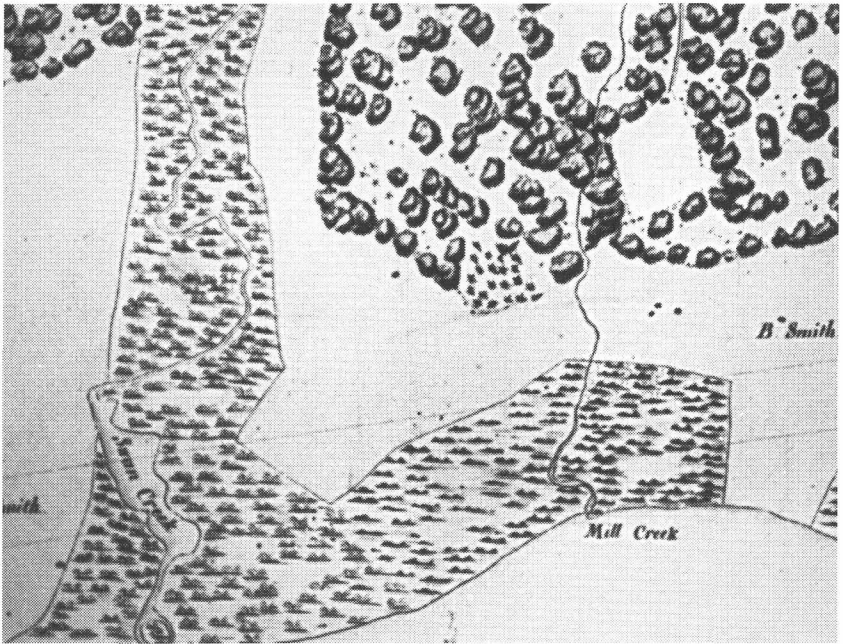


Figure 4. Detail from C. Renard, "Map of the South Coast of Long Island between Patchogue and Smith Point" [ms. map], 1:10,000, 1835 (register no. T-2). Courtesy of National Archives. Note that Renard uses two different symbols to depict apparently identical wetlands. Area behind wetlands is fields, but field boundaries are not shown. Wooded area is at top of photograph. Asterisk-like symbol below the woods probably indicates scrub.

It is something of a mystery why the Coast Survey undertook detailed topographic mapping well away from the shore. The depiction of many of these features was unnecessary for coastal navigation, and Hassler was criticized for wasting time and taxpayers' money producing these maps.¹¹ And it is here that the iconography of these maps is most frequently inconsistent.

The depiction of natural vegetation is particularly unpredictable. The maps can be relied on to show major areas of swamps or wetlands, both fresh and saltwater. But more than one symbol was used to represent them, sometimes on a single sheet (see figure 4). A symbol widely used in the nineteenth century was sometimes employed to depict grasslands, such as the Hempstead Plains, but again not on every sheet. In fact, one map showing the Hempstead Plains uses this symbol, and the adjoining sheet by another surveyor omits it altogether and merely shows a large blank space labeled "plains."¹¹ Scrub oak and other brushy formations are shown by yet another commonly used symbol (figure 5). Deciduous woodlands are generally shown by the symbol found on figure 4, but on some sheets the mapmakers saved time by using this symbol only to outline the edges of wooded areas (figure 6). And on several sheets one surveyor represented deciduous woodlands in a completely different

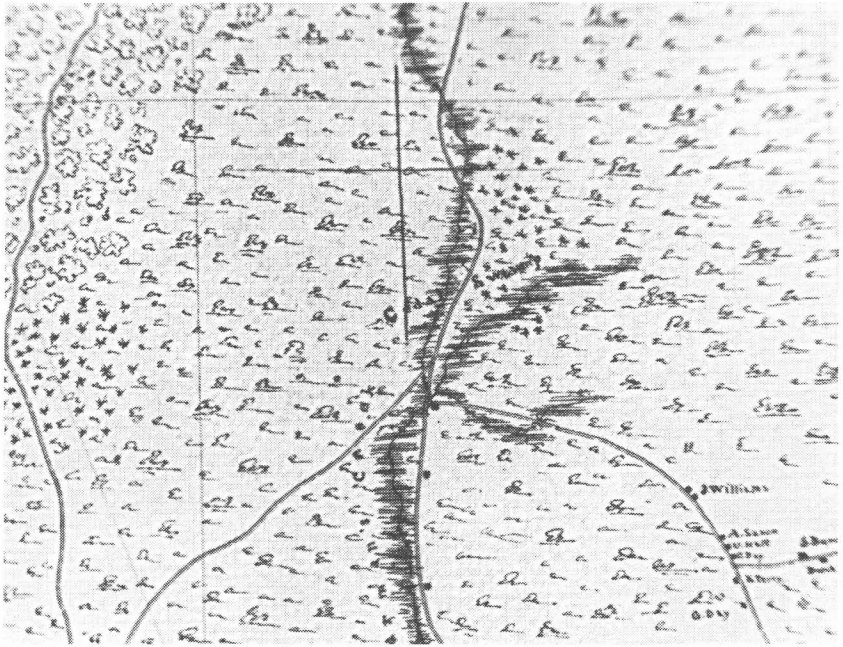


Figure 5. Detail of area near Massapequa. From Hugo L. Dickens, "Part of the Interior of Long Island" [ms. map], 1:20,000, 1836-38 (register no. T-45). Courtesy of National Archives. Symbols for wetlands and surrounding brush are different from those used by Renard, although woods in upper-left corner are shown by a symbol similar to that used on figure 4. White cedars are shown by an asterisk-like symbol that resembles the one used to depict scrub on figure 4 and is also used on later printed Coast Survey maps and charts to depict all types of coniferous vegetation, including pitch pine on Long Island.

way—much to the confusion of users who may think these symbols have some special significance.¹² Coniferous trees (on Long Island usually pitch pine) are generally shown by drawing in what look like tiny Christmas trees. Individual species of coniferous and deciduous trees were rarely differentiated—even in the case of economically important species, such as white cedar, locust, and white pine. The only convincing example of such differentiation I have been able to locate is a white cedar swamp near Amityville (then Huntington South) shown in figure 5. In spite of these inconsistencies and problems, the maps give a reliable overview of broad vegetation patterns on Long Island in the 1830s. This makes them invaluable for naturalists and environmentalists interested in reconstructing Long Island's natural habitats as they were before the coming of the railroad in the 1840s and the massive development of the twentieth century.

Another interesting feature of these maps is their depiction of relief. On a few of the earliest sheets (which were of fairly level areas) no attempt was made to show elevation. On other early sheets relief was shown by crude

hatchures, often referred to as “hairy caterpillars,” which show hilly terrain but do not depict elevation contours. By 1837, however, a more sophisticated system of hatchured contour lines was adopted. On one sheet, which was worked on between 1835 and 1837, contour lines were actually penciled in over hairy caterpillars.¹³ Contour lines were drawn at ten-foot intervals on 1:10,000 scale maps and twenty-foot intervals on 1:20,000 scale maps. The contour lines were then filled in with hatchures, which were shaded more heavily as relief got steeper. Either a small white space was left between rows of hatchures to show where the contour lines were, or else the intervals were shown by slightly offsetting the rows of hatchures. On several sheets, the surveyor did not fill in the contour lines with hatchures, which were regarded as making the map easier to read. There are instances in which the mapmaker stopped in the middle of filling in the contour lines, which gives us a clear picture of how the process of depicting relief was carried out (see figure 6). Users of these maps should not take the contour lines and intervals between hatchures too literally. Spot heights on these maps are quite accurate, but comparison with modern topographic maps shows that the contour lines are often impressionistic. Drawing contour lines with a plane table is not easy, and this is one of the few areas in which these maps are much less reliable than modern topographic maps.

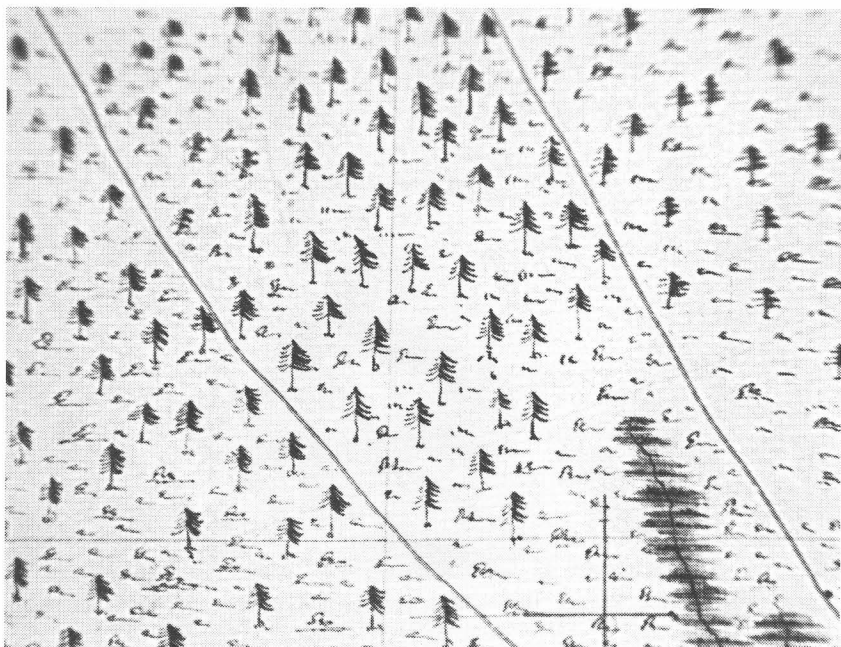


Figure 6. Mixed pitch pine and scrub oak. Detail from Hugo L. Dickens, “Part of the Interior of Long Island” [ms. map], 1:20,000, 1836-38 (register no. T-45). Courtesy of National Archives.

Much can also be learned from an examination of cultural features. Because a major purpose of the maps was to facilitate commerce, roads, railroads, canals, and bridges are generally shown in detail and according to a consistent scheme. It is telling that the legend printed around 1840 specifies what symbols should be used for various types of roads and bridges, but ignores vegetation. Hassler's surveyors depicted an elaborate network of unpaved roads and paths penetrating even the most undeveloped parts of Long Island. Generally speaking, several types of roads and paths are differentiated according to a scheme that also appears in the legend. These roads sometimes provide clues to the activities of early settlers. They may hint at the location of landings used by local farmers, or paths to salt marshes where "salt hay" was gathered. Numerous roads dead end for no obvious reason in the middle of the Pine Barrens. Are they indications of early wood harvesting or pitch gathering activities?

Houses and other structures are also conscientiously shown—although the symbolism is far from consistent. Houses generally appear as small black rectangles. On some sheets, barns and other outbuildings are depicted as hollow rectangles (figure 6), although more frequently they are inked in like

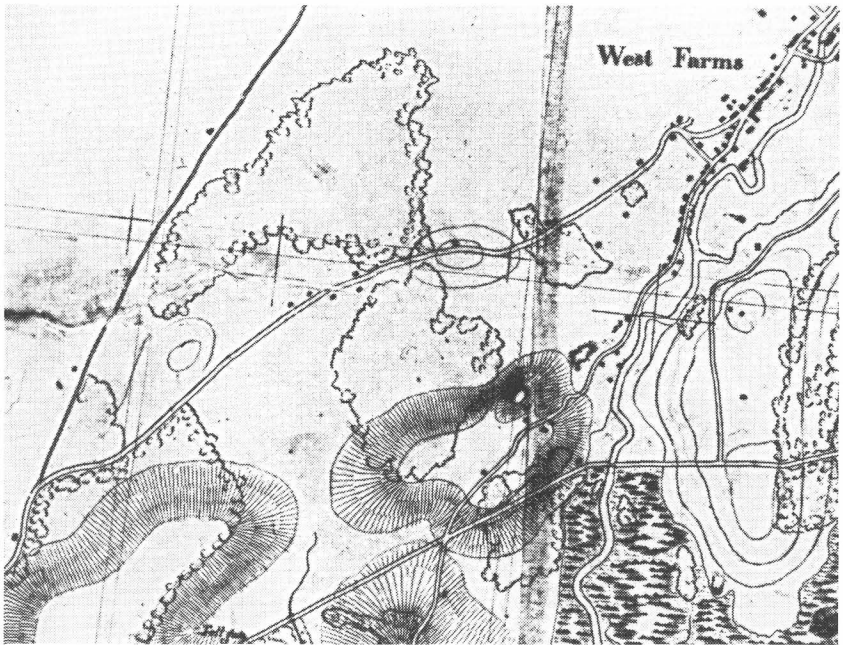


Figure 7. Detail from C. Renard, "Harlem River and Throgh [sic] Neck, New York" [ms. map], 1:10,000, 1837 (register no. T-15). Courtesy of National Archives. This scene in what is now the Bronx shows how contour lines were converted into "contoured hatchures." Note that Renard's style has changed considerably from the earlier map shown in figure 4. A different symbol is used for wetlands and only the edges of wooded areas are shown.

the houses. The names of homeowners are usually not given, but there is great variation in this respect from sheet to sheet. On some maps, the names of the owners are given for practically every house. Elsewhere, only occasional names appear. Usually these are prominent individuals, and the houses are often associated with survey points. Minorities are given short shrift. On several sheets, houses belonging to blacks are labeled only with the word Negro, whereas the names of white homeowners are given. Native Americans fare even worse, and the casual user of these maps would be unlikely to guess that there were any on Long Island. The houses on the Shinnecock reservation are shown, but there is no indication of who lived in them. Several fields are shown near Montauk Point that were almost certainly cultivated by members of the Montauk band, but otherwise there is no indication of the existence of these people.

Other structures are generally shown and labeled, but there is little

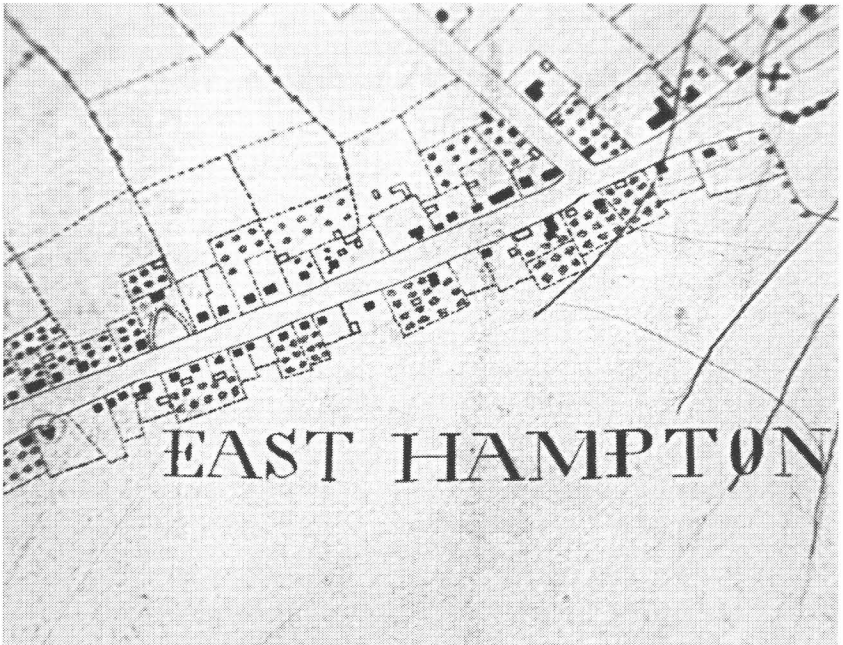


Figure 8. Detail from T.A. Jenkins and J.B. Glück, "Bridge Hampton to Acabonack and East Hampton" [ms. map], 1:10,000, 1838 and 1846 (register no. T-74). Courtesy of National Archives. Houses are shown as solid rectangles, outbuildings as hollow rectangles. A conventional symbol for a windmill appears at upper right. Contour lines appear to have been added in 1846.

uniformity in the use of symbols. Windmills are one of the few types of structures that are consistently shown by an easily recognizable symbol (figure 7). Water mills are sometimes shown by a symbol and sometimes labeled. Churches and schools—which are frequently shown by symbols on both nineteenth-century and modern maps—are not represented on most of these maps, but are often named. Taverns and larger structures, such as factories and boatworks, are generally labeled by function. Examples are brickyards south of Lloyd Neck (Huntington), docks at Port Jefferson, and a factory in Patchogue. There is practically no artwork or decoration. A rare exception is a tiny figure of a man on a galloping horse that one of Hassler's assistants seems to have surreptitiously placed above the Suffolk County Race Course, south of Huntington.¹⁴

The most difficult feature of these maps to decipher is the depiction of fields and cultivated crops. Here the inconsistency reaches its height. On almost all sheets the boundaries of individual fields are carefully delineated, but even here there are exceptions. Thus, on several sheets covering western Long Island there is no indication of fields in areas where farms abounded. Going to the other extreme, in a few cases fields are covered with such a variety of symbols that they look like patchwork quilts (figure 8). The meaning of these crop symbols is often obscure. The easiest to recognize is the symbol used for orchards, which is still used today. The angled and zig-zagged lines that appear on other fields need to be interpreted with caution, because they do not follow a uniform pattern from sheet to sheet. In many cases they seem to have been devices to distinguish visually one field from another, not efforts to depict individual crops. Where (as in figure 9) there appears to be no way to determine from the maps themselves what was growing in these fields, it should be possible to use contemporary records to establish what crops were cultivated. But the variation in the use of these symbols is so great that what is established for one sheet can only be used to help interpret other sheets made by the same surveyor at about the same time.

The completion of the initial survey of Long Island around 1840 coincided with the beginning of important changes in the Coast Survey's activities. Hassler was under pressure from Congress to produce tangible results in the form of printed maps. Around this time he began engraving and printing the first fruits of the surveys. The necessity of producing maps usable by the public seems to have brought home the need for greater consistency. This is probably why Hassler finally produced a set of printed instructions for his surveyors and a legend of symbols around 1840.

The first printed map of a substantial area that Hassler published was a six-sheet map of the area around New York City, which appeared shortly after his death in 1844.¹⁵ This map includes part of Long Island extending approximately as far east as Jamaica. It is of interest for several reasons. Because it was virtually completed by the time of Hassler's death, it is the best statement of what he intended to do with his topographic surveys. It is also far more detailed and accurate than any other map covering a large area

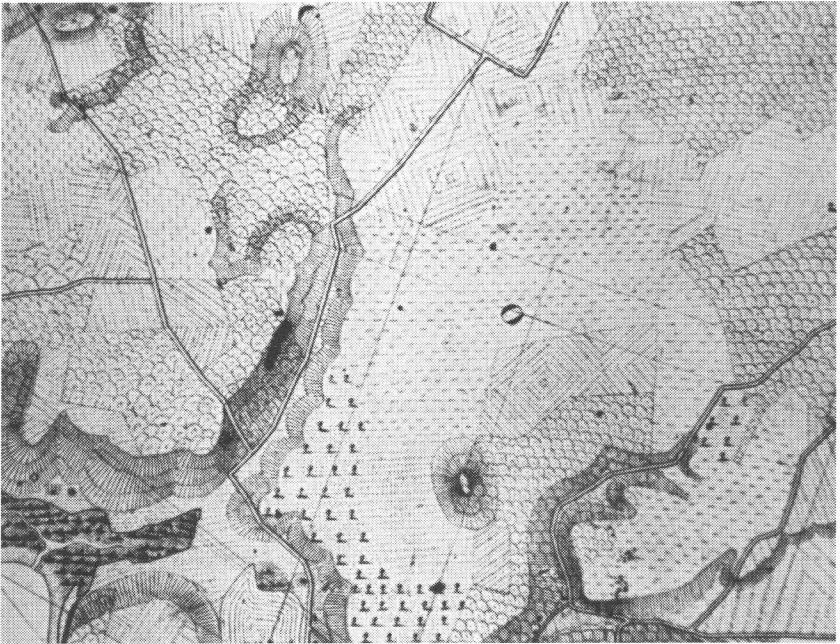


Figure 9. Th. W. Werner, "Part of the North Shore of Long Island" [ms. map], 1:10,000, 1837 (register no. T-34). Courtesy of National Archives.

previously published in the United States. At a scale of 1:31,000 (comparable to modern 7.5 minute topographic maps), it provides a magnificent portrait of the New York metropolitan area in the early 1840s. As can be seen on figure 10, most of the detail on the manuscript sheets is preserved. The names of homeowners are omitted, and no attempt was made to show crop patterns, but houses, fields, roads, wooded areas, wetlands, and many other features are shown in detail. Some information is even added that does not appear on the original sheets. This includes some place names and fields in areas where they were left out on the original surveys. Cartographic conventions were simplified and standardized—making the map much easier to interpret than its manuscript predecessors. Some features, such as wetlands, were shown by conventions quite different from those on any of the unpublished surveys. In addition to topographic information, this map incorporates the results of the hydrographic surveys, and includes such things as soundings and aids to navigation.

The death of Hassler in 1843 marked a change of direction for the Coast Survey. Its new director, Alexander Dallas Bache, was much more pragmatic and politically astute than Hassler, and refocused the activities of the organization on the rapid production of nautical charts—downplaying the role of topographic mapping.¹⁶ Bache realized that the four sheets of

Hassler's 1:31,000 map of New York were too cumbersome for navigational purposes. One of his first acts was to reissue the map on a single sheet at a 1:80,000 scale. This scale became standard for Coast Survey charts of areas larger than individual harbors.

During the 1840s and 1850s charts were issued covering the coastal areas of all of Long Island at this scale.¹⁷ These charts were based on the surveys conducted under Hassler. They provide detailed hydrographic information, but only cover the topography of areas within a mile or two of the shore. This shift in emphasis toward serving the needs of mariners makes them primarily nautical charts rather than maps, thus marking the beginning of an evolution in the products of the Coast Survey in the direction of modern nautical charts. Nonetheless, these 1:80,000 charts still included much more topographic information than appears on modern nautical charts. They show such features as roads, houses, marshes, woodlands, and place names in enough detail to give them considerable historical value. But the smaller 1:80,000 scale meant that a good deal of the information on the manuscript surveys had to be suppressed, and the surveys of the interior of Long Island east of the area covered by the New York harbor map were never published in any form.

A few larger-scale charts were published before 1860, mostly covering



10. Detail from U.S. Coast Survey, Map of New York Bay and Harbor and the Environs [map], 6 sheets, 1:31,000 ([Washington, DC: U.S. Coast Survey, 1844). Courtesy of Library of Congress, Geography and Map Division.

individual harbors. On Long Island these were for Huntington Bay (1:30,000), Hempstead Harbor (1:20,000), and Oyster Bay (1:30,000).¹⁸ These large-scale charts, like the New York Harbor Chart, are important for the light they throw on the manuscript surveys on which they were based. The map of Huntington Bay is particularly interesting because it mirrors much of the elaborate crop symbolism on the manuscript maps of the area.

With the appearance of these charts—all based largely on surveys done in the 1830s and early 1840s—there was a long pause in the Coast Survey's activities on Long Island. In the 1840s and 1850s the Coast Survey concentrated on charting other areas of the nation's coastline, which grew dramatically through the addition of Texas and the Pacific Coast. The Civil War diverted the energies of the Coast Survey to military mapping, and only in the 1870s did extensive surveying resume on Long Island.

The charts resulting from the Coast Survey's activities on Long Island after 1870 are quite different from those produced before the Civil War. The Survey continued to reprint its charts of the Long Island region until around 1880 with the topographic information unaltered, but with the hydrography and "aids to navigation" (such as lighthouses and life saving stations) updated. In the editions of these charts that appeared after 1880, almost all of the topography was suppressed, so that the resulting charts appear much like modern nautical charts. In the 1870s a new round of surveying began on Long Island. During this period many detailed charts of individual harbors and bays were made by the U.S. Army Corps of Engineers in cooperation with the Coast Survey. Although these surveys were never published, they were utilized by the Coast Survey (renamed the Coast and Geodetic Survey in 1878), which completely resurveyed the coasts of Long Island between 1870 and 1890. On this occasion only areas within a few hundred yards of the shore were surveyed, making the resulting maps much less informative than the surveys conducted under Hassler.¹⁹ The printed charts resulting from these surveys look much like modern nautical charts published by the National Ocean Service. They tell us a great deal about the waters around Long Island, but very little about features on the land. For more recent topographic maps of Long Island—detailed maps of surface features—one needs to turn to the products of the United States Geological Survey, which began to appear for this area around 1900.²⁰

In many respects, these later developments grew naturally out of the work of Hassler and the U.S. Coast Survey. The Coast Survey is not just the direct ancestor of the modern National Ocean Service; the principles established by Hassler also had a major influence on the maps of the Geological Survey. Although much has changed since the advent of aerial photography, satellites, and computers, modern U.S. government maps still show marks of having evolved out of the work of the Coast Survey. Long Island historians are fortunate in living in one of the first areas mapped by this agency. The legacy of Hassler and the Coast Survey, for us, is a remarkably detailed and accurate portrait of the face of the Island in the 1830s.

NOTES

1. For the place of the Coast Survey in the history of American science, see A. Hunter Dupree, *Science in the Federal Government: A History of Policies and Activities to 1940* (Cambridge, MA, 1957) especially 26-33, 51-56, and 100-5. For the period after the Civil War, see also Thomas G. Manning, *U.S. Coast Survey vs. Naval Hydrographic Office: A 19th-Century Rivalry in Science and Politics* (Tuscaloosa, AL 1988), and Daniel J. Kevles, *The Physicists: A History of a Scientific Community in Modern America* (New York, 1978), 3-59.

2. For the details of Hassler's life, see Florian Cajori, *The Chequered Career of Ferdinand Rudolph Hassler* (Boston, 1929; reprint, New York, 1980).

3. For an introduction to the activities of the Cassinis see John Noble Wilford, *The Mapmakers* (New York, 1981), 111-27; Cassini's original *Carte de France* is available on microfiche at the Frank Melville, Jr. Memorial Library, University at Stony Brook.

4. For those unfamiliar with map interpretation, an explanation of a few basic cartographic concepts may be helpful. The first is *scale*. On modern maps scale is usually expressed as a ratio, such as 1:24,000 or 1:100,000. This is a comparison of the distance measured on a map compared to the corresponding distance on the ground. A ratio scale has the advantage of being independent of any unit of measurement. Thus, a scale of 1:24,000 could be expressed as either one inch on the map equals 24,000 inches on the ground, or one centimeter equals 24,000 centimeters. Many map users are confused by the expressions "large scale" and "small scale." A large-scale map is a detailed map, and the ratio of distance is consequently low. Thus, a 1:24,000 scale map is on a larger scale than a 1:100,000 scale map.

Older maps frequently express scale in such terms as "one inch equals one mile." Many maps published before the mid-nineteenth century used a variety of obsolete scales, such as "40 chains to an inch." These older scales are frequently converted by historians of cartography into ratios to make them comprehensible to modern readers. Thus, "one inch equals one mile" can be expressed as 1:62,500 (there are 62,500 inches to a mile). It is also important to understand how longitude and latitude are expressed in terms of degrees, minutes, and seconds. Following a convention that can be traced back to the numerical system of ancient Babylonia, geographers divide the globe into 360 degrees—going both from east to west (longitude) and north to south (latitude). Latitude is measured from zero degrees at the equator to ninety degrees at each of the poles. Longitude is measured by the number of degrees from the arbitrarily chosen meridian of the observatory at Greenwich, England. Each degree is subdivided into sixty minutes, and each minute into sixty seconds. Using intersecting lines of latitude and longitude, any point on earth can be precisely located and expressed in terms of degrees, minutes, and seconds. For example, the University at Stony Brook is 40 degrees, 55 minutes, and 02 seconds north of the equator by 73 degrees, 07 minutes, and 30 seconds west of Greenwich (abbreviated 405502N0730730W or 40 55' 02" NO 73 07' 30" W).

Distance can also be expressed in terms of degrees, minutes, and seconds. Thus, the standard 1:24,000 topographic map issued by the U.S. Geological Survey is also known as a 7.5 minute map, because it measures 7.5 minutes from edge to edge. (Approximately 8.35 by 6.20 miles for this area—the distance represented by a minute varies greatly by latitude and very slightly by longitude.) The older 1:62,500 (one inch to a mile) maps issued by the U.S. Geological Survey measured 15 minutes from side to side.

5. The best description of the technical aspects of early Coast Survey mapping is the second volume of Aaron L. Shalowitz, *Shore and Sea Boundaries*, 2 vols. (Washington, DC, 1962-64; for easily understandable explanations of triangulation, see Wilford, 96-97, or David Greenwood, *Mapping*, 3d ed. (Chicago, 1964), 223-25.

6. Shalowitz 2:86.

7. These topographic sheets now reside in the Cartographic and Architectural Branch of the National Archives. A complete set of bromide prints of these maps, produced from negatives held by the National Ocean Survey, are housed in the Map Collection at the Melville Library, University at Stony Brook. These prints can be purchased (for about \$79 each) from the Data Control Section, Hydrographic and Topographic Surveys, Att.: CG-243, 55M3, Station 6814, 1315 East-West Highway, Silver Springs, MD 20910—telephone (301) 713-2709.

8. Both documents are reproduced in Shalowitz 2:165-68, 196.
9. Those attempting to interpret the Coast Survey maps of Long Island may find it helpful to refer to less detailed maps made at about the same time, particularly the Queens and Suffolk County sheets of David H. Burr, *An Atlas of the State of New York* (New York, 1829); J. Calvin Smith, *Map of Long Island with the Environs of New York and the Southern Part of Connecticut* (New York: J. H. Colton, 1836); and J. Chace, *Map of Suffolk Co., L.I., New York* (Philadelphia, 1858). All of the above are in the Map Collection, Main Library, University at Stony Brook.
10. I have learned much about these maps from their users, and would particularly like to acknowledge the contributions of Francis Turano, Gaynell Stone, Stephen Englebright, Henry Muller, and Robert Miller.
11. Compare T. A. Jenkins, "Hicksville and Jamaica, Brushville and Miltham, New York" [ms. map], 1:20,000, 1837) register no. T-37) with Hugo L. Dickens, "Part of the Interior of Long Island" [ms. map], 1:20,000, 1836-38 (register no. T-45). Coast Survey manuscript maps were checked in on registers and assigned numbers beginning with *T* (for topographic maps) or *H* (for hydrographic charts). These numbers are used on indexes published by the National Ocean Survey, and are the generally recognized means of identifying these maps.
12. F. H. Gerdes on several sheets covering the north shore of central Long Island. Register numbers T-29, T-30, and T-31.
13. For example, Dickens on register no. T-45.
14. Sheet no. T-45. The figure is so small it requires a magnifying glass to recognize it.
15. U.S. Coast Survey, *Map of New York Bay and Harbor and the Environs* [map], 6 sheets, 1:31,000 (Washington, DC: U.S. Coast Survey, 1844).
16. For Bache see Dupree, 100-5, 115-19, 132-35, and Merle M. Odgers, *Alexander Dallas Bache, Scientist and Educator, 1806-1867* (Philadelphia, 1947).
17. The Coastal areas of Long Island are covered in their entirety at a 1:80,000 scale by the following charts: *Map of New York Bay and Harbor and the Environs* (1845); *Eastern Part of Long Island Sound* (1848); *Long Island Sound (Western Sheet)* (1855); *Middle Part of Long Island Sound* (1857); *Western Part of the Southern Coast of Long Island* (1851); *Middle Part of the Southern Coast of Long Island* (1857); *Eastern Part of the Southern Coast of Long Island* (1857). Each of these charts was reissued several times during the nineteenth century. Some of the later editions have different names.
18. These are: *Oyster or Syosset Bay* (1847), *Hempstead Harbor, Long Island* (1859), and *Huntington Bay* (1859).
19. The charts made by the Army Corps of Engineers are housed at the Cartographic and Architectural Branch of the National Archives. They are listed in David Yehling Allen, "Preliminary Bibliography of Long Island Maps" (unpublished, available at Map Collection, Melville Library, University at Stony Brook). Bromide prints of the 1870-1890 survey of the coasts of Long Island are also housed in the map collection at the Melville Library, University at Stony Brook.
20. The U.S. Geological Survey (U.S.G.S.) was founded in 1878 with Clarence King as its first director. Its director after 1881 was John Wesley Powell, under whose aggressive leadership the U.S.G.S. became the nation's leading mapping agency. The U.S.G.S. began mapping Long Island around 1900, and produced a series of 15 minute (1:62,500) maps covering most of the Island in the years before World War I; since 1945, all of Long Island has been mapped on the now-standard U.S.G.S. 7.5 minute quadrangles on a scale of 1:24,000.

Bibles and Muskets:

The Acculturation of East End Native Americans in the Eighteenth Century

By John Charles Witek

This article seeks to demonstrate that one of the most intensive phases in the acculturation of Suffolk County's Native Americans was advanced, in part, by religious proselytizing associated with the Great Awakening, and by military recruiting for Britain's imperial wars in Canada and the northern colonies. At the outset, I would also like to note that apart from appearing in a variety of original documents and out-of-print sources, the Native American names in this report occur together in print for the first time. Many of these, such as Simon Neverfear, Westward Obe, Ned Nimrod, and Criss John Tallboy are so evocative that they almost suggest pictures of individuals who are lost to us otherwise. In addition to supplementing knowledge of local history, publishing them is intended to serve as a modest remembrance of these largely forgotten men and women, who once were familiar Suffolk County residents.

Well into the twentieth century, the concept of "The Vanishing Red Man" was a frequent theme in poetry, fiction and journalism. The same was true for images, such as James Earle Fraser's wildly popular equestrian sculpture, *The End of the Trail*, that depicts an exhausted Indian who might be slumbering, or dying. For a culture seeking to reassure itself of its own inevitability, another culture's eclipse is a compelling notion. Aside, however, from the popular appeal of such themes and images, the question of what *did* become of Long Island's original inhabitants cannot help occupying the historian.

Scholars like Gaynell Stone and John A. Strong have done much to recover the histories of the Shinnecock and Montauk peoples, and have made us well aware that descendants of these groups are with us still—both on Long Island and as offspring of the Brotherton settlers who migrated to Oneida County, New York, in the 1780s and eventually found their way to the shores of Lake Winnebago, Wisconsin.¹

But what of Suffolk's many Native Americans who can no longer be accounted for? Local documents offer tantalizing glimpses of individuals and entire families who are mentioned perhaps just once, and then vanish from the public record. In the following pages I will suggest that while many of these people removed themselves physically from Long Island, for others it is mainly the attrition of their culture, their Indianness, that makes them appear to vanish. Such was the effect of an acculturative process stemming from the poverty, privation, and loss that accompanied the

replacement of Indian polities and economies with colonial models.

Economic relationships between settlers and Indians, from the mid-seventeenth through the mid-eighteenth centuries, were the primary means by which elements of English culture, particularly language, took root among Native Americans and began to replace indigenous cultural elements. In examining the means by which cultural change was effected, language serves as a vivid indicator. By the end of the eighteenth century, only a handful of Indian survivors continued to speak local dialects. Fewer still had names resembling earlier appellations. In 1798, the Montauk George Pharoe told John Lyon Gardiner that “there were only seven people left who could spake [*sic*] the Montauk lanuague [*sic*], which in a few years would be gone forever.” Because language is a primary culture carrier and a vivid indicator of cultural change, the transition from local Algonkian dialects to English suggests a radical departure from traditional ways of life. The particular period when the identity of Long Island’s Indians as Indians eroded most severely probably occurred when their language was being supplanted most rapidly—a span of approximately a quarter of a century, bracketed by the initial stirrings of the Great Awakening in 1740 and the formal conclusion of the French and Indian War with the Treaty of Paris, in 1763. These dates and events are critical, because they demonstrate that missionaries and militarism may have played significant roles in diminishing native cultures locally.

Indian Populations

Studying Long Island’s Native American history is made difficult by an inadequate data base and a paucity of biographical information. While references in primary documents to specific individuals are essential for writing history, when such references to Indians occur at all they are usually imprecise. Searching colonial records for names of Indians in order to construct genealogies and link individuals to places and events is like trying to trace constellations of stars on a cloudy night. The problem is compounded by the ways in which Native Americans came by their names originally, and by the tendency of English and American writers to refer to Indians generically.

Traditionally, Indians did not possess inheritable surnames. The names of men lacking status, and of women and children, were not generally known, and a person’s name was likely to change through rites of passage or a variety of other reasons. Who was related to whom among bands of Montauks, Shinnecoeks, Corchaugs, and Manhansetts was committed to memory instead of to paper by Native Americans. While some local Algonkian names from the seventeenth century such as Wobetom and Manaman appear to have been inherited, the process by which this occurred is unclear.

When English colonists recorded the names of individual Native Americans, they generally did so for legal and official purposes—on deeds, whaling contracts, indenture papers, and censuses which named only male heads of households. For the most part, however, at least until the middle of the eighteenth century, when native people were written about it was mostly

just as “Indian,” or “squaw.” This tendency reveals an attitude among the settlers typical of colonizing groups, the assumption that members of indigenous cultures were separate from and unlike themselves, and that native people represented a stereotypical “other.”³

This inclination to regard their neighbors as different did not encourage the English settlers of Southampton, East Hampton, and Southold to record many specifics concerning the Native Americans with whom they came in contact. For example, although he dutifully numbered the conversions and baptisms that occurred during his mission to the natives of Long Island, the Presbyterian missionary Azariah Horton, in his several published journals, never mentions by name a single Indian to whom he ministered, nor describes any details concerning Indian ways of life. Instead, he prefers to speak of the women and men with whom he was in intimate daily contact as “My dear Indians,” and “My dear people.” How different was the Baptist, Roger Williams, whose religious philosophy encouraged him to see people as equals, and whose *A Key into the Language of America* is a vital document preserving the language and customs of a vanished American culture.⁴

In the face of a daunting absence of data concerning the personal histories of individual Native Americans on Long Island, researchers need to delve deeply. Perhaps the best starting point is attempting to estimate the population of East End Indians during the colonial period, so as better to understand the scope and context in which to place this inquiry.

In 1698, the population of Suffolk County was 2,679. The town of Southampton’s census for that year listed 152 Indians, cautioning, however, that “The hethen [*sic*] are so scattered to and fro that they can neither be summonsed in...” A tear in the manuscript obliterates the rest of the sentence, but the meaning is clear; unlike colonial villagers, who stayed put if they had the choice, Indians tended to rove, which made counting them difficult. Southold’s census of the same year tallied 41 “Indians, old and young...whose names cannot be known because not contant [*sic*] to any name &c.” Previously, Giles Sylvester recorded forty-two Indians working on Shelter Island in the 1680s, many of whom probably lived there including an uncounted number of women and children.⁵

In 1731, 715 Indians were reported living in Suffolk County. In 1742, when the population of the county numbered about 9,000 whites and blacks, Azariah Horton estimated that there were “almost 400 Indians upon Long Island, young and old.” Two decades later, Samson Occum’s census of the Montauk recorded 162 Indians living east of East Hampton, including the names of thirty-three heads of households.⁶

While exact figures are unobtainable, a county-wide Indian population of from four to eight hundred individuals seems probable for the early to mid-eighteenth century. Major epidemics among Indians before 1700, and severe episodes of disease after that, further complicate statistical assumptions. In the mid-1740s, Indians probably represented from 4 to 6 percent of Suffolk County’s population.

Religious Conversion

In 1717, Cotton Mather encouraged Long Island ministers “to do their best for Christianizing the Pagan Indians there, whose children are now generally in English families.”⁷ Despite this urging, before the Reverend Azariah Horton’s mission to the Long Island Indians, which began in 1741, little attention was paid to converting Native Americans to Christianity. Modest attempts to spread the gospel were undertaken by a number of ministers, missionaries, and laity, including George Fox, Jedediah Mills, and Thomas James, but none of these efforts was robust. On the other hand, Indians indentured as servants in colonial households undoubtedly heard the Bible read aloud on many occasions, and might have been encouraged to learn to read it, as English Protestants believed that reading the Bible was necessary for salvation.

The decade of the Great Awakening with its fervent revivalism, however, was a period of religious activism on Long Island. Evangelical ministers like James Davenport and Azariah Horton, both of Southold, preached to the Indians at Montauk. While Davenport’s mission was brief and self-supported, Horton carried on his work for a decade, and received a stipend for his efforts from The Society in Scotland for Propagating Christian Knowledge. From 1741 to 1751, Horton traveled between Montauk and the Rockaways preaching, doctoring, and educating the Indians of Long Island. His goal was to obtain conversions, and although he did not record many details about the Indians he met, he zealously enumerated the souls he hoped he had gained for Christ. Horton’s journals reveal a thoughtful and systematic approach to proselytizing, grounded in ideas such as the need for a clear understanding of God’s promises and a personal, individually-sworn covenant with God obtained as the result of a conversion experience. Drawing upon the dogma of Reformed theology, and anchored in the Calvinist formulations of the Westminster Confession, the process included both intellectual and emotional engagements. Statements by his Indian converts recorded in Horton’s journals suggest that emotionalism tended to predominate.

Azariah Horton began his work with public gatherings where he would instruct groups of from thirty to seventy Indians in the concepts of hell and damnation, and the prospect of salvation through Jesus Christ. In these efforts, he worked with and without translators—circumstances indicating that local Indian dialects were in a period of transition at this time, and that the Indians on the East End were well on their way to bilingualism. Individual and family counseling followed the public gatherings, and here, too, translators were sometimes relied upon, sometimes not. Indians affected by Horton’s teachings were brought under what he called “small” or “deep concern,” depending upon how moved they were by his teachings. It might then follow that one so moved would have “a saving change,” through which she or he would become enlightened and repent.

Recognition of sin and repentance brought with it “awakening,” after which it would be possible for an Indian to “own the covenant,” affirming

that she or he was in agreement with the Westminster Confession of Faith—the standard creed accepted by nearly all the English-speaking Presbyterian churches in the world. Baptism would accompany the procedure, and possibly the new baptismal names effectively replaced former, traditional appellations. Typically, husbands and wives and, frequently, squaws alone who owned the covenant, were baptized with children, who thus entered the Christian faith and acquired “church names” incidentally.

Precisely how Judeo-Christian concepts meshed with the animistic beliefs of the East End Indians deserves further study, but within the context of this report it can be said that the merger clearly advanced the acculturative process. One cannot help conjecturing, however, that mid-eighteenth century Presbyterianism, with its emphasis on original sin, damnation, and the frequent incidence of sin in peoples’ lives, must have, to some extent, wounded the egos of Horton’s converts, most of whom, as his journals reveal, were women. On 19 August 1742, Horton recorded in his diary that he spent most of the day teaching Indians to read and in private religious instruction.

One squaw particularly who spake of Christ in adoring and exalting terms, and of herself in the most abasing and self-abhorring language, one expression among many came from her mouth, which I shall note, viz. *O that I had wings to fly from my filthy self.*

Drunkness, sabbath-breaking, and a host of “rebellions and provocations against God” were familiar sins of the day, and recognition of them produced in Horton’s converts anxious responses, such as “Lord Jesus, take away my stony heart,” and “Save me or I perish.” The concept of drunkness as a sin must have been particularly wrenching for Indians, since they suffered disproportionately from alcoholism. In theological terms, drunkness could be considered the crime “of transforming God’s image into a beast.”⁸

Cognitive dissonance, the state of being at odds with one’s self, might well have been one negative result of the conversion process. This, together with the replacement of traditional Indian with Christian rites such as baptism and marriage, probably further eroded indigenous cultural values.

Horton established a school and encouraged reading to teach the Bible, observing that Indians were eager to learn to read and that he was not their only teacher:

I would observe that there is a remarkable forwardness in old and young to learn to read, especially in the children. I would also observe that there has been one Jacob Wickham, an Inhabitant of East Hampton, one week learning of them to read.

In December 1741, he noted that while at Montauk he conversed with an Indian who “could read in the bible, tolerably well, hard words excepted.”⁹

Earlier that August he reported having the pleasure of hearing some young, female converts, whom he called “new born girls,” sing “a hymn of Dr. Watts entitled ‘The Blessed Society In Heaven’ [which] they had got

partially by heart, having heard some English people often sing it, and when they could not remember the words, they kept the tune along."¹⁰ The language the Indians acquired from Horton and well-meaning laymen like Jacob Wickham was linked to religious core values—like Hebrew in modern Israel. When one's acquired language at its core expresses a supplanting culture's values, it can obscure certain values of the culture it supplants.

This is not to say that the traditional beliefs of Long Island's Montauks and Shinnecocks were overwhelmed by Christianity. In fact, many wrestled with their newfound faith and fell away from Presbyterianism during the ministries of both Horton and the Indian missionary, Sampson Occum, who became a school teacher at Montauk in 1749, a minister in 1751, and continued his work there, on and off, until 1761. Their new beliefs were significant enough, however, for Silas (Cyrus?) Charles to declare in a petition to New York's Lieutenant Governor Cadwallader Colden that he and his fellow Montauks:

Have discontinued their ancient barbarian way of living, and are become, not only civilized, but christianized...and willing to behave as good subjects to his majesty King George the third, and his Heirs and Successors, to do the Duty, bear the Burdens, and be entitled to the Privileges and Rights of faithful subjects.¹¹

Occum, the leading missionary to Indians of his day, and himself a Mohegan married to a Montauk, paradoxically found himself propagating England's language, customs, and faith, while simultaneously seeking to preserve Indian racial purity by discouraging Indians from marrying African Americans. Ultimately, wounded and disillusioned by his patrons' disinterest, Occum sought to remove Indians from white society and encouraged them to relocate from southern New England and Long Island to the Brotherton community on the Oneida reservation in upstate New York. Before the Brotherton movement gained momentum, however, a secular consequence of the missions of Horton and Occum was a furthering of the acculturative process, by which Indians became more conversant with the language and customs of their English neighbors. A likely effect of this was the increased acceptability of Indians in units of colonial militia.¹²

Military Service

According to the military historian, John Keegan, succumbing to want and hardship was, for the common people of the eighteenth century, the most common impulse to military enlistment—and privation was a reality for Long Island's Native Americans. More than anything else it provided the impetus for enlistment in provincial companies raised when England's forces needed bolstering in their protracted struggle with France for a North American empire. While Indians consisted of only about 4 percent of Suffolk's population, their percentage in military companies from 1746 to 1761 ranged from 5.5 to 32.¹³

Samson Occum, English engraving, 1808, courtesy of the East Hampton Free Library.

Queen Anne's War (1702-1713) (the American phase of the War of the Spanish Succession), a sporadically fought and inconclusive conflict, was the first instance of Long Island Indians' engaging in British military operations in the eighteenth century. During this war, the French and their Indian allies raided New England, while Port Royal, Nova Scotia, was captured by colonial and British troops. A 1711 account concern-

ing invoices for stores imported to New York for use in the expedition against Canada links the name Gerrit Viele (Veale?) with "44 Long Island Indians," and states that "the Indians are paid out of the Stoops 1711 Albany 7 Deer [sic]." Although the wording is not precise, it verifies that Long Island Indians participated in Queen Anne's War, and were probably part of Colonel Richard Ingoldsby's regiment.¹⁴

Two years after the outbreak of King George's War (1744-1748) (War of the Austrian Succession), James Fanning of Suffolk County was authorized to raise recruits. Captain Fanning's 1746 roll of Suffolk County militia mustered for an expedition against Canada is the earliest extant muster roll naming Native American volunteers from Long Island. New York State librarian George Rogers Howell noted that the names on the roll

occupied two and a half columns, which were followed by a column and a third of other names with sufficient separation to indicate that the names were those of Negroes and Indians and half-breeds. There were 38 names in this list of which 16 were characterized as Indians, two as Negroes, two as Musters [mulattos] and 18 not characterized.¹⁵

Listed among the Negroes, Indians, and Musters are: Nimrod Indian; Stephen Indian; Sam Brooks Indian; Sogian Indian; Tom Kerwise; Charles Mahain; Archa Bell Muster; Ned Nimrod; Dick Indian; Charles Fox; Arthur Warrison;



Daniel Quinny; Japeht Negro; Sam Mahain; Jo Wells Indian; David Lupton Indian; Simon Munniss; Sampson Indian; Moses Indian; Robin Indian; Harry Jaccus; Jethro Peter; Sam Pewagen; Jo Will Indian; Jacob Surroot; Sam Indian Curn'll; Stephen Surroot; Honnos Dumshun; Peter Solomon Indian; Sam Chebogue; Jo Miller Indian; James Floyd Indian; Sam Mahain Jun'r; Charles Muster; Daniel Jarnat; Tom Mahain; Felix Negro; and Capt Will Indian.¹⁶

Of these, Nimrod and, very likely, Ned Nimrod, Robin Indian, and Jethro Peter are persons named in Samson Occum's census of the Montauk. Also found are names repeated in future muster rolls, such as Jacob Surrot who reappears at the age of forty-four in a roll of 1760. The death of Indian Sogian (Segian, Sigion, Saugion) is later reported in a record of 1759. The "Moses" of Fanning's 1746 company is almost certainly Moses Gonack, a Montauk of repute, whose full name appears again in Fanning's company of November 1747, together with Sigion Indian, Dick Indian, Nimrod, and Sampson. A subject of local legend after his death by drowning in 1767, Moses Gonack is possibly the father of Josiah and Hannibal Gonnick, whose names also appear in Suffolk County muster rolls.¹⁷

The random muster rolls of provincial militia that have survived are precious, because they preserve not only the names but sometimes physical descriptions of Native Americans who are not mentioned in other sources. Some of the names can be associated with particular families and lines of descent, and several fair assumptions as to group affiliations can be made for others. It is especially interesting to observe names that recur. Presumably, the income provided by short-term enlistments was the main inducement to risk hazard and hardship far from home. Fanning's 1746 company consisted of 104 men, 36 percent of whom were non-white.¹⁸

Enlistments rose as military commitments in New York and Canada intensified, particularly during the heated engagements between 1758 and 1760, when British forces in upstate New York needed increasing assistance from provincial troops. Of New York's quota of 1,680 soldiers, Suffolk County contributed 289 who, in 1758, served efficiently in the attacks on Fort Frontenac and Fort Ticonderoga (called Fort Carillon by the French), and, in 1759, were present at the capture of Fort Niagara.¹⁹

I have discovered more than a dozen such muster rolls that, with their descriptions of officers, non-commissioned officers, and enlisted men, offer a rich source for future scholarship. However, the following list is only of the officers and the Indians who enlisted in their companies, with comments on the little that is known about several Indian names that can be associated with other information. The words *mollatto*, *muster*, and *mustee* signify persons of mixed blood. Original spelling has been retained.

Companies Mustered for the French and Indian War (names of officers are followed by those of enlisted men)

31 March-6 May 1758: Captain Alexander Smith, Lieutenant Jacob Smith: Ned Killis, Simon Neverfear, Captain Indian, Amos Lane Indian, Daniel

Indian, Indian Marel, Robin Fisher Indian.

Captain Thomas Terry, First Lieutenant Barnabas Tuthill, Second Lieutenant Israel Horton: Criss John Tallboy, Segian Indian, James Indian, Samuel Mollato.

Captain Elias Hand: Philip James Indian, Harry Persons Indian, Cuff Mollato, Joseph Jeffrey Indian, John Indian, Solvester Indian, Josiah Gonnick, Jacob Weaget Indian, James Warbaton Indian.²⁰

Musters were commonly raised for only a month or two at a time, and many militiamen signed up for several terms. Among the names listed above are Ned Killis, a prominent Shinnecock surname, and the Montauks Josiah Gonnick and James Warbaton, the latter a derivation of Wobetom, a name recorded as early as 1687.²¹

May 1758: Captain Elias Hand of Southampton, First Lieutenant Daniel Topping of East Hampton, Second Lieutenant George Herrick: (Eastern battalion) Josiah Musett, Cuft Mollato, Joseph Jeffrey Indian, John Indian, Bristol Muckett, Philip James Indian, John Peter Indian, Solomon Mulatto, Harry Porus, Solester Indian, Jacob Weagut Indian, Josiah Gonwick, Peter Husree, James Warbaton; (Western battalion) Simon Neverfear, Ned Killis, Captain Indian, Scudder Sampson free negro, Amos Lane Indian, Danial Indian, Joseph Nickle Molatto.²² These men probably served in the expedition against Fort Ticonderoga under Major Nathaniel Woodhull, who commanded battallions raised in eastern and western Suffolk County.

April-May 1759: Captain Gilbert Potter, Lieutenants Jesse Platt and Joseph Brewster: Peter Indian, Sam Pewagen, Ludlow Wagan, Amos Lane, Charles Killis, Nemus Indian, Simon Indian, John Clink Indian, Hue Manemum, Molato Killis, Jacob Surut.²³

A fragment of information about Lieutenant Platt indicates that on 11 May 1759 he remained at Huntington with about forty men who had contracted measles.²⁴ Since disease killed more soldiers than combat at this time, the brief mention of measles brings to light a principal hazard of military service. Indians, in particular, were susceptible to illnesses which white people stood better chances of resisting.

April-May 1759: Captain Barnabas Tuthill, Lieutenants Daniel Gouldsmith and Daniel Griffin: John Wampanage, Nemus Killis, Peter Indian, Stephen Indian, John Ryness Indian, Charles Manemun.²⁵

March, April, May 1759: Captain Stephen Sayre, Lieutenants Jonathan Baker and Elias Halsey: Anthony Fowler, Adam Pharow, Coffe Thomas, Lawrence Poyheg, Daniel Cocheahs, Daniel Minor, Joseph Jeffry, John Wabbington, Ned Gardiner, Josiah Gonnock, Harry Indian, John Quiamps, Eliphalet Poshiter, Charles Sharper, Harry Doras, Joash Indian, Samuel Wags, Benjamin Muck, Charles Powheag, Peter Pawheag, Hannibal Gonnick, Isreal Dewe, John Wags, Harry Mustee, John Charles, Sampson Indian, Cuffee Cuffe.²⁶

Lists from spring 1759 bring to light, for the first time in connection with military service, the well-known names Fowler and Pharoe, many of whom

were living among their fellow Montauks at this time. Cuffee Cuffe lived for a while on Shelter Island, and so might have Joseph Jeffrey and Josiah Gonack. The intriguing name Ned Gardener may hark back to Indians indentured to or sired by a member of the eminent Gardiner Family. Wabington, like Warbaton mentioned previously, derives from Woebetom. In 1816, a James Waberton was a Shinnecock trustee. The name Manemum, of which there are two, first appeared in a Southampton whaling contract between Richard Howell and a whaler named (Mah)manamon in 1674. In 1703, a deed was signed by a Mahanum, described as a Sachem acting on behalf of the Shinnecock people. The names Elizabeth and Charles Manaman appear on 1793 land agreements recorded in the *Shinnecock Indian Records Book No. 2*.²⁷

May, June, July, August, September 1759: Captain Thomas Terry, Lieutenants Barnabas Tuthill and Israel Horton: Indian Daniel, Robin Killis, Indian Saugion, Indian James, Tall Boy John Criss, Joseph Nickles. The notes that accompany this muster roll indicate that "Saugion," who had enlisted twelve years before with James Fanning, died on 9 September. Indian James died on the 20th, Tallboy John Criss on the 27th. Indian Daniel and Robin Killis are noted as having gone with the ranger leader, Major Robert Rogers, who probably needed them as scouts.²⁸

Further insight into these events is provided by an avocational historian, Henry Vail, who uncovered the Terry muster roll in a collection of family papers and reconstructed the campaign of 1759. According to Vail, Terry's company went from eastern Long Island to Albany and then to Fort Schnectady, then a frontier post, to link up with troops under General Prideaux. Leaving Schnectady on 20 May they traveled by bateaux on the Mohawk, Onondaga, and Oswego Rivers to Fort Oswego. They left Fort Oswego 1 July and coasted along the southern shore of Lake Ontario until landing within six miles of the mouth of the Niagara River.

Prideaux's troops then besieged Fort Niagara, resulting in the general's death on the 19th by the premature explosion of a shell. His replacement, Sir William Johnson, soundly defeated the French under Captain Pouchot, who surrendered the fort on 25 July. The victors returned home soon after.²⁹

Several muster rolls that have survived from 1759 and 1760 provide surprisingly detailed descriptions. In addition to names, they state date of enlistment, age, place of birth, trade, height, distinguishing features, and names of the enlisting officers. It would appear that as more men were needed for northern battles, greater care was taken to identify them to foil desertions. Under the heading "trade," all Indians are described as "laborers," marking them as the least skilled in a force composed largely of weavers, sailors, farmers, coopers, tailors, and other occupations. Their knowledge of woodcraft, tracking, and survival strategies, however, probably made them valuable allies. In the following listing of soldiers, officers' names are separated by colons from those of enlisted men.

April 1760. Captain Israel Horton, Lieutenants Daniel Griffin and Thomas

Veal: Toby Jeffry, Josiah Mustee, John Quinumps, Nemos Killis, Daniel Freeman, Tim Indian.³⁰

April 1760. Captain Jonathan Baker, Lieutenants Stephen Pearce and Benjamin Wilson: Jo Peter, Harry Indian, John Ruckett, Robin Nero, Ocus Indian, Josiah Gonack, Edward Penniman, Daniel Hamor, Moses Mazene, Samual Wags, Cuffe Thomas, Moses Sheep Cock, Warisose Indian, James Sheroot, Charles Pauheage, Absolam Cuffee, Cuffe Cuffe.³¹ An Absolom Cuffee was elected a tribal trustee at a Shinnecock town meeting in 1793. A Jeremiah Ocus and a William Ocust are noted in the Shinnecock records of 1794.

April 1760. Captain Jesse Platt, Lieutenants Nathaniel Satterly and Jonathan Davis: Stephen Abner Indian, Robin Indian, Benjamin Toms, James Cason, Daniel Hutchins, Stephen Dayton, John Abater, Indian Caleb, Robin Jacquan, David Indian, Tone Sell, Jacob Sarout. Charles Killis, Peter Cogchene, Tom Cuff, Harry Jacus, Charles Petequam, Mathew Indian, Solomon Indian, George Indian, Westward Obe, Killis Molatto, Richard Jonathan. The name transcribed as Jacquan may have originated with a Shinnecock named Chanaquam, whose name and mark appear on a document from 1666 endorsing the right of several Indians to sell land to Thomas Topping. The name Chanaquam also appears in other seventeenth-century documents as Johnaquan, Johnaquid, and John Aquam (1675). Pataquam, a "native of Unquachoke," was recorded in 1700.³²

? 1761. Captain Jesse Platt, Lieutenants Daniel Roe and Joshua Rogers: Thomas Cuff, Mortis Indian, Jacob Serute, Jacob Indian, Daniel Sampson, James Sambo, Abraham Sampson, Jeffry Arthur, Amos Lane, Caleb Indian, Joseph Sepharos, Abner Indian, Thomas Centurian.³³ Jacob Serute's name appears again after its first appearance in 1746. Jacob Indian is possibly a progenitor of Abraham Jacob and David Jacob, who were Shinnecock trustees between 1792 and 1816. Sepharos is probably a misspelling of Pharoe—a Joseph Pharoe was head of a Montauk household noted in the Occam census of 1761.

? 1761. Captain Daniel Griffin, Lieutenants Abraham Dayton and John Fowler: Samuel Ruckett, Isaac Ruckett, John Fowler Indian, Daniel Indian, George Jamaica, Nathaniel Harper Indian, Jacob Zacharia Indian.³⁴ An interesting distinction occurs here between the two John Fowlers, one white, one Indian. Samuel Ruckett, a Shinnecock trustee in 1794, was possibly related to Peg Ruckett who is mentioned, along with him, in the Shinnecock records that year.

The war that took Montauks and Shinnecoeks hundreds of miles from Long Island led to the culmination of more than a century of struggle between Britain and France for the domination of North America. It was a war characterized by formal sieges and troop movements, combined with the types of raids and skirmishes familiar to Native Americans. Battles between provincial volunteers and European regular units foreshadowed the American Revolution.

For impoverished Native Americans, the pay received by militiamen was

the principal inducement for enlisting. Toward the end of the conflict, in April 1761, men signing up as privates were paid a bounty of 15 pounds “enlisting money,” plus one shilling, three pence a day for the term of their enlistment. In addition to tents and other essential equipment, they were provided with one hat, one coat, one pair of buckskin breeches, two shirts, two stockings, two pairs of shoes, and one blanket.³⁵ These were considerable possessions for poor Indians, some of whom were described in contemporary accounts as living in rags.

If enlisted Indians fared well, their officers did even better. Officers were paid about twenty shillings for every man they recruited, which, when added to their own salaries, made organizing military companies good business. Indeed, Britain paid so much to prosecute the war that it effectively bankrupted its treasury and found it necessary to impose heavy taxes on its American colonies, leading to enmity and revolution.

On the whole, the British were unimpressed by the military potential of provincial troops. The colonists, on the other hand, witnessed their own ability to confront professional soldiers. Since almost nothing is known of how East End Indians comported themselves in the war, it is impossible to ascertain how they were regarded by their white counterparts from Suffolk County.

I suspect, however, that the historical novelist, Kenneth Rogers, had it right when his *Northwest Passage* protagonist, Langdon Towne, described his feelings about the Indians with whom he served:

I know now that Indians are a peculiar people and cannot be judged as white men are judged. I have learned that some of them are so direct and honest in their manner of thinking that they are as wise, in many ways, as the wisest of white men; but most of them are simple to absurdity—so simple that they can only be depended on to do the wrong thing: to waste food when it should be saved: to rely on dreams when reason is essential: to be reckless when caution is advisable and cautious when recklessness is imperative: to lie when truthfulness is required, and to tell the truth when tactful evasion is preferable: to run home when they are most needed, and to get under foot when they are least wanted.³⁶

Towne’s failure to understand Indians speaks volumes about the prejudices that existed before anthropology objectified human behavior for analysis. Comrades in arms or not, Indians were still “the other,” and in many ways have remained so.

The New Republic

Paying and outfitting Suffolk County militiamen for northern campaigns was one small part of the tremendous financial burden sustained by Britain to prosecute the French and Indian War. The Stamp Act of 1765, which Parliament passed to help replenish the treasury, was resisted heatedly by the colonists, and their opposition to “taxation without representation” set the

stage for revolution.

During the War for Independence, East End Indians either remained aloof from the conflict, or actively favored the British. "I have had an interview with the Montok Indians on Long Island," Colonel Guy Johnson wrote to his superior, Lord George Germain. "Tho' few in number and surrounded by disaffected people, [they] have offered their services whenever the General shall please to make use of them."³⁷ In spite of their loyalist sympathies, however, Indians suffered with other Long Islanders during the long British occupation. Normally, Indians were able to earn a few shillings a week as farm hands, but countless farms now went neglected, when patriot owners abandoned them to wait out the war in southern New England.

In the new republic's opening decade, better to control Indian lands and provide reliable personnel for entrepreneurial endeavors, Americans sought to establish among Indians the ideas of tribes and headmen. This became firmly established on the East End in 1792, when the state of New York instituted a trustee system among the Shinnecock that could witness the "hiring" (renting) of Indian lands to white farmers.

The contracts and covenanting involved in military enlistments and religious conversions probably developed in Eastern Long Island's Native Americans a greater awareness of the importance of formal, written agreements and hierarchical authority that were the core of colonial value systems. Having participated more widely than before in the religion and military affairs of their white neighbors, they acquired more of the customs and language of what had become Long Island's dominant culture, while simultaneously losing material and non-material aspects of their own ways of life. In spite of increasing acculturation, however, white people continued to view Indians as unpredictable and unreliable, because Shinnecoeks and Montauks continued to be governed by older customs built upon an egalitarianism and observation of natural cycles that did not correspond to Western religion and value systems. Regrettably, in spite of increasing interaction between whites and Indians, mutual acceptance was delayed indefinitely.

NOTES

1. See Gaynell Stone, "Long Island as America: A New Look at the First Inhabitants," *LIHJ* 1 (Spring 1989):159-69; John A. Strong, "How the Land Was Lost," in Gaynell Stone, ed. *The Shinnecock Indians: A Culture History, Readings in Long Island Archaeology and Ethnohistory* 6 (Stony Brook: Suffolk County Archaeological Association (SCAA), 1983):53-103; for Brotherton, see Stone, "Long Island as America," 165-66.
2. Sarah Diodati Gardiner, *Early Memories of Gardiner's Island* (East Hampton, 1947), 80-81.
3. See John A. Strong, "Shinnecock and Montauk Whalers," *LIHJ* 2 (Fall 1989): 29-40.
4. Azariah Horton, "Journals," 3 vols., in *The Christian Monthly History* (Edinburgh: Fleming & Alison, 1744) 5 (March-August 1744); Roger Williams, *A Key into the Language of America* (1643; reprint, Detroit: Wayne State Univ. Press, 1973).
5. *History of Suffolk County, New York: (New York W. W. Munsell, 1882), 61, 62; Documentary History of New York (Albany, 1850) I:669, 673; John C. Witek, "The Lives and Identities of the Indians of Shelter Island," LIHJ (Spring 1992):175-76.*

6. *History of Suffolk*, 62; Horton, 16; Gaynell Stone, ed. *History and Archaeology of the Montauk Indians, Readings in Long Island Archaeology and Ethnohistory* 3 (Stony Brook: SCAA, 1979):149.

7. *Diary of Cotton Mather* (Massachusetts Historical Society, *Collections*, 7th series, 2 (1912):512.

8. Horton, 10; Abigail Fithian Halsey, *In Old Southampton* (Southampton, 1940), 53.

9. Horton 2:49.

10. Horton 3:37.

11. *Documentary History of New York*, 390.

12. For Occum, see Harold Blodgett, *Samson Occum* (Hanover, NH: Dartmouth College Publications, 1935); for Occum's marriage, see *ibid.*, 40.

13. By dividing total enlistments in companies studied by numbers of clearly Indian names I created the following table:

Commanding Officer	Year	Percentage of Indians
Capt. James Fanning	1746	25
“ “ “ 1747	7.5	
Capt. Elias Hand	1758	11
Capt. Alexander Smith	1758	7
Capt. Thomas Terry	1758	5.5
“ “ “ 1759	6	
Capt. Gilbert Potter	1759	10
Capt. Stephen Sayer	1759	32
Capt. Barnabas Tuthill	1759	12
Capt. Jonathan Baker	1760	19.5
Capt. Israel Horton	1760	8
Capt. Jesse Platt	1760	20
“ “ “ 1761	22	
Capt. Daniel Griffing	1761	22

14. *Third Annual Report of the State Historian of the State of New York* (Albany: Wynkoop, Hallenbeck, Crawford Co., 1898), 488; for the almost continuous warfare between Anglo-American and French forces, in which both sides had Indian allies, and which lasted from 1689 until 1762, see Howard H. Peckham, *The Colonial Wars 1689-1762* (Chicago: Univ. of Chicago Press, 1964); for Queen Anne's War, see Peckham, 60-75).

15. *Second Annual Report of the State Historian of the State of New York* (Albany: Wynkoop, Hallenbeck, Crawford Co., 1897), 624. Fanning's original roll—one of a small, incomplete collection—was virtually destroyed by fire in 1911. Were it not for this report, which preserves the thirty-eight names, we would be without this unique and important record; George Rogers Howell to *Sag Harbor Express* (undated clipping in O. B. Ackerly, *Historical Scrapbook* (East Hampton: East Hampton Free Library, 38); for King George's War, see Peckham, 97-119.

16. Muster Roll of the Company of James Fanning, East Hampton Free Library.

17. *Ibid.*; references to East End residents named Gonack (or Gonwick, Gonnock, or Gonnick) are common in primary documents of the eighteenth century. Two Long Island place names incorporating versions of the Algonkian word gonack exist, and several stories about Moses and a Luce Gonnick survive, indicating that extended families such as the Gonacks peopled Suffolk's East End. A Gonack family lived on Shelter Island in the 1750s and 1760s; the final references to this name are Prudence (1793) and Jane Gonnack (1794), noted in the records of the Shinnecock trustees (see Gaynell Stone, ed. *Shinnecock Indians*:150-51).

18. Muster Roll of the Company of James Fanning.
19. *History of Suffolk County*, 30; for the bloody defeat of the attackers of Ticonderoga, July 1758, see Peckham, 167-69 (the French abandoned the fort to Lord Jeffery Amherst one year later); for the capture of Fort Frontenac, August 1758, see 173-74; for the taking of Fort Niagara, July 1759, see 181-84.
20. *Second Annual Report*, 858-60.
21. Gaynell Stone, ed. *Early Papers in Long Island Archaeology, Readings In Long Island Archaeology and Ethnohistory* 1 (Stony Brook: SCAA, 1977):17-18; for the listing of Wobetom, see East Hampton Town Records 2:213-14 (meeting of 25 July 1687).
22. *Colonial Documents in the New York State Library*, 86:5.
23. *Second Annual Report*, 945-48.
24. *Third Annual Report*, 527.
25. *Second Annual Report*, 948-50.
26. *Ibid.*, 950-53.
27. Stone, ed., *Shinnecock Indians*: 92, 151.
28. Henry H. Vail, "Some Records of the French and Indian War," *Geneological Record* (April 1895):1-6.
29. *Ibid.*, 1-3.
30. *Second Annual Report*, 569-71.
31. *Ibid.*, 572-74.
32. *Ibid.*, 575-78; Stone, ed., *Shinnecock Indians*: 80, 102, 251; for Pataquam, see *Records of the Town of Brookhaven, Book B*, 1679-1756 (New York: Derrydale Press, 1932):358-59.
33. *Second Annual Report*, 642-43.
34. *Muster Rolls of the New York Provincial Troops 1755-1764*, in *Collection of the New-York Historical Society for the Year 1891* (New York, 1982):406-7.
35. *Third Annual Report*, 531.
36. Kenneth Rogers, *Northwest Passage* (Garden City: Doubleday and Doran, 1937), 119.
37. E. B. O'Callaghan, ed. *Documents Relative to the Colonial History of the State of New York* (Albany: Weed, Parsons & Company, 1857):8:714

Lewis Howard Latimer: The Career of a Black Inventor

By James P. Johnson

Since the second World War, historians have rediscovered many hitherto-neglected American blacks, including a Long Island draftsman and inventor, Lewis Latimer. The son of slaves, Latimer left school at the age of ten but still contributed significant inventions to the electric lighting industry. Not only has Latimer been rediscovered, however, in the tradition of “There’s always a black man at the bottom of it doing the real work,” he has been mythologized. Given his background, Latimer played an amazingly outstanding role in the growth of the lighting industry, which may have led to his being given credit for inventions he did not make.¹

During Black History Month, 1991, New Jersey Governor James Florio set out “to fight lies with truth,” and then perpetuated the most widely-believed Latimer myth with the statement that, “Thomas Edison is praised in every history book, but an African-American inventor named Lewis Latimer has been ignored. He invented and patented the incandescent light bulb in 1881.”² Latimer also is said to have invented the screw-in lamp socket.

Did a jealous Edison steal the idea of the light bulb from a humble black draftsman? Is this an instance of “The Brilliant Worker and the Jealous Boss,” as Rutgers Professor Robert Rosenberg, the editor of the papers of Thomas A. Edison, has titled this myth? Clearly not. In such versions of Latimer’s work, Rosenberg has written, Latimer becomes “one cartoon figure whose work is stolen by another cartoon figure.”³

A new collection of Latimer’s papers was recently salvaged by William Asadorian, the archivist of the Long Island Division of the Queens Borough Public Library. The collection reveals the breadth of Latimer’s important role in the lighting industry, includes his extensive library and a model of a lighting apparatus, and has many photographs of the inventor, his drawings, awards, and other materials.⁴

A quiet, sincere man, who lived much of his adult life on Holly Street, Flushing, Latimer would no doubt have chuckled over the way supporters have credited him with inventing the light bulb. This Long Islander was proud of his real accomplishments. “I was,” he wrote in his journal, “one of the pioneers of the electric lighting industry, from its creation until it had become worldwide in its influence.”⁵ But Latimer never claimed to have invented the light bulb, and these papers both document his significance and



*Lewis Howard Latimer.
Photo, Thomas Alva Edison
Foundation.*

debunk the myths that have grown up around him.

Governor Florio's speechwriter notwithstanding, Thomas Edison, not Lewis Latimer, invented the light bulb in 1879. But the early bulb, which used carbonized-cotton sewing thread, among other things, as filaments, burned out quickly. For visitors who flocked to his Menlo Park, New Jersey, laboratory in 1879, Edison and his men lighted the streets, the laboratory, the office, and the library with the revolutionary incandescent lamps, which glowed for two nights and one day, but then died.⁶

In 1881, after Edison invented the light bulb, Latimer patented a method of mounting the carbon filaments to the wires in the lamps, and, in 1882, devised a system of manufacturing the filaments, a technique which made light bulbs cheaper. Latimer also designed a lamp that bears his name, but which is not patented.⁷

The third son of George Latimer, a slave who, with his pregnant wife Rebecca, fled from slavery in Virginia to freedom in Boston and was defended by William Lloyd Garrison, Latimer launched a distinguished but improbable career. Born in 1848, Lewis was a bright boy who studied the flute and violin, did well in school, worked at his father's side as a

paperhanger, and hawked Garrison's abolitionist paper, *The Liberator*.

In 1858, when Lewis was ten, perhaps to avoid being seized as a runaway under the Fugitive Slave Act of 1850, George Latimer deserted the family. We can neither recapture nor document the degree of pain felt by Lewis when his father left, but everyone in the family seems to have suffered. Lewis had to drop out of grammar school to work. Then, as the difficulties at home continued to mount, his mother deposited him and his older brothers in a farm school (a state institution) in Springfield, Massachusetts, where the boys lived, boarded, and earned a little money in nearby business establishments. Lewis hated it. With his brother William and a white friend, he ran away.⁸

This defiance seems to have convinced his mother that, at the age of thirteen, he needed her, so she took him back and saw that he got a job as an office boy in the Boston law offices of Isaac Hull Wright. All three brothers joined the Union Army during the Civil War, but to do so, Lewis had to lie about his age. He served on the USS *Massasoit*, a side-wheel gun boat, even seeing action in the James River not far from where his parents had been slaves. After leaving the army, Latimer, whose formal education ended when he was ten years old, began to search for some kind of career.

He could not find a job until a female friend recommended him to Crosby and Gould (later Crosby and Gregory), a law firm specializing in patents, that wanted an office boy "with a taste for drawing." Seeing a man in the firm "making drawings, he [Latimer] watched to find out what tools he used; then [he] went to a secondhand bookstore and got a book on drawing." During the next eleven years, Latimer taught himself drafting and did his work so well that, despite the racial prejudice of the time, he rose from office boy to head draftsman, from which position he supervised the construction of the working models of inventions required by the U.S. Patent Office.

Lewis grew into a straight-backed man who kept his hair short all his life and favored bow ties and ascots. His rimless glasses, which sat on a broad nose, drew attention away from his downturned mouth, topped by a thin mustache. Few knew whether Latimer's sober mien signified some unexpressed sadness from his youth, but it was obvious to all his coworkers that Latimer was what he appeared, a serious, precise, and even academic worker who analyzed mechanical things well and who could think for himself.

In the early 1870s, he fell in love with Mary Wilson, of Fall River, Massachusetts, whom he married on 10 November 1873. The Latimers had two devoted daughters, Emma Jeanette and her younger sister Louise. Perhaps reacting to his own troubles in a fatherless home, Lewis and Mary Latimer created a close-knit family. The Latimers played music together for recreation, including some tunes which Jeanette wrote and Louise illustrated. Jeanette's musical gifts led her to the Julliard School of Music, and Louise's interest in art took her to Pratt Institute and later into teaching. Lewis Latimer wrote poems for pleasure, one of which he dedicated to his wife:

Ebon Venus

Let others boast of maidens fair,
 Of eyes of blue and golden hair;
 My heart like needles ever true
 Turns to the maid of ebon hue.

I love her form of matchless grace.
 The dark brown beauty of her face,
 Her lips that speak of love's delight,
 Her eyes that gleam as stars at night.

O'er marble Venus let them rage,
 Who set the fashions of the age;
 Each to his taste, but as for me,
 My Venus shall be ebony.¹⁰

The year he married his "maid of ebon hue," Latimer began to invent. He and W. C. Brown, a colleague, received a patent for "Water Closets for Railroad Cars," which included a system whereby the drain pipe would close when the seat was lifted and open when it was lowered.¹¹

By coincidence, Latimer worked near the school where Alexander Graham Bell taught deaf-mutes. When Bell's tinkering on a machine to enable deaf persons to hear led him to invent the telephone, Bell hired the firm of Crosby and Gould to help him apply for his patent. To execute the required drawings, Latimer recalled, he "was obliged to stay at the office until after 9 p. m. when he [Bell] was free from his night classes to get my instruction from him, as to how I was to make the drawings for the application." Electricity, Latimer learned, was the great new energy.¹² He had gotten in at the beginning of one of the key economic developments of history. But then, for unknown reasons, Latimer left Crosby and Gould. In 1879, a discouraged but determined Latimer moved to Bridgeport, Connecticut, where his sister lived, and went back to paperhanging.

While Latimer was rendering some mechanical drawings in a machine shop, shortly after Edison invented the light bulb, "a stranger came in and expressed himself delighted to find a draughtsman, as he had for weeks been looking for one to make some Patent Office drawings for him. This stranger proved to be Sir Hiram Maxim of gun fame." Hiram Stevens Maxim, one of the founders and the chief engineer of the United States Electric Lighting Company, recognized Latimer's drafting talent and hired him as an assistant manager and draftsman.¹³

U.S. Electric, Latimer wrote, was "perfectly alive with inventors." Once working with electricity again, he learned all he could about the light bulbs Maxim made, which, like Edison's, burned out rapidly. Locked in a patent war with Edison about who owned the rights to the incandescent light,

Maxim moved his firm to New York City, in 1880. Latimer and his wife came with him. Until the patent battles were settled, Maxim's and Edison's firms competed fiercely for contracts to wire and light buildings.¹⁴

With Joseph V. Nichols, a coworker at United States Electric Lighting Company, Latimer, in 1881, invented a method of connecting the carbon filament to the lead wires at the base of the electric lamp. Maxim named this the "Maxim electric lamp," in which he installed the new Latimer filaments, manufactured in the form of an *M*.¹⁵

Meanwhile, Latimer worked out his method for improving carbon filaments, and, on 19 February 1881, applied for the patent on "The Process for Manufacturing Carbons." He discovered that putting the material to be carbonized (usually strips of paper or wood) into cardboard envelopes gave the carbonized filaments firmness and shape. He was granted the patent on 17 January 1882, but, as required by his situation as an employee of United States Electric Lighting, he assigned the patent to the company, which profited from the cheaper, longer-lived filaments made using Latimer's system.¹⁶

Latimer and his associate, John Tregoning, also invented a base, but not a screw-in socket, for electric arc lamps which produced light when a current jumped the gap between two carbon rods. Named the "Globe Supporter for Electric Lamps," and patented 21 March 1882, this device allowed the "passage of the carbons [through the supporter] and was provided with end clasps to the side rods of the lamp which receive and clasp between them the globe." This patent also was assigned to the United States Electric Lighting Company. The arc lamps, however, made too much noise and burned out too quickly to become popular.¹⁷

When Maxim received contracts for scores of buildings in 1881 and 1882, Latimer supervised the installation of electric lighting systems in the Equitable Building and the Union League Club, among others. "Our method of figuring," he recalled, "was that it was a good guess that that size wire would carry a certain number of lamps without dangerous heating. A number of mysterious [sic] fires about this time were probably the fruit of our ignorance." Learning from their experiences, Latimer and Maxim installed the lighting system in the *Philadelphia Ledger* building without incendiary result.¹⁸

Latimer then went to Montreal, Canada, where he supervised French-speaking workers as they installed the lights in the railroad station and yards of Hochelagad. To do this, he had to practice his French. "This was my nightly lesson," he wrote. "My day was spent climbing telegraph poles and locating arc lamps on them with the assistance of my laborers who seemed much impressed with my effort to speak their native language."¹⁹

Later in 1882, Latimer sailed to London, with Mary, where he set up a British corporation for Maxim, the Weston Electric Light Company, to produce carbon filaments using the method he patented. Although the British, with their imperialist outlook, were unaccustomed to taking orders from an African American, Latimer's manufacturing system made Weston Electric profitable. "My assistant and myself," Latimer wrote,

were in hot water from the first moment to the end of our engagement, and as we were incapable of assuming a humility we could not feel, there was a continual effort to discount us, and to that end the leading men would ask us about some process and failing to perform it would write the U. S. saying that we did not understand our business. The people in the U.S., having tested us in many cases simply wrote to us repeating the charge, and we would see the leading men and explain and demonstrate the process [which was] to them so obscure. In nine months time we had the factory in running order with every man familiar with the particular branch of the manufacture which fell to him, and as our ease and independence was setting a bad example to the other work men, we were released from our contract and permitted to return to the U.S. Here we found the ranks closed up and every place filled.²⁰

Latimer was out of a job with Maxim, but soon joined the Olmstead Electric Lighting Company, in Brooklyn, as draftsman and chief of lamp construction. During a later association with the Acme Electric Company, in Manhattan, he oversaw the manufacture of lamps called "Latimer Lamps," but Acme, like Olmstead, went out of business. Latimer then assisted Charles C. Perkins, of the Imperial Electric Light Company, and went with him to Hartford, Connecticut, where they worked for Mather Electric Company.²¹

Edison, of course, had learned of Latimer's drafting skills when Maxim used Latimer's drawings against Edison in patent fights. In 1884, after accepting Edison's offer of a job in Manhattan, Latimer moved to Long Island where he commuted to work at the Edison Electric Light Company, on Fifth Avenue. There he helped Edison defend his own patents in court by testifying about the technology, and by drafting diagrams and exhibits. Latimer, who became one of Edison's key aides, was eventually included in the select group of Edison Pioneers, people who had "pioneered" with Edison from the earliest days and who wanted to gather, from time to time, "to do good deeds in his name." Those accepted into the Pioneers felt that they had been part of shaping history. Although Latimer stayed in Queens for the rest of his life, another myth maintains that the inventor and draftsman somehow worked at Edison's West Orange "invention factory." It is a testimony to Latimer's skills that he was accepted into the Edison Pioneers, and was the only African-American member, without having worked in the "invention factory."

In Flushing, where he and Mary raised their two daughters in their Victorian home on Holly Street, Latimer wrote *Incandescent Electric Lighting: A Practical Description of the Edison System*, published in 1890. Written in lucid prose, this first book on electric lighting not only explained Edison's system but became a standard work in the field. Latimer also helped Edison in his major legal triumph over Maxim, the upholding of Edison's patent to the incandescent bulb by the U.S. Circuit Court of Appeals of the Southern District of New York. To avoid further patent fights, Edison General Electric (which in 1892 combined with Thompson-Houston to

become General Electric) and Westinghouse (formed out of Maxim's firm) set up a joint patent board, on which Latimer served as chief draftsman and expert witness.²²

At the age of forty-six, Latimer's eyesight deteriorated to the point that he sought and won a small pension from the Edison Company, for "defective eyesight to such an extent as [to] debar him from performing any active manual labor."²³ Latimer knew how difficult it had been for him, as the son of two former slaves, to rise in the white world, so he began to work to help others struggling to overcome obstacles in turn-of-the-century New York City. In 1906 he taught English and mechanical drawing to immigrant Jews from Eastern Europe at the Henry Street Settlement. In the summers, he sat on his front porch to paint and write. His oils include a portrait of an Italian boy he saw on a trip to Italy. In addition to his poetry, he wrote and directed a dramatic comedy for the Willing Workers, a local theatrical group.

Latimer also spoke out on the racial issues of his time. Brooklyn's board of education had a lone black appointee, S. R. Scottron, whom Mayor Seth Low, of the newly consolidated city of New York, did not reappoint in 1902. Latimer urged Low to reappoint Scottron, "Not alone as our representative, but as a good citizen, a worthy gentleman, and one whose influence in his native city warrants the assertion that he would be a bit representative of any of her people, regardless of racial differences." Latimer also collected hundreds of signatures on a petition to secure Scottron's reappointment.²⁴

Although he did not recruit young black inventors to follow in his footsteps, Latimer's career served to challenge young people to achieve in science. In 1973, the Thomas Alva Edison Foundation, the General Electric Company, Greenfield Village, and the Henry Ford Museum combined to publish *Lewis Howard Latimer: A Biography and Related Experiments You Can Do*. The book shows youngsters how to build a switch, wire series and parallel circuits, and make a burglar alarm, among other projects.²⁵

In 1908, the Latimers and some like-minded people began to hold Unitarian meetings in downtown Flushing. In 1914, the congregation, of which the Latimers were the only black members, decided to build the First Unitarian Church (now the Unitarian-Universalist Church of Flushing) at the corner of Ash Avenue and 149th Street, with the Rev. Jacob Ecob as pastor. They turned for a loan to the American Unitarian Association, organized in 1825 by William Ellery Channing, the antebellum reformer, transcendentalist, and "apostle" of Unitarianism. Channing's son William Francis Channing, had edited the *Latimer Journal and North Star*, which publicized George Latimer's case in the 1840s. Lewis Latimer's free spirit found a home in this denomination, which had supported the cause of fugitive slaves like his father. Lewis and Mary's granddaughter Winifred Latimer Norman held positions within the denomination in the twentieth century.²⁶

Although Latimer became the subject of myth, he was himself an uncomplicated, if sad, man who wrote of his life in "My Song":

I sing because I love to sing,
 What though my labors nothing bring
 I still can chant my merry lay
 And let it do what good it may.

What though my life be e'er so sad,
 If I can but make others glad,
 Bring to some face a fleeting smile,
 'Twill serve my sadness to beguile.

I could not chose another soul,
 Should know the clouds that o'er me roll
 Nor hide the face of glad'ning sun
 That warms the heart of any one.

Be life to me what e'er it may
 I'll strive to work from day to day
 To cause all 'round me to be glad
 Nor seek to make another sad.

Our fleeting days are short at best,
 And if those days be ever blest,
 'Twill be by bringing others joy
 Unasked, unsought, without alloy.²⁷

On his seventy-fifth birthday, his friends published his poems in a book that is now in the Queens Borough Public Library collection. Latimer lived in Flushing until he died at the age of eighty, in 1928. The Lewis H. Latimer public school in Brooklyn

was named to honor him in 1968. As a result of efforts by the Lewis H. Latimer Fund, Latimer's house has been preserved and was moved in 1991 to Leavitt Field in Flushing (opposite the Latimer Gardens Community Center, 34-30 137th Street, Queens).²⁸

A significant figure in the development of the electrical industry, Latimer died an accomplished, if somewhat forgotten, man. His ideas were not stolen; the patents for his electrical-lighting improvements, developed on his employer's time, were owned by the United States Electric Lighting Company. However, the true place in history of a man whose work was often slighted or ignored may be appreciated in the Lewis H. Latimer collection of manuscripts at the Queens Borough Public Library, Long Island Division, Jamaica, New York.

NOTES

The author thanks William Asadorian, Queens Borough Public Library, for his help in preparing this article.

1. For Latimer's work, see the Lewis H. Latimer Papers in the Schomburg Center for Research in Black Culture of the New York Public Library, New York; the Edison Pioneers Archives in the Edison National Historic Site, West Orange, NJ; and the Lewis Howard Latimer Collection in the Long Island Division of the Queens Borough Public Library, Jamaica, NY. The two best studies of Latimer are Louis Haber, *Black Pioneers of Science and Invention* (New York: Harcourt, Brace & World, 1970), 49-60, and Aaron E. Klein, *The Hidden Contributors: Black Scientists and Inventors in America* (Garden City: Doubleday, 1971), 64-79. For his biography, see Glenette Tilley Turner, *Lewis Howard Latimer* (Englewood Cliffs, NJ: Silver Burdett, 1990), which credits him with "unlocking the secret of the light bulb as we know it today," but cites his African American background as a possible reason for his not receiving "credit for his breakthrough." Essays on Latimer include Portia P. James, *The Real McCoy: African American Invention and Innovation, 1619-1930* (Washington, D.C.: Smithsonian Institution Press, 1898), 96-99; Robert C. Hayden, *Eight Black American Inventors* (Reading, MA: Addison-Wesley, 1972), 78-91, and *Nine African American Inventors* (Frederick, MD: Twenty-First Century Books, 1992), 80-94; and "Lewis Howard Latimer," in Ivan Van Sertima, ed., *Blacks in Science, Ancient and Modern* (New Brunswick, NJ: Transaction Books, 1983).

2. *Newark Star Ledger*, 2 Feb. 1991.

3. Robert Rosenberg, "When Myths Obscure Understanding," *Baltimore Sun*, 11 Feb. 1992; the Thomas Edison Papers, ed. Robert Rosenberg, are in the New Jersey Room, Alexander Library, Rutgers University, New Brunswick, NJ.

4. "Effort to Save a Site and Light up a Life," *New York Times*, 8 August 1988; the Lewis Howard Latimer Collection (hereafter cited as LHLC) is in the Long Island Division of the Queens Borough Public Library, Jamaica.

5. Latimer's handwritten, unpaginated journal, LHLC.

6. The Edison National Historic Site, West Orange, NJ, has models and originals of Edison's many later inventions; the Menlo Park laboratory, where the incandescent bulb was invented, has been moved to Greenfield Village, Dearborn, Michigan.

7. U.S. Patent numbers 247, 097, and 252, 386, the second of which is in the LHLC; the "Latimer Lamp" is one of eight hundred lamps on display at the Henry Ford Museum, Dearborn, Michigan.

8. Turner, 73.

9. Latimer's journal.

10. Lewis Latimer, *Poems of Life and Love* (Flushing, 1923), n.p., LHLC.

11. U.S. Patent 147, 363.

12. Latimer's journal; Klein, 59.

13. Latimer's journal; for Latimer's drawing of one of Maxim's inventions, see the LHLC. The prolific Yankee inventor Maxim (1840-1916) moved to England after the U.S. War and Navy Departments declined to order the first fully automatic machine gun that he invented in 1883; he sold his gun to the British War Office, formed the Maxim Gun Company, merged it with Vickers in 1896, became a British subject in 1900, and was knighted by Queen Victoria in 1901 (see Hiram Percy Maxim, *A Genius in the Family: Sir Hiram Stevens Maxim through a Small Son's Eyes* (New York: Harper & Brothers, 1936), ix-xi).

14. Latimer's journal.

15. Printed patent, L. H. Latimer and J. V. Nichols, 13 Sept. 1881, in LHLC. Turner states that Maxim tended not to give credit when it was due; "William Sawyer, an inventor who had once worked with Maxim...told a reporter that 'in [Maxim's] last attempt at electric lighting he has made a wholesale appropriation of other peoples' property...'" (There is no record that Maxim

offered to make it [Latimer's carbon filament, first used in the Maxim Lamp in an M shape] in an L shape for 'Latimer')...But Latimer continued to work for him and to develop new methods and equipment for the lighting industry" (Turner, 39-40).

16. Confusion about Latimer's role in the lighting industry may have come from the way in which writers condensed descriptions of his patent on the method of manufacturing filaments to sentences like, "Latimer received his own patent on his electric light filament" (Hayden, *Eight Black Inventors*, 87).

17. U.S. Patent number 255, 212; Klein, 101.

18. Latimer's journal; printed obituary of Latimer by the Edison Pioneers, in Edison Pioneers Papers, Edison National Historic Site.

19. Turner, 42.

20. Latimer's journal.

21. Perhaps because of a falling-out, Maxim failed to mention Latimer in his writing (Turner, 46); obituary of Latimer, Edison Pioneers Papers.

22. Lewis Howard Latimer, *Incandescent Electric Lighting: A Practical Description of the Edison System* (Princeton: D. Van Nostrand, 1890); Klein 102-3; Turner, 110-11; *Edison Electric Light v. United States Electric Lighting Co.*, 1892.

23. Turner, 79; Henry Street Settlement was founded in 1893, by Lillian Wald.

24. Turner, 82.

25. *Lewis Howard Latimer: A Biography and Related Experiments You Can Do* (Southfield, MI: Thomas Alva Edison Foundation, 1973).

26. The Rev. Robert Hemstred, Unitarian-Universalist Church of Flushing, interview with the author, 7 December 1883. A videotape on Latimer is available from the Unitarian Universalist Association, 25 Beacon St., Boston, MA 02108 (617 742-2100); a copy is in the Long Island Studies Institute collections in the Axinn Library, Hofstra University (Alan Singer, "Lewis Latimer, African-American Inventors, and the Growth of United States Industry," in Natalie A. Naylor, ed., *Exploring African-American History* (Hempstead: L.I. Studies Institute, 1991), 24.

27. Latimer, "Poems."

28. Singer, 24.

Columbus and the Whitman Connection

By Frank J. Cavaoli

This article is based on a paper presented at the Twenty-Sixth Annual Conference of the American Italian Historical Association, St. John's University, New York, 13 November 1993.

Though centuries apart, a meaningful connection can be made between Christopher Columbus, the Italian explorer (1451-1506), and Walt Whitman (1819-1892), the American poet. Both sought a new world without physical and spiritual barriers in their quest to alter long-held concepts of the universe. Emerging social, economic, and political forces evident in fifteenth-century Europe and nineteenth-century America, respectively, shaped these two men. Shifting social institutions, scientific advances, commercial expansion, emergence of capitalism, intellectual emancipation, and religious stirrings evoked creative mental impulses leading to revolutionary change in an emerging modern civilization.

By 1492 the European situation had provided ample opportunity to mold the world through cultural and imperial expansion. The far-reaching effects of Columbus's discoveries allowed Europe to dominate world civilization for more than four hundred years. The mariner-explorer's impact was profound and permanent. What had preceded seemed insignificant as Columbus transcended the bonds of contemporary Renaissance Europe. His fierce ambition, originality and daring courage shaped an inner will characteristic of great historical figures. Columbus internalized the strong belief that God had chosen him to spread the Gospel to those people ignorant of the faith, and that it was his destiny to endure suffering because God willed it. In this sense he was a mystic, a deeply religious man who, when imploring aid for his enterprise from King Ferdinand and Queen Isabella, stated he was "a man sent from God. The Holy Trinity moved me to come with this message into your royal presence."¹

In a similar sense, and expanding on this premise, the poetry and thought of Walt Whitman profoundly advanced the American national consciousness in the nineteenth century. His celebration of democracy, political union, and the common man and woman as heroes diverted attention from a fractious society and contributed to a spiritual faith in the American community. Nearing his death in 1892, he could proudly survey a vibrant nation more

united in its values and common goals. This spirit of unity occurred at a critical juncture in United States history in the post-Civil War era and at the beginning of mass immigration.

Walt Whitman, the good grey poet of American democracy, was born in 1819 in Huntington, Long Island, of parents of English and Dutch descent. He worked as a carpenter, typesetter, taught school, and wrote for and edited newspapers. Essentially self-educated, he studied the Bible, Shakespeare, and translations of Greek and Roman classics. At this point, it is appropriate to identify an Italian influence on Whitman. As he matured, he attended plays and operas in cosmopolitan New York City, delighting in the "opera's vocalism of sun-bright Italy."² Whitman drew inspiration and pleasure from grand opera, an art form claimed and perfected by Italians. The beautiful music, superb voices, and emotional plots stirred his creative imagination. Throughout his poetry there appear numerous musical images, as in "Song of Myself,"

I hear the chorus, it is a grand opera,
Ah this indeed is music—this suits me.³

Whitman's passion for opera greatly influenced his poetry in contributing to its structure. In the memorable poem, "Out of the Cradle Endlessly Rocking," can be seen the touches of operatic references. The lyrical language of his free-verse poetry parallel the music and form of Italian opera.⁴ Even toward the end of his life, in Camden, New Jersey, Whitman would bathe daily while his dinner grew cold, enjoying himself singing "broken arias from the Italian operas that were the passions of his life." He relished the performances of the tenor Alessandro Bettini singing Donizetti's *La Favorita* at Castle Garden, and of the Italian prima donna Marietta Alboni singing the principal roles in ten different operas. Whitman claimed that the opera inspired him to write *Leaves of Grass*. By extracting the rich vocabulary from opera and foreign languages, he was able to bring American poetry to a new level of excellence.⁵

His early writings were mediocre, at best. However, in 1855, at the age of thirty-six, he produced *Leaves of Grass* which contained twelve poems largely ignored by critics, or damned for their egotism and revolutionary language: "I am the poet of the Body and I am the poet of the Soul."⁶ Only Ralph Waldo Emerson praised the book for its originality. Nevertheless, throughout his life Whitman produced nine editions of *Leaves of Grass*, constantly revising and adding new poems.

During the Civil War, he became a Union Army nurse in 1862 and remained until after the war. Afterwards he took a government job as a clerk but was dismissed because his book, *Leaves of Grass*, was considered immoral. He obtained another government clerkship until 1873, when he suffered a paralytic stroke which forced him to retire. He then settled in Camden, where he lived until his death in 1892.

He matured "as poet and a prophet with a message for his countrymen." He also experienced a kind of religious conversion in 1855 with his

composition of *Leaves of Grass*. Whitman shared the idea with Emerson and others that American literature should embrace domestic themes reflecting the American spirit. This was not a novel idea, since it had been cultivated during the American Revolution. What was new was Whitman's effective implementation of that agenda. He demanded American literary independence: Americans should not imitate foreign models, and writers should war against narrow provincialism. The poet, according to Whitman, "must first be cosmic before he can be American."⁷

The United States underwent massive expansion of wealth in the second half of the nineteenth century. Growth seemed limitless. Anything was possible. Such energies demanded compression into a national poetic spirit to articulate national uniqueness, to render true meaning to the American experiment. Whitman believed the ideal poet to be a "seer" who possessed transcendent power to combine the past, present and future, and, by eliciting elements from nature, could reveal the universal cosmic plan. In the preface to the 1855 edition of *Leaves of Grass* he stated: "Past and present and future are not disjoined but joined. The greatest poet forms the consistence of what is to be from what has been and is...he places himself where the future becomes the present."⁸

Thus, Whitman, the poet, had special powers to speak for, and represent, the mass: "I hear American singing, the varied carols I hear." By abandoning the restrictions of rhymed meters, he symbolically emancipated himself from the conventions of history, just as Americans had freed themselves from the constraints of feudal Europe. Moreover, his message extolled all the people: "The Female equally with the Male I sing."⁹

Whitman's best defense of his poetry appeared in the 19 May 1860 issue of the *Saturday*, when he presented himself as the "Poet of the American Republic." His rejection of established poetic forms and his exultation of democracy signaled to the world a new American art, coupled with the growth of a free society. "I shall use the words America and democracy as convertible terms," he proclaimed in *Democratic Vistas* (1871). Here, then, is America's poet, identifying with the common person who is "large," "containing multitudes," who is "not a bit tamed," but who will sound his "barbaric yawp over the roofs of the world." The world had never witnessed anything quite like this.¹⁰

Though both Whitman and Columbus are complex and are centuries apart, a parallel relationship can be discerned between them as both experienced triumph and agony in their search for change. Columbus's monumental achievements served to inspire Whitman's imagination in four of his poems, "Spain, 1873-74" (1874), "Passage to India" (1871), "A Prayer of Columbus" (1874), and "A Thought of Columbus" (1891).

"Spain, 1873-74," a brief poem of fourteen lines of free verse, contained the name *Columbia*, a term used to honor Christopher Columbus as a dignified personification of America and the United States. The use of the name *Columbia* by American writers and poets had its origin in the colonial

period, and was popularized during the American Revolution when the need for national unity and symbols was imperative. Alluding to Spain and to the archaic feudal institutions of Europe, Whitman wrote:

Out of the murk of heaviest clouds,
 Out of the feudal wrecks and heap'd-up skeletons of kings,
 Out of that old entire European debris, the shatter'd mummeries,
 Ruin'd cathedrals, crumble of palaces, tombs of priests,
 Lo, Freedom's features fresh undimm'd look forth—the same immortal
 face looks forth;
 (A glimpse as of thy Mother's face Columbia,
 A flash significant as of a sword,
 Beaming towards thee.)¹¹

It is in "Passage to India," however, that his philosophy of poetry and his attempt to combine the natural with the supernatural to transcend the physical world can be seen; and his references to Columbus demonstrate his reverence for the great admiral. To Whitman, the poet, as the "true son of God," possessed the special power to understand and explain God's plan. He believed that scientific knowledge had achieved progress through the ages, but it also led to faith. The poem began by celebrating the "works of engineers," such as the Suez Canal, America's transcontinental railroad, and the transatlantic cable. These achievements, made possible by the explorers of an earlier age, unified the world. But, as he sang "the achievements of the present," he also acknowledged

The past—the infinite greatness of the past!
 For what is the present after all but a growth out of the past?

The failures of the past led to success in the present, enabling Whitman to see a purpose in history and in God's plan:

Passage to India!
 Lo, soul, seest thou not God's purpose from the first?
 The earth to be spann'd, connected by network,
 The races, neighbors, to marry and be given in marriage,
 The oceans to be cross'd, the distant brought near,
 The lands to be welded together.

A worship new I sing
 You captains, voyagers, explorers, yours,
 You engineers, you architects, machinists, yours,
 You, not for trade or transportation only,
 But in God's name, and for thy sake O soul.¹²

In section 3 of "Passage to India" Whitman presented a catalogue of scenes depicting natural beauty, traveling across his own continent "through the grandest scenery in the world," across mountains, plains, rivers, forests,

and desert. He then turned to Columbus in affirmation of his daring discovery:

Tying the Eastern to the Western sea,
The road between Europe and Asia.

(Ah Genoese thy dream! thy dream!
Centuries after thou art laid in thy grave,
The shore thou foundest verifies thy dream.)

And in section 4, again with Columbus in mind, Whitman hailed the many captains and sailors who, though failing to achieve passage to India, made possible

Lands found and nations born, thou born America,
For purpose vast, man's long probation fill'd,
Thou rondure of the world at last accomplish'd.¹³

Throughout history, explorers such as Columbus dared to dream through "ceaseless thought" to strive against all obstacle. The spirit would not die in the souls of the daring.

Section 6 presented a series of images from the ancient past that culminated in Columbus's epochal event. The poet intoned:

The mediaeval navigators rise before me,
The world of 1492, with its awaken'd enterprise,
Something swelling in humanity now like the sap of the earth in spring
The sunset splendor of chivalry declining.(N.14)

Columbus arrived on the scene, "gigantic, visionary...with pious beaming eyes." With the Admiral in mind, the poet continued:

As the chief histrion,
Down to the footlights walks in some great scena,
Dominating the rest I see the Admiral himself,
(History's type of courage, action, faith,)
Behold him sail from Palos leading his little fleet,
His voyage behold, his return, his great fame,
His misfortunes, calumniators, behold him a prisoner, chain'd,
Behold his dejection, poverty, death.

(Curious in time I stand, noting the efforts of heroes,
Is the deferment long? bitter the slander, poverty, death?
Lies the seed unwreck'd for centuries in the ground? lo, to God's due
occasion,
Uprising in the night, it sprouts, blooms,
And fills the earth with use and beauty.)¹⁵

Whitman saw Columbus as a courageous figure who set in motion great forces in history through his discoveries. Yet his hero is rejected by contemporaries who slander, chain and deprive him of his rightful reward. Recognition is deferred, however, as the seed that was planted would produce a more advanced civilization as part of the flow of events.

The final section of "Passage to India" deals with Whitman's mysticism, his search for a spiritual self, his probing for religious and intellectual meaning, his attempt at union of the soul and the physical and his wonder of approaching death. The rite of passage is to "more than India": rather, it is a passage to where no mariner-explorer has ever traveled.¹⁶

"Passage to India" was published in 1871 as the title poem of a separate volume. Later, during the 1870's, it was included as a supplement to three editions of *Leaves of Grass*. Finally, it was incorporated into the body of the book in the 1881 edition. Whitman identified with Columbus at this stage of his life because of the similarities between them. Columbus was the explorer seeking a new route to the Indies, while Whitman explored the realm of literature and life. Both men were slandered in life and their achievements rejected by contemporaries.¹⁷

Honoring Columbus as an heroic figure had been established during the American Revolution, when patriotic writers used the lyrical term *Columbia* to symbolize national unity and democratic progress. The research of Salvatore J. LaGumina has demonstrated how important it is for members of an ethnic group to have one of its own honored in society, especially with a national holiday.¹⁸ So it has been with Italian Americans when, over time, they have joined and led the movement to celebrate Christopher Columbus's discovery of America. Few Italians lived in the United States when the capital was designated the District of Columbia. The first actual celebration of Columbus's discovery took place on 12 October 1792, in New York City, and was conducted by the Society of St. Tammany, or the Columbian Order, as it was also known. Later that month, the Massachusetts Historical Society led a procession in Boston to honor the three-hundredth anniversary of the event.

By 1892, mass emigration from Italy had begun to shape the nation as impressive ceremonies highlighted the Quadricentennial. Prominent Italian Americans led the way with enthusiastic cooperation within the ethnic communities of such cities as New York, Brooklyn, Buffalo, Chicago, Detroit, Utica, Philadelphia, Paterson, Elizabeth, Baltimore, Providence, New Haven, and New Orleans. Honoring Columbus provided the catalyst that awakened Italian American ethnic pride. The celebrations, and those who participated in them, expanded into the twentieth century.

Remarkably, Washington Irving, the prominent nineteenth-century American writer, contributed toward establishing Columbus as a modern icon. His comprehensive three-volume study, *The Life and Voyages of Christopher Columbus*, published in 1828, elevated the mariner to heroic proportions. A briefer volume appeared the next year. The biographies became so popular that by 1859, when Irving died, they had gone through

fifty-one foreign language editions. By 1900, 175 editions and abridgments had appeared, and his interpretation remained the standard view throughout the period.

Irving's three-year research in Spain produced an image of a man who was a visionary, impelled by God and driven by idealism, who sought to open new routes to Asia to advance the cross and western civilization. He saw in Columbus an indomitable spirit that could not be crushed. Irving judged Columbus by contemporary values, which seemed reasonable for his time. Remarkably, his biography was largely forgotten in the twentieth century, and it played a minimal role in the Quincentennial debate.¹⁹

Irving's biographical study of Columbus excited Whitman's imagination when his life took a dramatic turn in 1873 during a paralytic stroke. Whitman was forced to resign his government post and moved to Camden, where he lived till his death in 1892. Paralyzed, drained of vitality, his creative work under criticism, he suffered a further setback when his mother died in 1873. Having read and been impressed with Irving's biography of Columbus, Whitman saw analogies between the admiral's life and his own as he sought strength to overcome his depressed condition. The elements in Columbus's life—achievement, rejection, slander, villification—were now being internalized by Whitman. Both explorer and poet searched for new worlds and new truths, causing the poet to compare himself with his hero.²⁰

Attaching this identification to his imagination, thus strengthening his personal well-being, Whitman composed "Prayer of Columbus," a poem that may be viewed as a continuation of "Passage to India." Whitman, however, became totally absorbed in the symbolic embodiment of Columbus's life, and the poem contained the elements of a dramatic soliloquy. Considering these factors, it is understandable that Whitman's inspiration would lead to a lyrical poem quite distinct from, say, "Song of Myself" in *Leaves of Grass*. In "Prayer of Columbus" the mariner is

A batter'd, wreck'd old man,
 Thrown on this savage shore, far, far from home,
 Pent by sea and dark rebellious brows, twelve dreary months,
 Sore, stiff with many toils, sicken'd and nigh to death.

Now, Columbus is "too full of woe" and "old, poor, and paralyzed." Yet Whitman does not catalogue the deeds of the admiral, but lays out feelings of frustration and pain suffered by ordinary people. The poet has the explorer appealing to God, resigning himself to what will befall him.

Thou knowest my years entire, my life,
 My long and crowded life of active work, not adoration merely;
 Thou knowest the prayers and vigils of my youth,
 Thou knowest my manhood's solemn and visionary meditations,

Thou knowest how before I commenced I devoted all to come to
 Thee,

Thou knowest I have in age ratified all those vows and strictly kept
 them,
 Thou knowest I have not once lost nor faith norecstasy in Thee,
 In shackles, prison'd, in disgrace, repining not,
 Accepting all from Thee, as duly come from Thee.(N.21)

It is clear that in describing the passion of Columbus, the poet was thinking of himself. His dominant mood of resignation is coupled with deep faith: "The end I know not, it is in Thee." Discouraged, the admiral acknowledged the concluding chapter of his life, a life that been challenged and forfeited.

My terminus near,
 The clouds already closing in upon me,
 The voyage balk'd, the course disputed, lost,
 I yield my ships to Thee.

The Columbus persona is joined by Whitman as the realities of life take hold and as spiritual grace is sought to sustain that persona. As one approached the altar of God, Columbus and Whitman reach for true meaning of life and divine sanction for life's work. Divine sanction is generated by a religious transformation. According to the poet Walt Whitman, understanding this experience justified human existence. The most compelling lines follow in "Prayer of Columbus":

My hands, my limbs grow nerveless,
 My brain feels rack'd, bewilder'd,
 Let the old timbers part, I will not part,
 I will cling fast to Thee, O God, though the waves buffet me,
 Thee, Thee at least I know.

Finally, as if to reward Columbus's deep faith, Whitman concluded the poem on an optimistic note, as "new tongues" uplift and "salute" him:

And these things I see suddenly, what mean they?
 As if some miracle, some hand divine unseal'd my eyes,
 Shadowy vast shapes smile through the air and sky,
 And on the distant waves sail countless ships,
 And anthems in new tongues I hear saluting me.²²

When "Prayer of Columbus" was published in 1874 by *Harper's New Monthly Magazine*, Whitman indicated that he had put an "autobiographical dash in it." One of his admirers, Anne Gilchrist, recognized the similarity, and noted in a letter to the poet, that "You too have sailed over stormy seas to your goal—surrounded with mocking disbelievers—you have paid the great

price of health—over Columbus.²³

In an earlier period, Whitman had turned to another heroic figure for help in another personal crisis—Abraham Lincoln. In the 1860 edition of *Leaves of Grass*, Whitman revealed conflicts within himself that contributed to a spiritual demise during which he even contemplated suicide. As he experienced a division within himself, symbolically, a divided nation moved closer to civil war over slavery. Whitman advocated a strong Union and recognized President Lincoln as its saviour. Later, in 1865, he mourned Lincoln's death with lyrical passages of deep compassion. One scholar assessed the poet's emotional experience in this way: "Lincoln saved the Union and he probably saved Whitman spiritually and practically." In 1873, following the Washington period, Whitman turned to Columbus to sustain him. After suffering a paralytic stroke and having his poetic soul slandered, he perceived a similarity in the admiral as a "batter'd, wreck'd old man." "Prayer of Columbus" provided literary and spiritual nourishment in this time of stress.²⁴

The strong relationship between Whitman and Columbus, transcending time and place, continued to the time of the poet's death. Conscious of the four-hundredth anniversary of the discovery of America, Whitman wrote his very last poem, "A Thought of Columbus," in early 1892 (he died on 26 March 1892). The poem appropriately honored the martyred explorer to whom he had turned in his time of depression when he wrote "Prayer of Columbus." Now, with death near, his reverent prayer to his hero furnished the nourishment to uplift him. This poet-son of God wrote,

The mystery of mysteries, the crude and hurried ceaseless flame,
spontaneous, bearing on itself...
A breath of Deity, as thence the bulging universe unfolding!

He sensed a divine hand guiding the "bulging universe unfolding" and ushering forth "farthest evolutions of the world and man." Reason provided the justification for four hundred years of progress:

A thought! a definite thought works out in shape.
Four hundred years roll on.
The rapid cumulus—trade, navigation, war, peace, democracy, roll on.²⁵

As life closed around him, Whitman saluted history's greatest explorer with these final lines, the last he was to compose:

(An added word yet to my song, far Discoverer, as ne're before sent
back to son of earth—
If still thou hearest, hear me,
Voices as now—lands, races, arts, bravas to thee,

O'er the long backward path to thee—one vast consensus north, south,
east, west,

Soul plaudits! acclamation, reverent echoes!
 One manifold, huge memory to thee, oceans and lands!
 The modern world to thee and thought of thee!)(N.26)

Thus, Walt Whitman the poet, as seer of truth, employing Columbus as symbol, joined past with present to make explicit the unfolding of historical forces. The many references to Columbus by Whitman continued a long literary-historical tradition that supplied inspiration, introspection, and meaning in the progression from a simpler to a more advanced, complex, American civilization.

In summary, the pattern of honoring Christopher Columbus as a heroic figure was instituted during the American Revolution when patriotic writers used the name *Columbia*, as derived from the great Italian explorer, to signify democracy and national unity. Reflecting the concept of the dignified personification of the United States, *Columbia* served the national needs by embracing an earlier period of western European exploration. It also furnished an opportunity for American poets (and others) to articulate national self-definition, so necessary for the foundation of nationhood.

Americans, throughout their history, striving to fulfill their destiny, created the image of *Columbia* as a metaphor to overcome a divided multicultural society. Walt Whitman contributed dramatically in this line of national development. Within the nine lifetime editions of *Leaves of Grass* can be seen the growth and maturity of one of the most original American poets, whose work may be measured in epic proportion. In his long narrative poetic style Whitman celebrated the deeds of the common man and woman, his heroes, in a period of progressive democracy and economic growth. He was expansive; he elevated that practical growth to a higher level of culture and spirituality through the implementation of linguistic and lyrical technique. *Leaves of Grass* broke new ground. For Whitman, the poetry of the past was unsuited for modern American civilization. He instinctively sensed the greatness of the United States and its special mission in the world. Moreover, in referring to another of his masterpieces, "Song of Myself," in *Leaves of Grass*, it "does make for a new kind of heroic poetry. In it, the hero comes into being, as realizing the full creative force of the self." This new heroic poem contained the power of creative energy.²⁷

The connection between Walt Whitman and Christopher Columbus is, indeed, considerable. In four poems Whitman turned to the great explorer, drawing inspiration and comfort from him: "Spain, 1873-74," "Passage to India," "Prayer of Columbus," and "A Thought of Columbus." It was not unusual that Whitman empathized so eloquently with Columbus. As a Long Islander, he was influenced by the rolling waves of the Atlantic Ocean, the calm of the Long Island Sound and its endless sandy shorelines. He fished, swam, and dug for clams. The many sea stories narrated by old timers helped shape his poetry. In a similar sense, the sea shaped the career of Columbus.²⁸ Moreover, water imagery was used in his poetry to convey powerful feelings and meanings.²⁹

Whitman internalized Columbus's suffering; Whitman endured as Columbus endured; Whitman's search for new literary frontiers matched Columbus's search for new physical boundaries. In a simpler age of the nineteenth century, the hero could be accepted for his obvious achievements without reservation. In celebrating Columbus, and the common man and woman, Whitman commemorated the American nation.

NOTES

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20. Miller, 33-34.
21. For all quotations from "Prayer of Columbus," see Whitman, 351-53.
22. Allen, 206-7; Joseph Tusiani, "Christopher Columbus and Joel Barlow," *Italian Americana*

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23. Kaplan, 348; Anne Gilchrist was the widow of Alexander Gilchrist, the biographer of William Blake.

24. Gay Wilson Allen, *The New Whitman Handbook* (New York: NYU Press, 1975), 42-43.

25. *Ibid.*, 159; Whitman, 464-65.

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27. Roy Harvey Pearce, "Toward an American Epic," *Hudson Review* 12 (1959): 362-77; Kaplan, 61.

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28. Coffman, 340-41.

The Fullertons and the Experimental Farms of the Long Island Railroad

By Chet Chorzempa

“When we become more familiar with the manner in which railroad enterprises are managed in Suffolk County, we shall learn that the Long Island Railroad Company has a policy of its own, which, to say the least, is peculiar.” This anonymous nineteenth-century quotation would seem appropriate to many commuters today as they make their way on the trains of the LIRR. It would also lend itself as an explanation to a historian or an economist attempting to research and study the activities of the Long Island Railroad Company. However, to become familiar with the background of the line is to understand that its often-questioned actions were quite necessary for it to continue as a viable part of Long Island’s development and economy.

In April 1834, a special act of the New York State Legislature incorporated the Long Island Railroad Company, with a capital of \$1,500,000 in shares of \$50 each. Although the railroad has a long and continuous association with Long Island and its growth and development, the primary reason for its construction was not to serve the Island’s economy and its communities, but rather to form a speedy passenger and freight connection between New York City and Boston. Because the extremely diverse topography of Westchester and Connecticut seemed to make such a route impossible, an alternative was sought. The interior of Long Island, four-to-six miles inland from the South Shore, became that alternative. Engineers and surveyors planned a route along the southern boundary of the Ronkonkoma moraine from Brooklyn to Riverhead, and then along the North Fork to Greenport. Passengers and goods could be quickly transported from New York to Greenport, and then loaded on “Commodore” Vanderbilt’s elegant ferries for the voyage across Long Island Sound to Stonington, Connecticut, where another rail connection to Boston completed the journey.¹

Following ten years of construction, the long-range plan became a reality when the main line from Brooklyn to Greenport was opened to public service on 29 July 1844. The railroad inventory in 1844 consisted of eleven locomotives, twenty-two passenger cars, sixty-three freight cars, and ninety-six miles of track. The flow of trade progressed smoothly until, in late 1848, the predecessor to the New Haven Railroad completed the missing mainland link for direct rail connection between New York and Boston, thus making the Long Island route longer, more burdensome, and therefore no longer necessary.²

The economic problems which beset the railroad led to years of facing the brink of bankruptcy and countless receiverships. How could the company, with its main line close to the center of Long Island, away from the more densely settled and developed coastal areas, hope to survive? Passenger travel alone would not suffice in making the railroad an economic success. The freight traffic and revenue lost to the New Haven Railroad had to be matched to some measurable degree. New lines were built and consolidated, aimed at serving the North and South Shores as well as the central section. Increased service to the populated coastal areas was often accompanied by competition of rival railroad companies, who sought to enhance their own economic futures. A lack of envisioned leadership on the part of the LIRR, marked with hesitation, uncertainty, and an often stubborn attitude, led to a highly questionable quality of service, serving only to mar a reputation far from popular to begin with. The levels of noise, the constant fires and accidents, and the lack of published schedules caused the public to question the progress of the railroad within the developing industrial era, while upsetting the solitude of the Island's agrarian setting. More often than not, the railroad seemed doomed to certain failure.³

Under the enlightened direction of Austin Corbin, who joined the railroad in 1881, the company consolidated competing lines, provided vastly improved service, and generally enacted policies which gave it needed respectability: "In the 1890s the LIRR was completed to its greatest extent; and it actually paid dividends until 1896, when Corbin died." Having completed the line through East Hampton to Montauk Point in 1895, Corbin attempted to by-pass New York City and make Fort Pond Bay the new American terminus of the transatlantic steamship trade, transporting passengers to and from the city by rail. This ambitious plan attained considerable backing in Congress, but came to an end after Corbin was killed in an accident.⁴

At the turn of the century, two forces began to shape the future of the Long Island Railroad. The Pennsylvania Railroad obtained control of the line in 1900, and began immediate plans that would lead to a vast increase in passenger traffic by means of an East River tunnel connecting the Island with Manhattan. The second force was Ralph Peters, elected president of the Long Island Railroad in April 1905. A Southerner by birth and familiar with agricultural settings, Peters had toured experimental farms as an official of the Norfolk and Western Railroad, of West Virginia. Although he did not devise the concept, he initiated the plan to involve the Long Island Railroad with agriculture and experimental farms.⁵

Peters was aware of the increasing trend among railroad companies to hire agricultural experts—agents who introduced the most modern agricultural techniques to area farmers. Reports from Long Island which also caught Peters' attention included: the success of Dr. Edgar Fenn Peck, of Brentwood, who produced fine crops within the heart of the pine barrens; the wonderful flower and vegetable displays of the Central Islip Hospital Farm; and the work of one C. Allen, who managed a successful seed-growing

business from Calverton to the North Fork.⁶

Having examined these successful enterprises, as well as a long-range plan to increase the railroad's freight revenues, Peters set up an agriculture department of the Long Island Railroad. Following his first tour of the railroad's branches, he became aware that there existed in Suffolk County nearly a quarter of a million acres of idle land, which he believed could be converted to productive farmland. This farmland would draw thousands of immigrants from New York City to Suffolk, and, in turn, the line's volume of freight would rise because of rail shipments to the rapidly-growing city market of crops raised on these newly-established farms.

To head the new department, Peters appointed Hal B. Fullerton as the railroad's special agent. The purpose of the department was, by means of experimental farms, to transform idle soil into fertile farmland, and, by this example, increase the growth of Suffolk County as well as that of the Long Island Railroad. Originally, there was to be a three-fold plan to accomplish this objective. The first farm would be established along the North Shore branch, within the scrub oak waste area. The second farm would be placed along the main line within the pine barrens area. And, finally, a third farm would be established along the South Shore branch, within the sandy outwash plain.

None of these areas, to the general population, was thought to be ideal farmland. The meager plant life and poor soil samples suggested that any attempt at successful agriculture would end in dismal failure. The railroad and the Fullertons—Hal and his wife and associate, Edith—set out to prove otherwise.

Harry "Hal" B. Fullerton, an Ohio native, spent his educational development and early work experiences in a host of different institutions and numerous geographic locations. A variety of companies listed Hal Fullerton as part of their work force, while Hal called areas from Massachusetts to Texas home. His unfinished training as a civil engineer served as his opportunity to gain employment within these various enterprises. His travels included visitations to Mexico and Latin America.⁷

Following the death of his first wife Mary, Fullerton met Edith Loring Jones. Edith was determined to create a new role and image for women within society. No longer would women have to have their apron strings tied to their homes with numerous children at their feet. The ability to secure an education and to become viable contributors to the American way of life were goals that had to be achieved. A gifted, intelligent, vibrant, and determined Edith L. Jones set out to make her mark. Edith's training was to begin at the Pratt Institute within the education department.⁸

Hal and Edith's lives were to change when, following a courtship of several years, which was often marked by Hal's absence due to business-related travel, the couple was wed in 1898, following Hal's appointment as special agent for the Long Island Railroad a year earlier. It would be the Fullertons, hand in hand, who would begin to transform the idle acres of Suffolk County into productive farmland for the Long Island Railroad.

Following the appointment of Hal Fullerton as director of the Agriculture



Teddy Roosevelt, LIRR President Peters and the Fullertons, Wading River, 1910. Photo, SCHS.

Department of the Long Island Railroad in 1905, the development of the experimental farms quickly began to take shape. In August 1905, Peters ordered his new director to “find the worst ten acres on the north shore upon which to establish Experimental Station No. 1.” Fullerton toured the North Shore Branch of the railroad searching for a ten-acre parcel, but people in the area were reluctant to sell such a small piece of land. Finally, Fullerton came

upon an eighteen-acre parcel in Wading River that he felt would suit the experiment perfectly. He reported to Peters that this land "was a slice out of the most desolate burned over waste mind can picture. The villagers label it the 'no goodest piece of land to be found.'"⁹

The selection was approved by Peters, and, on 19 August, the Long Island Railroad purchased the property. It did suit the primary goal of Experimental Station No. 1, as the land fit the description of "scrub oak waste." To Fullerton's advantage, the parcel was bordered by the tracks to the north, which would facilitate unloading of materials and shipping, and was but one and one-half miles west of the Wading River station house. Work on the farm was scheduled to begin on 23 August 1905. Before this date, selected members of the press were invited to the farm to record and document the location and appearance so as to have a base for future comparison once the farm was in full operation.

The Fullertons carefully developed their strategy. As a scientific experiment, the farm would prove to non-believers that success within the scrub oak waste simply required hard work, along with a knowledge of new agricultural methods in conjunction with natural forces. Individuals with limited resources would be able to achieve the same success. Records of all farm operations would be kept, along with weather conditions, varieties of crops grown, a catalog of insects and all incurred plant diseases. Experimental Station No. 1 would become the "Peace and Plenty Farm" for the Fullerton family.

The blueprint of the farm called for a ten-acre market garden to fulfill the original needs of the experiment, while the remaining eight acres would provide shelter, an orchard, space for cold frames, and, finally, an area to develop an experimental dairy section as well, to prove that Long Island was equally suitable for forage. Because clearing the land was the first order of business, Charles Kissam, of Huntington, a dynamiter by trade, was retained to perform this service. After the first stump was blown, the Fullertons could get a clearer picture of the soil with which they had to work.¹⁰

The soil of Experimental Station No. 1, located within the Haven-Riverhead Association, is bordered primarily by the Carver-Plymouth-Riverhead Association, categorized as having the deep, rolling, excessively-to-well-drained soils, which are coarse to moderately coarse in texture, found on moraines. The surface and subsoils are comprised of sandy loam or sand and gravel. The Haven-Riverhead Association of the farm is categorized as having nearly level to gentle sloping soils, which are deep and well drained with medium to moderately coarse textures found on outwash plains. The surface layer is loam with a sub-strata of sand and gravel.¹¹

Further characteristics of both associations include, a moderately rapid permeability, while the content of organic matter and a natural supply of plant nutrients are low. The area requires constant irrigation and is suitable for all crops, with a moderately high potential for productivity if good management is applied.¹² The concepts of land management and varying agricultural techniques would be tested to produce favorable results for the farm.

The soil at Experimental Station No. 1, although richer than Fullerton had expected, not only lacked a great deal of organic matter or natural nutrients, but required a source of irrigation because of its rapid permeability. A well was driven and the dynamiting increased to meet the autumn deadline set by Hal Fullerton. The villagers grew angry at the noise and what they thought was the foolish attempt by Fullerton and the railroad to convert this area into productive farmland. A typical remark of the day was, "Aw, they're plantin' dynamite and raisin' hell and that's all they ever will raise."¹³ In addition to stumps, the underbrush of huckleberry roots, wild grape vines, and sweet ferns proved to be a major problem.

Nevertheless, the deadline was met and by winter the first ten acres had been cleared, plowed, harrowed, and planted with winter rye, to avoid wind erosion and add nutrients to the soil, for it would be plowed under in the spring. An orchard containing apples, peaches, cherries, quinces, raspberries, strawberries, Japanese plums, pears, gooseberries, currants, apricots, nectarines, grapes, and blackberries was also readied. The remaining winter months were spent making ready the living quarters, the cold frames, and preparing the tools for the work in the spring. The number of laborers furnished to the farm varied with the amount of work to be done, and usually ranged from four to eighteen. Villagers also were hired, at times, to cart materials and to begin to improve relations.

As spring approached, local and imported seeds were ordered along with wood ashes and rotted manure as the plowing began. With the sowing of the seeds and a careful inspection for disease, the recording of water and weather conditions, along with weed control and cultivation, would all have to continue.

By late spring, the cleared land of "Peace and Plenty" began to show signs of life and plant growth. In May 1906, the Suffolk County Press Association was invited to Experimental Station No. 1. The reporters were amazed at the early signs of success, prompting a writer for the *Riverhead News* to note:

The occasion was pleasant in every respect and a highly enjoyable affair...The purpose of our trip was to be shown that seeds will germinate and grow on cheap or waste land of Long Island. Eighteen acres of cheap scrub land are now all cleared of brush and stumps and under cultivation. This experiment is not an expensive farm."¹⁴

Some skeptics, however, maintained that commercial fertilizer had been used to obtain these results, and, more importantly, that the railroad's financial resources were solely responsible for the successful production at Wading River. In reply, Hal Fullerton stated that only natural and organic fertilizers were used, and that the irrigation system for the farm consisted of but one well, powered by a small kerosene engine, all of which were inexpensive and affordable to the average farmer. The press would be invited to return to the farm upon harvest.¹⁵ Regular reports and the first harvests of each crop were sent regularly to President Peters.

A variety of insects, blights, and rusts attacked the farm and challenged

the abilities of Hal and Edith Fullerton. On 7 August 1906, Edith prepared a menu for President Peters and the press association which would exemplify the success of the farm and point out the variety of crops raised. As the reporters exited the train they were amazed to see how the farm had progressed in three short months. To observe the twelve-foot-high field of corn and the cabbages which measured forty-two inches in diameter, along with the 380 varieties of plants, trees and flowers, the reporters felt they were witness to an extraordinary accomplishment.

The production of such a large variety of plants was necessary not only within the scheme of the agricultural project, but also to prove conclusively to the world at large

that any plant growable in the temperate zone could be developed far above the average in quality and further, many little known or entirely unknown growths of marked food value in their native countries could readily naturalize with the particularly favorable conditions of Long Island climate and soil.¹⁶

The achievements of Experimental Station No. 1 were exhibited firsthand to the general public, both at the Suffolk County Fair in Riverhead and the Nassau County Fair in Mineola. As the prizes were awarded within the railroad's demonstration building, plans were also being readied for phase two of the Agricultural Department's plan, the acquisition of land within the pine barrens in order to establish Experimental Station No. 2. As 1906 drew to an end, Edith Fullerton recorded "thus stands the farm, but a year and a month old. Proudly does it raise its head and look the world in the face, calling to mankind to come and liberate its sister acres lying in idle waste and unproductiveness, awaiting but the touch of that magic wand—the hand of man."¹⁷

The Long Island Railroad Company approved the purchase of Experimental Station No. 2 in early 1907. The farm, located in Medford, was eighty acres in size. The blueprint for this farm closely followed the Wading River plan. The Fullerton's quickly dubbed No. 2 "Prosperity Heights"; the additional area provided an opportunity to produce nearly one thousand varieties of plants. As time progressed, the rigors of managing two agricultural sites, the countless requests for speaking engagements, the public exhibitions at county and state fairs, the numerous publication deadlines, the projects accepted for state and federal departments, as well as a growing family, all were to account for an extremely busy schedule for Hal and Edith Fullerton.¹⁸

The railroad used every opportunity and option to continually publicize the success of the two farms. Although the farms accomplished their primary goal of proving that Long Island's soil within the scrub oak and pine barrens regions could produce the finest quality of agricultural products, the question remains as to whether the ultimate objective was achieved. Did the experimental farms spur the settlement of the East End and increase the amount of land under cultivation, and did the freight revenues of the Long Island Railroad Company increase? Upon examining census reports for the

period of the farms' operation, one finds that the towns of Brookhaven, Riverhead, and Southold maintained a pattern of consistent growth with no major or fluctuating increases.¹⁹

The railroad's percentage of operating revenue realized from freight traffic was 28.4 in 1901, 26.6 in 1910, 27.8 in 1920, 29 in 1927, and 27.3 in 1929. The boom of population and freight revenues expected by the railroad from its agricultural experiments never materialized. Whether it was the daily grind of managing two sites or the unrealized freight increases, the Long Island Railroad's operations at Experimental Station No. 1 ceased in 1912, and at Experimental Station No. 2 in 1927, when Hal Fullerton reached mandatory retirement age.²⁰ The third farm along the South Shore never became a reality.

The productivity of the farms and the notoriety afforded Hal and Edith Fullerton led to countless projects and endeavors. In addition to the activities mentioned earlier, Hal and Edith, either collectively or separately were also involved with: foreign agricultural exhibits; the Food Reserve Battalion of the LIRR during World War I; the American Committee for Devastated France; the Suffolk County Boy Scouts; the State Agricultural and Technical College at Farmingdale; *The Agronomist*; and projects such as the electrification of farms, the creation of an organized cyclist program, and a "good roads" movement, to mention a few.

The Fullertons had taken two parcels of what Hal referred to as the "blessed isle" and transformed them into areas of unquestioned success and productivity. They worked collectively as a team, each complementing the other's abilities, although Hal, the "senior partner," often neglected to share the credit with his "junior partner," Edith. Perhaps it was this type of attitude which created future personal problems between the two. Nevertheless, the Fullertons remain an integral part of the history of the Long Island Railroad, and are responsible for showcasing our "blessed isle" to the highest degree. Although the agricultural department of the railroad has long since ceased operation, it is noteworthy that the area encompassed by "Prosperity Heights" remains a farm to this day, and that "Peace and Plenty" is the general roadway entrance to the Long Island Lighting Company's Shoreham facility. The irony of Hal B. Fullerton's interest in electrification, and the fact that the Wading River farm made its way into the property holdings of the Long Island Lighting Company, are overshadowed by the success story created in Wading River and Medford by the Fullertons.

NOTES

I extend my thanks to Wallace Broege, the director of the Suffolk County Historical Society, Riverhead, who shares my interest in the Fullertons and their contribution to Long Island. His leadership has made the Society a valuable facility for school children, teachers, researchers, and historians. I compliment him and his staff for a job well done, and hope that their work is recognized by the residents of Suffolk and its governmental leaders.

For more on the Fullertons and their many projects, see Charles L. Sachs, *The Blessed Isle* (Interlaken, NY: Heart of the Lakes Publishing, 1991), a comprehensive work with many

Fullerton photographs, and Eleanor F. Ferguson, edited by Anne Nauman, *My Long Island: Growing up on Hal B. Fullerton's Blessed Isle, 1902-1942* (Las Vegas, NV: Scrub Oak Press, 1993 [reviewed in this issue of LIHJ]).

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3. For the often chaotic history of the LIRR after the Boston-New York debacle, see Vincent F. Seyfried, *The Long Island Rail Road: A Comprehensive History*, 7 vols. (Garden City: the author, 1961-1984); see also Ron Ziel, *The Long Island Railroad in Early Photographs* (New York: Dover Publications, 1990).

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5. Sachs, 52; Eleanor F. Ferguson, "As I Remember It" (Riverhead: Suffolk County Historical Society, 1980), 48.

6. *Newsday*, 13 December 1973; *County Review*, 18 August 1905; for Peck, the tireless defender of the fertility of the pine barrens, see "Edgar Fenn Peck" [autobiographical sketch], in Henry R. Stiles, ed., *Civil, Political, Professional and Ecclesiastical History and Commercial and Industrial Record of the County of Kings and the City of Brooklyn, N.Y. from 1683 to 1884* (New York: W. W. Munsell, 1884, I:40a-46a).

7. Ferguson, "As I Remember It," 8.

8. Information on Edith's educational background provided by Alice Ross, 20 October 1991, when she and the author were speakers at the SPLIA Gallery, Cold Spring Harbor.

9. Edith L. Fullerton, "Peace and Plenty," in *The Lure of the Land: A Call to Long Island* (New York: LIRR, 1906), 11; *Lure of the Land* depicts the everyday operations of Experimental Station No.1, noting daily records and scientific data.

10. *Ibid*, 11-13.

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12. *Ibid*, 14-20

13. Fullerton, *Lure of the Land*, 23.

14. *Riverhead News*, 26 May 1906.

15. *Amityville Record*, 25 May 1906.

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The Role of the Community in Civil War Desertion

By Judith Lee Hallock

Editor's note: Because of its pertinence to Long Island history, we reprint this article, originally published in Civil War History 9 (June 1983): 123-34, with permission of The Kent State University Press, John T. Hubbell, Director.

Communities, like individuals, have personalities, and their response to crises reflect their peculiar characteristics. During the Civil War, Northern communities played an important role in supplying the Union armies with soldiers. Towns met their obligations in various ways, from sponsoring rallies that aroused the patriotic fervor of their own young men to hiring substitutes from as far away as Europe.

The American Civil War was a transitional war in many ways, including the manner in which armies were recruited. From its earliest days, military service was handled locally, and initially Abraham Lincoln followed tradition by calling upon the states' militia. At the war's outset the federal government was feeble, secession having left it tottering, while the state governments were stable, financially sound, and already in possession of military organizations.¹ When the president issued a call for men, the secretary of war notified the governors of their quotas, which were then apportioned throughout the states. On 4 August 1862, however, Lincoln issued a call for the draft of 300,000 men, the first instance of the federal government assuming military draft prerogatives in the United States. The protests made by the governors did not question the president's authority to order a draft, which at least one source contends was of "dubious legality,"² but rather the quotas and time allowed for the recruitment. This executive draft of 1862 was relatively ineffective; its "chief contribution...was that it affirmed without serious constitutional opposition the principle of a compulsive Federal draft of manpower for military purposes."³ On 3 March 1863 Congress passed the Draft Act, firmly establishing the principle "that every citizen owes the Nation the obligation to defend it and that the Federal Government can impose that obligation directly on the citizen without mediation of the states."⁴

Only about 6 percent of the Union soldiers were obtained directly through the draft, yet it probably increased the number of volunteers because the draftee was peculiarly stigmatized. Fred A. Shannon believes that the

“coercive power of the draft was more moral than statutory and seems to have exerted its direct influence more upon the state and local governments and patriotic organizations than upon the people direct.”⁵ State and local officials, independent clubs, and recruiting officers “alternated between describing the ignominies and horrors of drafting and advertising the bounties they were willing to offer volunteers.”⁶

Neither drafting nor bribery was necessary at the war’s outset. Enthusiasm was high. Men marched off to fight in a blaze of excitement, and many were apprehensive that peace would be proclaimed before they had the opportunity to fire a weapon at the enemy. So many men volunteered that individuals and organized units alike were turned away by the state and federal governments.

Besides the patriotic fervor and holiday spirit, the regional economies aided in the procurement of volunteers. Jobs were scarce and many young men were unemployed. Volunteers, believing the war would be over quickly, considered soldiering as a short-term occupation—something to tide them over for the next few months. In December 1861 Edwin F. Worthington wrote to his mother, “I could find nothing to do anywhere so...I went to New York and enlisted.”⁷ Another young man, Phinias E. Johnson, informed his cousin that he had no work and no immediate prospects for employment.⁸ Within a few months, Johnson’s uncle explained, “He enlisted...in a fit of dejection and discouragement at not being successful in getting steady work or a proper remuneration.”⁹ Both of these young men died before a year passed.

As the war continued volunteers became scarce. The surplus labor supply had been absorbed by the army and by the increased demands of farms and factories. Potential volunteers, weighing their earning capacity in civil life with the meager pay of a soldier, chose to remain civilians.¹⁰

The federal government recognized that more incentive was needed to draw voluntary enlistments and instituted the bounty system. Severely criticized at the time, as well as down through the years since the war, the bounty system led to and encouraged desertion. As it became increasingly difficult to obtain recruits, states and localities offered ever higher bounties to attract prospective soldiers to their own area, thus receiving credit toward their draft quotas. The expenditures for bounties, approximately \$750,000,000, were “about as much as the pay for the entire Army during the entire war; exceeded quartermaster expenditures for the war; and were twice as great as the cost of subsistence and five times the ordnance costs.”¹¹

The basic evil of the system was that as communities vied with each other for recruits, the bounty, rather than being an incentive to enlist, became a “price for mercenaries....However well the bounty program was conceived, in practice it was costly, inefficient, and sordid.”¹² This situation encouraged bounty-jumping, wherein a man volunteered, collected his bounty, deserted, and reenlisted in another area using an alias. Ella Lonn concludes, “The vast size of the country, the feverish zeal of each town and city district to fill its quota, rendered it hard to detect the miserable bounty-jumpers.”¹³

The high rate of desertion was closely related to the bounty system, and

those states paying the largest bounties produced the largest proportion of deserters.¹⁴ New York, which paid the highest bounties in the country (one district averaging \$407.74 per volunteer),¹⁵ had a high percentage of deserters: 89.06 per thousand, as compared with a national rate of 62.51 per thousand.¹⁶

Substitution, which allowed a draftee to furnish a man in his place, was another inducement to desert. The price for substitutes increased as draftees vied with one another to hire replacements. The competition for substitutes also raised bounties because men enlisting for mercenary reasons would naturally seek out the highest profit available. High bounties, in turn, encouraged desertion, as men moved on to avail themselves of those high profits as often as possible. Many people, of course, could not afford the price of a substitute, and charges were made that it was a rich man's war and a poor man's fight.

An additional factor in the desertion rate was the high proportion of recent immigrants in the Union armies. Many foreign-born men had settled in the United States long before the war began. Others, however, came for the express purpose of enlisting, and still others were cajoled and tricked into coming by less-than-honest agents sent abroad on recruiting missions. These agents, hired by local and state governments, promised industrial and agricultural employment in America. Upon arrival in the States, however, the immigrants were delivered to a recruiting officer, but the agent collected the major portion of the bounty due the recruits. Having no money, and no options, the men became unwilling soldiers. Understandably, such foreign-born soldiers were the most likely to desert. Statistics compiled by Provost Marshall General J. B. Fry revealed a far greater ratio of deserters for the eastern states, with urban populations in which the foreign elements were significant, than for the western states, where a larger native-born population prevailed. He held that desertion was a crime of foreigners rather than of native Americans, and army officers corroborated this view.¹⁷

Deserters often escaped punishment. Through the course of the war there were approximately 200,000 desertions, but only about 80,000 arrests. Of those tried, 147 were executed by firing squads.¹⁸ Although military officials objected strenuously, Lincoln commuted death sentences on the slightest pretext. Lonn believes that public opinion made execution for desertion difficult until 1864, when the nation finally recognized the "inevitability of war rigor in time of war,"¹⁹ but by then there were just too many deserters. Few were shot, "and the evil increased."²⁰ A civilian recalled Lincoln explaining his leniency in desertion cases:

If I should go shooting men by scores for desertion, I should have such a hullabaloo about my ears as I have not heard yet, and I should deserve it. You cannot order men shot by dozens or twenties. People won't stand it and they ought not to stand it.²¹

Although some general conclusions have been drawn about the motives of Civil War deserters, too little is known about the degree of influence the

community had on its enlistees while they were away from home. Comparisons of two towns located in Suffolk County, Long Island, New York, and of some of their enlistees suggest a significant relationship between the community's sense of responsibility and the enlistees' devotion to military service. Brookhaven and Southold, although close geographically, responded quite differently to the demands of war, as did the men enlisting in each of these towns.

The 190 individuals studied from these two towns (70 from Brookhaven, 120 from Southold) enlisted between August and November of 1862. By that time the fever pitch of volunteering had worn off. People recognized that the war was not going to be over quickly, and the realities of war began hitting home as deaths from battle and disease were reported. When Lincoln issued his draft call in August 1862, these communities were eager to avoid the degradation of drafting their quotas, so they turned to other methods to fulfill their obligations.

In general, the men enlisting from Brookhaven and Southold were similar. The majority of them were between 18 and 29 years of age. Both towns followed the national trend of heavy enlistments of 18- and 21-year olds, with a curious lag in the enlistment of 19- and 20-year olds. Brookhaven enlisted 16 men who were 18 or 21 as opposed to 7 who were 19 or 20; Southold had 31 in the former group and 14 in the latter. The average age of enlistees from both towns was 23.47, somewhat lower than the national average of 25.81.²² When broken down according to town, however, Brookhaven's average was 25.88, while Southold's was only 22.83.

Occupations were varied among the enlistees but were similar between communities. Thirty-five percent of the enlistees were farmers or farm laborers, well below the 48 percent national average. Given the unique characteristics of the Long Island area, however, an additional 12 percent were listed as mariners, boatmen, baymen, or fishermen—occupations not listed in the national categories other than under "4 percent miscellaneous."²³ Among the Brookhaven and Southold enlistees were also seven carpenters, three shoemakers, two printers, two blacksmiths, one wheelwright, one cooper, and one peddler. No professional men or merchants enlisted in these towns during the period studied.²⁴

The number of foreign-born enlisted from each town in late 1862 accounts for the greatest difference between the two groups of men. Only 6 percent of Southold's enlistees were of foreign birth, while Brookhaven's enlistees included 40 percent foreign-born.

Although the enlistees were similar in age and occupation, the two towns were strikingly different. A decade after the Civil War a local historian described Brookhaven, the largest town in Suffolk County, as "still covered with forest and scrub growth. The settlements are mostly along the middle, and on the south side. Between these ranges of settlements large tracts of wood-land intervene, the monotony of which is scarcely broken by any attempt at improvement."²⁵ Brookhaven does not appear to have had the

makings of a cohesive social unit: widely scattered settlements, with difficult access to other areas, prevented the closeness apparent in other Long Island towns of the period. There were also no newspapers published in Brookhaven during the Civil War that might have promoted community spirit and unity.

The published records of Brookhaven make no mention of the war until February 1864, but the journal of Nathaniel Miller, town supervisor,²⁶ contains an entry on 21 August 1862 noting that a town meeting voted authority to the supervisor to raise money to pay each volunteer a \$150 bounty. In June 1864 the bounty was raised to \$300. On 12 January 1865 a special town meeting authorized a committee to get substitutes at a price of up to \$500 for a three-year enlistment. From late 1862 to the end of the war, the supervisor was active in finding substitutes for the men drafted from Brookhaven. He often traveled to Jamaica, Long Island, or to New York City for that purpose.²⁷ Miller's success in 1862 is revealed by the enlistment papers for the months of August through November; of the 240 men enlisted, 109 were foreign-born, 74 of whom were born in Ireland. Only two of these foreigners appeared in either the 1860 federal or the 1865 New York State census, suggesting that the overwhelming majority of recruits were probably not Brookhaven residents at the time of enlistment. Though foreigners were not the only deserters, this may have contributed to the extremely high desertion rate found among this particular group of men. While the national figures show an approximate rate of 10 percent,²⁸ the desertion rate for the Brookhaven enlistees examined here was 27 percent.

Although 240 enlistment papers are extant from Brookhaven, the following analysis is based upon the military careers of 70 individuals—42 native-born and 28 foreign-born. These were the only individuals for whom complete service records could be found.

Brookhaven's foreign enlistees were all mustered in during November 1862 and may well have been the group mentioned by the town supervisor in his journal: "Nov. 5th, 1862 In New York and arranged for aliens in Cochran Brigand [*sic*] for men enough...to fill the quota of the town for \$80 each a saving to the town of \$220 to what I had paid previous as the other towns and counties had got their supply of men we could make better terms."²⁹ All but 8 of the 28 Brookhaven enlistees for whom records were found were Irish.

It has been estimated that 15 percent of the soldiers from New York were born in Ireland.³⁰ Their motives for enlisting were varied: some thought it would be good training for the time when Ireland would strike a blow for freedom from England; others believed that in accepting America's privileges they must also accept the duties; and many enlisted from mercenary motives.³¹ Once they were in the army, the Irish proved to be hard fighters, men who could be relied upon to carry their share, and more, in battle. Many of them fought as a unit in the Irish Brigade and Cochran's Brigade, which included the 155th New York State Volunteers, the regiment that these Brookhaven foreign-born served in. The Irish carried into battle their distinctive green

flags. Their battle losses were always high: they suffered heavy casualties at Gettysburg, Antietam, Wilderness, Cold Harbor, North Anna, and Petersburg. They were virtually massacred at Fredericksburg during the assault on Marye's Heights. Southern generals, however, praised the courage of these Irish soldiers. George Pickett, for example, wrote, "The brilliant assault...was beyond description....cheer after cheer at their fearlessness went up all along our lines." Robert E. Lee said that "never were men so brave." A. P. Hill, perhaps, said it best when he exclaimed: "There are those d— green flags again!"³² And the historian Ella Lonn pays them tribute when she writes, "Undeniably the Irish added a picturesque and dramatic quality beyond that of other races to the motley array of the Union Army."³³

Although the Irish had a reputation for bravery, 35 percent of the 20 who enlisted from Brookhaven in late 1862 deserted. The overall desertion rate among Brookhaven's foreign enlistees was 39 percent, or 11 of the 28 studied. Seven individuals deserted within the first month, three men deserted after serving approximately eight months, and one served for thirteen months.

As the 155th New York State Volunteers, in which all but 2 of Brookhaven's foreigners served, had been engaged in only minor skirmishes during the time these deserters served, battle fatigue was not the motive for deserting. These enlistees were men with no apparent ties to the people of Brookhaven. Nor did their regiment supplant their alienation: it was predominantly European, but non-Irish, and the few Brookhaven foreigners who enlisted together were scattered among many companies. Thus it appears that there was no community spirit binding these individuals to their military obligations.

Native-born volunteers from Brookhaven also had a high rate of desertion: eight (19 percent) of the 42 studied deserted. These 42 men became members of nine different organizations, with the largest group, made up of 22 men, joining the Second New York Cavalry. Five Brookhaven men deserted from this unit after serving less than a month. Although the Second Cavalry was active throughout the war, no action occurred while these men served. Four men deserted on 26 October 1862, all with the last name of Albin. The fifth man left the following day. All of these men were listed in the 1860 federal census, but only Thomas B. Albin appeared in the 1865 state census where, under "Remarks" regarding his war service, is the comment, "Skedaddled after two months." One man from Brookhaven, who enlisted in the 145th New York State Volunteers, deserted after five months. The regiment had been involved in virtually no fighting during his term. There was one volunteer in the Eleventh New York Volunteer Cavalry, also known as Scott's 900. He deserted within five months, after having been involved in very little fighting. The final native-born deserter was one of two men who enlisted in the First Mounted Rifles, New York State Volunteers. He had served fifteen months, during which time his regiment was not involved in heavy fighting, although it took part in many minor affairs.³⁴

In addition to the organizations already mentioned, American-born enlistees

from Brookhaven also joined the Third New York Artillery, and the 92d, 131st, 158th, and 159th New York State Volunteers. All of these regiments participated in battles, some units losing hundreds of men during the war.

Of Brookhaven's 70 enlistees for whom complete service records were found, 5 were wounded, but later mustered out with their companies; 10 were captured, and 3 of these died in the prison at Andersonville; 3 died of disease; 4 were killed in battle; 10 received early discharges for disability; 19 were mustered out at the war's end; and 19 (27 percent) deserted.

The war records of the men who enlisted at Brookhaven suggest a certain instability, which is confirmed by an examination of the 1860 federal and the 1865 state censuses. Of the 70 enlistees from Brookhaven studied, only 6 were listed in the 1860 census, 9 in the 1865 census, and 10 appeared in both, for a total of 25 men, or 36 percent. Of those found in at least one census, only 2 were foreign-born, neither of whom deserted. Of the 42 native Americans studied, only 23, or 54.3 percent, appeared in at least one census, an indication that Brookhaven at this time may have been a rather unsettled community with a great deal of mobility among its inhabitants.

It is difficult to determine the mood of Brookhaven town during the Civil War, partly because there were no newspapers published there. In some of the town's villages there were Ladies Aid Societies organized to give aid and comfort to soldiers away from home by supplying them with otherwise unobtainable items, but no records of their specific activities could be located. The published town records show only one instance of aid to families of volunteers. The 7 March 1865 Trustee Meeting "Ordered that the child of James Downs who is in the army as a volunteer be allowed Seventy five cents per week from this date until further notice."³⁵ In general, it appears that Brookhaven was not a cohesive community during the Civil War, and this lack of unity was reflected in the high rate of desertion of its enlisted men. Even discounting the foreign-born, Brookhaven still showed a 19 percent desertion rate, high in comparison with the national average of approximately 10 percent.³⁶

Southold town, on the other hand, a more cohesive community, tallied only a 3 percent rate of desertion. In 1873 a local historian noted,

The principal part of the land of this town is cleared, and being divided into farms of moderate size is kept in an excellent state of cultivation.... This town presents almost a solid and continuous settlement, from one end of its territory to the other. Nearly the whole surface is occupied by farms, and the settlements joining each other in unbroken lines are compact enough to be pleasant, and still afford sufficient room for the convenient prosecution of farming operations.³⁷

Two newspapers had been in existence for some time prior to the war, and they both continued publication throughout. *The Republican Watchman* became a protest, or Copperhead, paper. Its editor, Henry A. Reeves, was so outspoken that on 3 September 1861 he was arrested by federal authorities

and confined in Fort Lafayette, a detention center for political prisoners, until early in October 1861.³⁸ The *Suffolk Times*, on the other hand, was ultrapatriotic, and in 1862 the editor, John J. Riddell, after drumming up enthusiasm for volunteering, left the paper to enlist in the army. Cordello D. Elmer continued publication of the *Times*, following Riddell's war policies, until 1865 when Riddell returned at the close of the war.³⁹

The manuscript Southold town Records first mention the war on 7 April 1863 when the citizens voted to raise \$10,000 to pay bounties and monthly allowances to the families of volunteers. On 5 April 1864 citizens of the town voted to pay up to \$400 per substitute and to raise an additional \$20,000 for the families of volunteers, who received \$27,900 more on 4 April 1865.⁴⁰ In the village of Orient a Union meeting resolved to canvas for subscriptions for the benefit of volunteers and their families. An item in the *Suffolk Times* on 4 September 1862 reported that a special town meeting in Southold voted to give each volunteer's wife \$8 per month, and each child under eleven \$2 per month.⁴¹ The strong support given to the families of volunteers indicates that Southold accepted responsibility for those who might be left destitute in the absence of the breadwinner, and this unquestionably had a positive influence on those serving far from their loved ones.

Of the 120 men enlisting from Southold town in late 1862, 84 were native-born and 8 foreign-born; the birth places of 28 are unknown. All of the foreigners (3 Irish, 4 Germans, and one Englishman) were listed in the 1860 federal census, and 2 were located in the 1865 state census. These people were settled in Southold and did not immigrate in order to participate in the war. None of them deserted.

The vast majority of the Southold enlistees studied joined the 127th New York State Volunteers (100 of the 120), and all but 3 of these 100 enlisted within Southold town. In the summer of 1862 a man with family ties in Southold, Stewart L. Woodford, assistant U.S. district attorney of New York, resigned his position in order to organize a company of the 127th on the eastern end of Long Island, creating much excitement in the area.⁴² One young man wrote in his diary:

Mon, Aug 18, 1862, Southold—This evening Stuart [*sic*] L. Woodford commenced a series of lectures (to enlist recruits for a company to belong to the Regiment of Monitors now being raised in the first Senatorial District of this State) in the Presbyterian Church—one of which is to be delivered on consecutive evenings in each village in this town. After the meeting 22 joined the co., myself among the number.⁴³

Only one Southold man deserted from this regiment, and he did so prior to his mustering. The 127th did a great deal of moving about but saw little fighting, the heaviest being at Honey Hill and Mackey's Point, South Carolina, in November and December 1864.⁴⁴

The 165th New York State Volunteers had 15 Southold men, two of whom deserted. This regiment saw a good bit of hard fighting, especially at

Port Hudson and in the Red River Campaign. One deserter left after nine days as a soldier, and the other departed two months after being wounded at Port Hudson, having served for eleven months.

The 170th New York State Volunteers had only 3 Southolders, one of whom deserted forty-one days after mustering in. Although this regiment participated in heavy fighting and sustained severe casualties, the deserter never saw any fighting at all—he was gone long before the action began.

One enlistee each joined the 163d and the 176th New York State Volunteers. Both regiments were engaged in battles with severe casualties reported. Neither of these men deserted.

The record on the Southold enlistees in late 1862 stands as follows: 7 were wounded, but later mustered out with their companies; 4 were captured, of whom 2 died as prisoners; 12 died of disease; 12 were discharged with disabilities; 3 were killed in action; 78 were mustered out with their companies; and 4 deserted. All 4 deserters had enlisted in New York City rather than in Southold.

Of the 120 enlistees from Southold studied, 18 appeared in only the 1860 federal census, 27 only in the 1865 state census, and 46 appeared in both—75 percent, as compared with Brookhaven's 36 percent. None of the Southold deserters were found in either census.

Southold was a more settled community than Brookhaven before and during the Civil War. There was a deep community spirit as evidenced by the *Suffolk Times* reports of Union rallies and meetings and the raising of "Liberty Poles" in several villages. The townspeople also showed their concern through financial support of the families of volunteers, voting at least \$50,000 for that purpose. The Ladies Relief Union of Southold village met weekly at the Southold Institute to sew for the soldiers.⁴⁵ On 25 January 1862 the *Sag Harbor Corrector* published a report that the Ladies Aid Society of Mattituck, a Southold town village, had sent a variety of bedding and clothing to the soldiers.⁴⁶ The newspapers published letters sent by soldiers telling of their activities. In 1865 the *Suffolk Times* carried an item reporting that "Barton Skinner, a member of Co. H, 127th NYV arrived home on Friday...reports all the Suffolk County boys well and in good spirits."⁴⁷ Many of the newspapers eventually reached the soldiers through families and friends, further strengthening the bonds with home. During the national crisis of the 1860s Southold town responded as a closely knit community; citizens supported each other, as well as the soldiers away from home. This cohesiveness probably contributed to the extremely low desertion rate (3 percent) of Southold's volunteers.

Foreign birth was the most common characteristic of the 23 deserters from Brookhaven and Southold, another indication of the community's role in the decision to desert. At least 12 of the deserters (the birth places of two are unknown) were born in Europe. No other pattern emerged so clearly. These 23 deserters ranged in age from 18 to 42. The average age was 26.43, somewhat higher than the average age of the entire group of enlistees (23.47).

However, the average age of deserters from Brookhaven was 25.05, very close to the average age of the town's enlistees (25.88), while the average age of deserters from Southold was 30.74, much older than the average age of its enlistees (22.83). The occupations of 4 of the deserters are unknown; 4 were farmers; 4 boatmen or sailors; 3 laborers; 2 ship carpenters; 2 blacksmiths; and one each carver, cigarmaker, machinist, and printer—an assortment that does not seem to indicate any particular pattern. Thirteen of the men deserted within the first month of their muster in, 8 within the first year, and the remaining 2 left after thirteen and fifteen months. Only one of these deserters was wounded in battle; as he left shortly after, that may have prompted his decision. Of the 23 deserters studied, 5 appeared in the 1860 federal census, and only one appeared in both the 1860 federal and the 1865 state censuses, an indication that they probably were relatively mobile individuals with no strong community bonds.

In comparing the responses of Brookhaven and Southold towns to their obligations, and the desertion rates of their enlistees (83 percent of the deserters studied enlisted in Brookhaven), it appears that a community's degree of unity and support had a direct influence on its soldiers' decision to desert. This thesis also explains the high rate of desertion among the foreign-born, most of whom lacked a strong community bond within the United States. Those foreign-born who appeared in the censuses, indicating settlement in the communities, did not desert. Geographically, Southold was generally settled, with easy communication between its component villages, while Brookhaven had widely scattered villages and large tracts of woods between, circumstances not conducive to easy intercourse. Southold seemed to find it easier to enlist men, as exemplified by the 9 February 1865 *Suffolk Times* report that Southold's official quota to be filled under the latest draft call was zero, while 19 were due from Brookhaven.⁴⁸ The 100 men from Southold enlisting in one company of the 127th Regiment created a small community of Southolders away from home, another factor that probably discouraged desertion.

The available evidence on enlistments and desertions indicates that Southold provided a stability lacking in Brookhaven, which its soldiers carried with them into military service. These Southold men had a strong sense of community support and approval, which not only added to their feelings of personal responsibility but also strengthened their obligation to meet the expectations of their home community.

NOTES

1. Fred Albert Shannon, *The Organization and Administration of the Union Army 1861-1865* (Gloucester, Mass.: Peter Smith, 1965) 1:22.

2. Marvin A. Kreidberg and Merton G. Henry, *History of Military Mobilization in the United States Army 1775-1945* (Washington, D.C.: Dept. of the Army, 1955), 104.

3. *Ibid.*

4. *Ibid.*, 108.

5. Shannon 1:291.
6. Shannon 2:57.
7. Edwin F. Worthington to his mother, 25 December 1861, Pennypacker Long Island Collection, East Hampton Free Library.
8. Phinias E. Johnson to his cousin, 21 April 1861, Whittaker Historical Collection, Southold Public Library (hereafter cited as WHC).
9. Joshua Payne to his brother, 18 December 1862, WHC.
10. Shannon 1:259.
11. Kreidberg and Henry, 109-10.
12. *Ibid.*, 110.
13. Ella Lonn, *Desertion During the Civil War* (Gloucester, Mass.: Peter Smith, 1966), 141.
14. *Ibid.*, 142.
15. Shannon 2:61.
16. Lonn, 138.
17. *Ibid.*, 219.
18. E. B. Long and Barbara Long, *The Civil War Day by Day: An Almanac, 1861-1885* (Garden City: Doubleday, 1971), 714.
19. Lonn, 223.
20. *Ibid.*, 222.
21. Carl Sandburg, *Abraham Lincoln: The War Years* (New York: Harcourt, Brace and World, 1939) 1:554.
22. Long and Long, 707.
23. *Ibid.*
24. Information on the individual men was obtained from a variety of sources. The names and other data on the Brookhaven volunteers were taken from a set of enlistment papers preserved at the Suffolk County Historical Society, Riverhead, New York. The Southold names came from William S. Pelletreau's *A History of Long Island*, vol. 2 (New York: Lewis Publishing Co., 1903). The service record of each man was found in the *Annual Reports of the Adjutant General of the State of New York for the Years 1893-1905*, 43 vols. additionally entitled *Registers of New York Regiments in the War of the Rebellion* (Albany, New York). The 1860 Federal Census, Schedule 1, Population (microfilm, State University of New York at Stony Brook), and the 1865 New York State Census (manuscript, Pennypacker Long Island Collection, East Hampton Free Library), were used to determine the geographic mobility of the individuals.
25. Richard M. Bayles, *Historical and Descriptive Sketches of Suffolk County with a Historical Outline of Long Island* (Port Washington: Ira J. Friedman, 1962), 224.
26. Long Island follows the New England tradition of referring to townships as towns.
27. Memo from the Journal of Nathaniel Miller, 5 November 1862, Brookhaven Town Historian's Office, Port Jefferson [since this article was published, the Brookhaven Town Historian's office has moved to Medford, New York].
28. Shannon 1:179.
29. Miller Journal, 5 November 1862.
30. Joseph M. Herson, Jr., *Celts, Catholics, and Copperheads: Ireland Views the American Civil War* (Ohio State Univ. Press, 1968), 17.
31. Ella Lonn, *Foreigners in the Union Army and Navy* (Baton Rouge: Louisiana State Univ. Press, 1951), 74-75.
32. Herson, 18.

33. Lonn, *Foreigners*, 648.
34. Information on the battles and campaigns of all regiments was obtained from Frederick Phisterer, *New York in the War of the Rebellion, 1861 to 1865* (Albany: J. B. Lyon Co., 1912).
35. *Records of the Town of Brookhaven, Suffolk County, New York, 1856-1885* (New York, 1893), 234.
36. Shannon 1:179.
37. Bayles, 360, 366.
38. Margaret O'Connor Bethauser, "Henry A. Reeves: The Career of a Conservative Democratic Editor, 1858-1916," *Journal of Long Island History* 9 (Spring 1973): 39-40.
39. *Suffolk Times* (Greenport), miscellaneous clippings, WHC.
40. Southold Town Records, Town Hall, Southold, New York.
41. *Suffolk Times*, 9 May 1861, 4 September 1862.
42. *Sag Harbor Corrector*, 23 August 1862, microfilm, Brooklyn Historical Society.
43. Diary of Ed. F. Hunting, 18 August 1862, WHC.
44. See note 34.
45. Minute Book of the Southold Ladies Relief Union, 14 August 1861, WHC.
46. *Sag Harbor Corrector*, 25 January 1862.
47. *Suffolk Times*, 4 May 1865.
48. *Ibid.*, 9 February 1865.

Reviews

Richard F. Welch. *An Island's Trade: Nineteenth-Century Shipbuilding on Long Island*. Mystic, Ct: Mystic Seaport Museum, 1993. Illustrations, maps, two appendixes, notes, bibliography, index. Pp. xiii, 145. \$20.

In *An Island's Trade: Nineteenth-Century Shipbuilding on Long Island*, Richard F. Welch has created an outstanding work of regional history, which dovetails topically and chronologically with William N. Petersen's "*Mystic Built*": *Ships and Shipyards of the Mystic River, Connecticut 1784-1919*, produced by the same publisher three years ago (reviewed in *The American Neptune*, Winter 1990). William A. Baker's *A Maritime History of Bath, Maine and the Kennebec River Region* (Bath, ME, 1973), and Dana A. Story's *Frame-Up!: The Story of Essex, Its Shipyards and Its People* (Barre, MA, 1964), combine with the Mystic Seaport Museum books to form an evolving modern history of shipbuilding in the northeastern United States.

Long Island-built vessel types carried cotton to England, delivered gold-seekers to California, traded throughout South America, and hunted whales over all the world's oceans. The backbone of their existence, however, always remained with the schooners of the American coastal trade, which Congress closed to foreign-built bottoms in 1818. Refreshingly, *An Island's Trade* does not blame the Civil War for the decline of the American merchant marine and shipbuilding industries, but cites broader, more realistic causes relative to market economy.

Sticking to the time parameter of his title, Welch initiates his story during the 1790s by tracing the career of John Willse, an emigrant from nearby New Jersey to the tiny hamlet of Poquott. He discerns a striking pattern of interrelationships Willse fostered, which spawned Port Jefferson's famous Bayles family of shipwrights. Beginning with the 1820s, the author maintains a running comparative review of the industry in New York City compared with that on Long Island as the nineteenth century progressed. Manhattan had twenty shipyards employing six thousand men by 1825, while Port Jefferson only managed to produce one ship a year between 1820 and 1825. Yet, "by 1880 shipbuilding in Manhattan was described as 'extinct,' although it survived longer in Brooklyn" (17).

Welch also identifies the post-War of 1812 economic events that affected shipbuilding both positively and negatively: the dumping of British manufactures on the American marketplace immediately after the war, the

growth of the New York-Liverpool trade (which soon came to equal all other American merchant marine enterprise combined), the financial panic of 1819, and the opening of the Erie Canal in 1825. While he speaks to the advent but slow intrusion of steam-powered vessels into the wooden maritime world, Welch wisely refrains from an in-depth study of the reasons for this aberration.

Early in his discussion of the Long Island shipbuilding industry, the author resolves the anomaly presented by Brooklyn—which anchors the island's western tip—by appropriately classifying it “geographically and economically” (3) among the industries supported by metropolitan Manhattan, rather than those of the rural communities covered by *An Island's Trade*. He also establishes the affect of the Island's geophysical properties on the location of its shipyards: “Topography, not any special advantage in talent possessed by North Shore residents, dictated the North Shore orientation of the business. The Sound shoreline of Long Island is blessed with several deep fjord-like harbors gouged out by the retreating glaciers” (3).

Although the “Golden Age” of American wooden shipbuilding occurred between 1840 and 1855, Welch introduces a unique human factor that is a central construct of his thesis, and places the Island's own peak years into a wider time span. Opening with, “Long Island reveals something the national experience does not,” he explains how the “practitioners of an archaic industry could maximize opportunities on their waterfronts to perpetuate their craft after it had become extinct in its areas of former strength” (xii). He pinpoints labor as the underlying cause of this success, which came during a period when other, more traditional areas suffered decline: “The lower costs of Long Island shipbuilding made this possible” (xii), an important consideration he regularly reiterates.

While the author's concentration on Port Jefferson and, to a lesser extent, Northport, is supported by his own data, the dismissal of the East End with only lip service paid to Southold and Greenport is questionable. There were, for example, at least three functioning shipyards in Sag Harbor during the War of 1812, but Welch states: “Sag Harbor, although one of the nation's major whaling ports in the antebellum period, produced a mere handful of vessels” (4-5). Nevertheless, previous to the antebellum period, when the British blockade succeeded to a great extent in shutting down the Chesapeake Bay builders, some Baltimore privateersmen had new vessels constructed on Long Island. The most famous of these, the *Spark*, a 14-gun, 320-ton brig, eventually ended up in the U.S. Navy, and the historian Howard I. Chapelle claims she was the fastest ship in the fleet during 1817. Sag Harbor, therefore, must have figured more strongly in the annals of local shipbuilding than Welch credits. Also, Oyster Bay to the north, Freeport to the south, and Three Mile Harbor to the east, all have all supported successful twentieth-century shipbuilding firms, whose nineteenth-century origins should fall into *An Island's Trade's* purview.

Although “shipbuilding on Long Island was a regional manifestation of a major national enterprise” (130), one turns the last page of *An Island's Trade* with the belief that its people went about the business in their idiosyncratic

manner and, with the exception of Essex, Massachusetts, succeeded in working at wooden shipbuilding longer than other, larger locales. The text and data of Welch's work class his book as an essential read for antiquarians, historians, maritime enthusiasts, ship modelers, or anyone else interested in the general, maritime, social, or industrial history of Long Island. They also underscore a gaping hole in the lore of shipbuilding, the need to replace John H. Morrison, *History of New York Ship Yards* (New York, 1909), with an updated study of the New York City industry.

W. M. P. DUNNE

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Esther Newton. *Cherry Grove, Fire Island: Sixty Years in America's First Gay and Lesbian Town*. Boston: Beacon Press, 1993. Illustrations, notes, index. Pp. 408. \$24 (cloth).

Esther Newton faces multiple challenges in writing the cultural history of Cherry Grove, the oldest continuously inhabited resort community on Fire Island. In part, her narrative chronicles the tensions common to a history of any resort area. Cherry Grove's politics and past were shaped by struggles between residents and daytrippers/vacationers, owners and renters, and advocates of development and their opponents. Cherry Grove's singularity as a resort however, lies in its history and public identity as a vacation spot for gay and lesbian Americans.

Newton's book performs the historian's task admirably. She locates and interviews about one hundred men and women (gay and straight) important in Cherry Grove's past, enriching her narrative with their voices. She outlines four stages in the community's history: how the Grove became gay in the thirties and early forties; its heyday as a 'gay country club' in the post-World War II period; the evolution of the Grove as a commercial gay resort in the prosperous sixties; and the impact of the gay liberation movement on vacations in the post-Stonewall era.

As a detailed chronicle of the economics, politics, and institutions of a single locale the book claims a place among the best historical community studies. Newton succeeds in vividly recreating the climate that produced and has sustained Cherry Grove as a cultural space for gay men and lesbians for over sixty years. It also exposes the junctures and tensions that developed within the gay world over time. In arguing that the resort was both apolitical and subversive Newton suggests that the ability to define space as gay space was both normalizing and liberating for gay people, while its presence and distinctively camp sensibility challenged heterosocial norms.

The gay history of Cherry Grove might be dated as early as 1882, when Oscar Wilde, on tour in America, visited the Perkinson Hotel. Newton's fascinating first chapter locates the process that transformed the Grove from a community of local families to one that included gay men and lesbians in the thirties. A loose network of gays and lesbians connected to the New York

theatrical world began visiting the island. The Grove offered a rustic resort that emphasized natural beauty over such creature comforts as electricity. Small wooden cottages clustered around the community's single hotel. The 1938 hurricane devastated the island, dramatically lowering land and property values. Many earlier local residents chose not to rebuild. Those who stayed, already suffering financially from the Depression, became more reliant on rental income and perhaps less particular about their renters. Divisions remained and Newton notes the establishment of the Property Owner's Association, in which local Long Islanders and heterosexuals predominated.

During the forties and fifties the identification of the Grove as a hospitable location for gay and lesbian vacationers was strengthened. Newton links this period in the history of the Grove to the growth of a national gay subculture following World War II, and to the development of Long Island as New York City's premier commuter suburb. The Grove began to attract gays and lesbians from outside the theater and literary world, although vacationers remained largely white and middle-class. This period, bounded by the war and the introduction of electricity in 1960, Newton names the "Gay Country Club." The resort remained largely homogenous, private, and genteel. Vacationers could be 'out' (openly gay) in the community's public spaces. Important community institutions were established, such as the Arts Project of Cherry Grove, dedicated to promoting the arts and the only place where renters could participate collectively in the life of the resort. Property owners continued to be organized in their own association, and conflicts between the two groups were numerous. These economic divisions prevented gay solidarity in the community, as some gays became owners while many more (particularly as the community's reputation attracted working class, black, and Latino gays and lesbians) remained renters or daytrippers.

This section is particularly rich in its evocation of community life. The Arts Project sponsored campy theatrical Follies in the newly renovated Community House theater, cross-dressing softball games on the beach, and winter fund-raising parties in New York. Duffy's Hotel continued to provide a location for the Grove's lesbians, gay men, and straights to socialize together. These institutions and events extended the space for gays and lesbians from private parties in homes, and began to build greater ties to the Grove as a gay place. Newton explores the importance of a gay-identified and safe place for gays and lesbians in the repressive climate of the times. The McCarthy hearings (televised in 1954) targeted homosexuals and linked 'deviant' sexuality to radical politics in the eyes of many Americans, further eroding the possibilities for openness about homosexuality. Most gays and lesbians Newton interviewed from this period recalled the sense of liberation and freedom that visits to the resort provided as strongly contrasting with the fear and silence that pervaded their work and city lives.

The Grove as gay and lesbian safe space was severely challenged in this period, as well. The murder of a gay man in the hotel in 1949 was sensationalized in the press, and provided the rationale for increased police

surveillance and harassment, as well as periodic invasions by straight 'fag bashers.' In the early and mid-fifties police raids directed at gay males resulted in a series of embarrassing and well-publicized arrests. Following the McCarthy hearings, last names began to disappear from the Arts Projects theatrical programs, and a long-held belief that the island's isolation provided protection eroded. Newton points out that the island setting and laissez-faire politics provided some protection from unwarranted harassment. The police were located in Patchogue (the Grove had no police stations or schools) and seem not to have acted without being called out by residents. Ironically, the negative publicity about the Grove in the fifties also advertised its existence to a larger group of gay men and lesbians in the metropolitan era.

The third stage of the Grove's history Newton identifies as beginning in the early sixties and continuing through the seventies. It was characterized by dramatically increased commercialism, more ethnic and racial diversity among vacationers, greater tensions between property owners and renters, and conflicts among lesbians, straight residents, and a growing, largely gay male public culture whose practices excluded them. The preconditions for these changes included gay pulp fiction and magazines which popularized the resort among gays, capital investment in the Grove's infrastructure (electricity, water system, telephone) which altered the character of the resort, and easier access as the Long Island Expressway passed Sayville and reached Riverhead by the end of the decade. Finally, Newton identifies a group of gay real estate developers and businessmen, some backed by Mafia money, who began to market and develop the resort aggressively for a gay male clientele.

In the rapidly changing resort, Newton highlights differences that began to undermine an earlier gay solidarity built around homogeneity and fear of outside interference. To existing economic tensions between gay landlords and renters were added strains produced by class, ethnic, gender, and racial differences. Newton argues that these tensions, present in any resort, had an additional dimension in the Grove. For example, degrees of effeminacy and certain forms of drag were taken as markers of class difference within the gay male community.

Newton seems least sympathetic to this era in the Grove. In part, she reflects the positions of her informants, many of whom are from the Grove's earlier periods. Central to their vision of the Grove was an appreciation of the area's great natural beauty, the artistic creativity and vitality of older community institutions, and skepticism about the impact of rapid commercialization and growth. Newton duly notes the elitism and homogeneity of the gay country clubbers, but she remains attached to the recovery of their sensibility and history. Her informants for the later period are less compelling and do not as fully reflect the community or its changes. She has no African American, Latino, or Asian informants for this period. As a result, as she points out, the experiences of white ethnic men and, to a somewhat lesser extent, women among the newcomers are better represented.

Newton is also critical of the Grove's somewhat anomalous position in the

sixties and seventies. As gay liberation developed, the Grove remained almost defiantly apolitical, a place to relax, not to march. Parties flourished, political causes did not: as closets opened the Grove remained important as a place for those for whom the doors were still closed. In this period, the balance between gay men, lesbians, and straights shifted as gay men crowded into the resort and a culture that included anonymous, promiscuous sex impacted dramatically on the community. Newton is careful to contextualize her comments about gay male cruising in the Racks, particularly in light of HIV, abusive press attention, and repressive police raids in the mid-sixties.

What Newton most regrets is the loss of a community in which no one group held the balance of power. In the seventies, intensive commercialization and gay male purchasing power dramatically altered the resort. Public spaces and forms of entertainment were created with gay men exclusively in mind. Newton is also able to document gay male prejudice towards lesbians, particularly on the part of landlords who refused to rent to women. Lesbians had been among the Grove's founders, and, until the sixties, held relatively privileged positions in the community. Newton is especially fond of these 'ladies' whose class, artistic connections, and financial resources helped ensure acceptance. Lesbians who arrived after the sixties were frequently less privileged, and class and cultural differences divided older residents from the new renters and daytrippers. Newton establishes that gay men were more likely to welcome male newcomers, opening the huge house parties and costume balls that characterized gay male socializing to all who had costumes. Lesbians tended to socialize in smaller settings through established social networks. They lacked both the numbers and the solidarity to challenge gay male control of the resort. Not until the seventies, when a significant number of lesbians became homeowners and business owners, did leadership emerge that was able to work effectively with gay men on community issues.

By the mid-seventies, the Grove faced a serious threat from outsiders. The commercial success of the resort was founded on the gay liberation movement's success in fostering pride and openness among homosexuals in the period after Stonewall. In the Grove disco was king, replacing the earlier theatricals. Straight tourists flocked to see the scene and were frequently hostile and intrusive, threatening the security and safety of gay and lesbian residents. Daytrippers were the lifeblood of the Grove's businesses, but sheer numbers threatened its character as a gay space. In the ensuing debate Newton argues that Grovers were forced to become more like other resorts in the area, restricting access, regulating conduct, and accepting some police presence. More importantly, the group (the Ad Hoc Committee) organized to confront the problem abandoned the country club model, shifted power to a younger generation, and moderated the excessive commercialism of the seventies. As Newton's history ends, the Grove seems a more cohesive community, still dedicated to fun but with less innocence about politics.

Among the questions raised by Newton's study are important issues about

the nature of community and identity. She reveals the impact of racial, class, gender, and ethnic differences within the gay community. The history she presents asks us to consider how these differences shape gay identities and community as definitely as homophobia. Prejudice, harassment, and discrimination exert a stabilizing and unifying force that is still unable to fully counteract the pull of American individualism and commerce. *Cherry Grove* asks us to consider the degree to which a sense of gay culture developed from within the community, or was premised on a response to outside pressures. Newton returns to public cultural events as locations for the production of common, if contested, definitions of identity. Camp humor, drag performance, and the commonplace, in expression of affection, sexuality, and relationship among gay men and lesbians in the Grove forge a distinctive if unevenly shared culture.

BARBARA BALLIET

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John H. Long, ed., Kathryn Ford Thorne, comp. *Atlas of Historical County Boundaries: New York*. New York: Simon & Schuster, 1993. 62 counties, approximately 300 maps, tables, bibliography. Pp. 192. \$50.00.

Although few scholars will want to add this specialized fifty-dollar volume to their personal collections, many may have occasion to consult it at a library. It is a worthwhile addition to library reference collections.

This is not the first atlas of historical county boundaries. Knowledge of county boundary changes is important not only for local historians, but also for genealogists, and this has created a market for such works. In particular, this volume invites comparison with the recent William Thorndale and William Dollarhide *Map Guide to the U.S. Federal Census, 1790-1820* (Baltimore: Genealogical Publishing Co., 1987), which provides reasonably adequate small-scale maps of county boundaries for all fifty states. It also includes information about the availability of federal census records for each county, and has a modest bibliography of sources for further research.

As one would expect, as it covers only a single state, the Long and Thorne volume provides more detailed and comprehensive coverage of New York. It also comes with impressive scholarly credentials. It is part of a forty-volume series produced by the Newberry Library with support from the National Endowment for the Humanities. It covers the entire history of New York from the earliest colonial period to the present—a much wider swath of time than that covered by Thorndale and Dollarhide. The maps in the New York atlas are relatively detailed. And the book is enriched by a chronology of county boundary changes, a table of colonial, state, and federal censuses in New York, and a useful bibliography. It lacks, however, a valuable feature in the Thorndale and Dollarhide volume—a listing of information about the actual availability of Federal census records for each county.

In spite of the massive scholarly effort that went into this work, it can

serve as no more than a starting point for serious students of local history. Although the maps are relatively detailed, they still do not show county boundaries with the precision of a good street map. Moreover, it is inevitable that errors will creep into a work covering an entire state that may be significant for specialists. In the case of Long Island, there is, for most purposes, only one significant county boundary change, albeit one that had major repercussions for the development of our area. This is, of course, the creation of Nassau County from Queens County in 1899. This change is duly noted by Long and Thorne, and it contains a useful reference to the state law that authorized the new county. However, the atlas completely misses a smaller change—the transfer of Lloyd Neck from Queens County to Suffolk County, in 1886 (a result of Lloyd Neck's being moved from the town of Oyster Bay to the town of Huntington). This oversight is not likely to affect many people's research, but it is disconcerting, especially since the transfer is noted by Thorndale and Dollarhide. This underlines the moral that reference works of this sort are useful starting points for further research, but should not be taken as infallible guides.

DAVID YEHLING ALLEN

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John Esten with Rose Bennett Gilbert, photographs by Susan Wood. *Hampton Style: Houses, Gardens, Artists*. Boston: Little Brown, 1993. Illustrations, notes, bibliography, index. Pp. 240. \$50.

There is no point in expecting a book called *Hampton Style* to be more than a hybrid between shelter magazine journalism and a name-dropping gossip column. Visitors and residents of the Hamptons will no doubt enjoy *Hampton Style* for summer browsing. But, as a researcher who values periodicals and books of the 1920s and 1930s for the information about (now) historic houses and gardens, I regret the lost opportunity in *Hampton Style* to provide more substantial documentation of a locale that can serve as a source book of three hundred years of residential design and social history.

Historians of the future will prefer genuine shelter magazines, as they are more selective than *Hampton Style* about the houses, interiors, and gardens that they feature and illustrate them more fully and with more informative details about key artifacts. Because the authors obviously wanted to include as many rooms, houses, and gardens as possible, few get more than perfunctory coverage. Many of the interior photographs are taken from such odd angles or cropped so strangely that it is difficult to imagine what the whole of a room looks like, and the captions often refer to a detail so small or so deep in the background as to be almost invisible, or tell you that you are looking at a pair of chairs flanking a window or some such self-evident information.

More adequate space is given to the opulent, over-the-top 1980s' interior design style in representative professional work by Betty Sherrill, Mark Hampton, Albert Hadley, and David Easton, replete with chandeliers, antique

furniture, chintz, and oriental porcelain. Fine depiction of the studios and landscapes of the artists Larry Rivers and the late Alfonso Ossorio indicate some of the possibilities that have been missed in the cursory portrayals of most of the book.

I do like the way that relevant period photographs and paintings have been paired with many of the illustrations of exteriors. But I find it extremely irritating that so few views of buildings are shown so that they can be identified from the street. In some cases this may protect the privacy of the owners, but there is surely no reason in the mini-essay on the quirky 1884 Queen Anne shingle style house of the artists Thomas and Mary Nimmo Moran not to note that it still exists, right at 229 Main Street in East Hampton, especially since it will soon be a part of Guild Hall. And why not say that 187 Main Street, East Hampton, is the site of the charming Victorian wrought-iron mourning panels in the wall in front of a peculiarly hybrid mansard roofed house? The absence of a street-side view or an address is a particular loss because the authors do include a rare period photograph showing the simple form of the house when first built in 1871.

The text provides a breezy review of the early settlement of the various South Fork villages and about the changes brought by the arrival of railroad and its cargoes of artists and "Summer People." As few sources are cited, it is difficult to check the text for accuracy, but in material that is familiar to me I found numerous errors. Some of them can be attributed to carelessness, like placing the origin of the first Southampton settlers in Lynn, Connecticut rather than Massachusetts, and using a photograph of "Home Sweet Home" to illustrate the neighboring Mulford Farm in East Hampton. Other errors are puzzling, like locating Ruger Donaho's garden painting of Japanese anemones as set in a neighbor's garden rather than his own, or attributing placement of the colonnades of busts of Roman dignities outside the Parrish Art Museum in Southampton to its founder, rather than explaining that their exterior exile was a later administrator's rejection of Samuel Parrish's policy of filling the museum with reproductions of classical works.

Landscape and architectural historians will want to skim the book for unfamiliar pictorial material. I was delighted to find a reproduction of William V. Birney's 1899 *View of Sag Harbor* that showed the Old Whaler's Church and the Methodist Church, both complete with the elaborate steeples that they lost in the 1938 hurricane. Its color photography (outstandingly reproduced) and some interior views make up the only advantages I find in *Hamptons Style* over the *AIA Architectural Guide to Nassau and Suffolk Counties, Long Island* (Dover Publications, 1992 [ed. note: reviewed in *LIHJ* 5 {Spring 1993}:254-55]). There is little stylistic or historic analysis of architecture except for a few quotes from other works like *East Hampton's Heritage*, ed. Robert J. Hefner (New York: W. W. Norton, 1982).

Ronald G. Pisano's *Long Island Landscape Painting 1820-1920* (New York Graphic Society, 1985 [ed. note: reviewed in *LIHJ* 2 {Fall 1989}:135-37]) is a far better source for information about early artists and their homes

and studios. Just about the only notable painting that cannot be found in Pisano's survey is Mary Nimmo Moran's charming 1895 painting of her neighbor's cottage plantings, *Dr. E. Osborn's Garden*, that is part of the collection of Moran holdings of the East Hampton Free Library. The excellent bibliography may be the most valuable element of the book for historians.

ELLEN R. SAMUELS
East Hampton Star

Salvatore J. LaGumina. *New York at Mid-Century: The Impelliteri Years*. Westport, CT: Greenwood, 1993. Bibliography, index. Pp. xii, 256. \$46.00.

Salvatore J. LaGumina, professor of History and Political Science at Nassau Community College, provides an incisive view of New York City life in the World War II era against a backdrop of Italian American ethnicity. This political biography of Vincent Impelliteri assesses the profound urban changes of the nation's greatest city in the context of the major personalities that sought to shape those changes. As the nation shifted from war to peace, the need for housing, environmental control, public ethics, administrative reform, fiscal management, infrastructure development, ethnic tolerance, and labor relations stood out as important issues in "a city of headaches, a city of hope." Changes experienced in the city reshaped the metropolitan region and contributed to the emerging suburbs, especially on Long Island.

LaGumina's major figure in this transitional era is Vincent Impelliteri, an immigrant who became mayor of New York City in 1950. Born in Isnello, Sicily, in 1900, Impelliteri emigrated with his family the following year to New York City and then to Ansonia, Connecticut, where he spent his youth working at various jobs to contribute to his family's support while completing his high school education. Following service in the U.S. Navy during World War I, he relocated to New York City, earned a law degree at Fordham University, and became active in Democratic politics, primarily because of the party's attention to immigrants. He was appointed an assistant district attorney in Manhattan, and served as secretary to two state supreme court judges. William O'Dwyer, when running for mayor, chose Impelliteri for the position of city council president; both were elected in 1945, and again in 1949. As council president, Impelliteri gained experience that prepared him for the office of chief executive, to which he succeeded in 1950 upon O'Dwyer's resignation.

The city charter required a new election for the remaining three years of O'Dwyer's term. The author views 1950 as pivotal in ethnic history, the year in which three Italian American candidates, all born in Italy, opposed each other in the mayoral election. They were Ferdinand Pecora, a Democrat; Edward Corsi, a Republican; and Vincent Impelliteri, also a Democrat, who ran as an independent on the Experience party line. Moreover, it was the first time in the city's history that an independent (Impelliteri) defeated two major political party candidates.

All three of these candidates achieved success within their own ethnic

group and the wider community. Pecora, an Episcopalian born in Nicosia, Sicily, in 1882, became a New York City district attorney, and then the distinguished counsel to the United States Senate Committee on Banking and Currency in the 1930s. Appointed to fill a vacancy on the state supreme court, he was later elected to a full term. Corsi, born in Capistrano, Abruzzi, in 1896, combined careers in law, journalism, social work, and politics, and became director of Harlem House in the Italian American community of East Harlem. His idealism led him to reject Tammany Hall politics; President Herbert Hoover took note of his Republican party activity and appointed him U.S. Commissioner of Immigration. In 1934 he became New York City's director of home relief, and the following year was appointed second deputy commissioner of public welfare.

A constant theme of LaGumina's Italian American studies is the central role of ethnicity in American politics. His interest goes back four decades, when he produced a biography of New York Congressman Vito Marcantonio, and, as a founding member and former president of the American Italian Historical Association, edited *Ethnicity in American Political Life, the Italian American Experience*, the proceedings of the AIHA's first annual conference at Columbia University's Casa Italiana, 26 October 1968. The AIHA, the only organization that systematically and objectively records the history of Italian life in American society, has conducted twenty-four annual conferences and the same number of volumes of its proceedings, a series that represents the most authoritative research on the Italian American experience. Professor LaGumina continues to serve the AIHA as an elected member of its executive council.

New York at Mid-Century traces the rise of first-generation Italian Americans in "an entering phase of New York political life, wherein they exercised limited and peripheral influence (13)" to their "assertive stage (33)" after World War I, when they made inroads to public life. Their political involvement was minimal at first, despite a few successes by such individuals as Mississippi Governor Andrew Houston Longino, 1900-1904; New York Congressman Francis B. Spinola (from Long Island), 1887-1891; California Congressman Andrew Caminetti, 1891-1895; New York Congressman Fiorello H. LaGuardia, 1917-1920 and 1923-1933; and Mayor John Phinizy, of Augusta, Georgia, 1937. Nevertheless, LaGumina's study represents the archetypal story of one group's ethnic succession to positions of prominence, as that group is transformed by the Americanization process. Such progress was evident in the convergence of the Corsi-Impelliteri-Pecora mayoral election of 1950.

LaGumina's favorable treatment of Impelliteri's place in municipal history is based on extensive investigation of all the Impelliteri Papers. But, by being too close to the original sources, and because so little work has been done on Impelliteri's life, this too-favorable analysis may compromise the objectivity of the scholar. The decline of New York (and all big cities) since 1945 may be the result of the quality of political leadership, as well as the many structural changes in society. Others, however, such as Warren Moscow and Robert A.

Caro, who have criticized the Impelliteri administration, were either partisan or did not thoroughly mine the relevant archival material. LaGumina offers proof of Impelliteri's place in history as mayor by citing the following: establishment of the forty-hour week for city workers; reasonable success in dealing with organized labor's demands; outstanding appointments in city government; presiding over an honest government; and promoting the city's commerce.

Impelliteri, although warm and compassionate, lacked the sort of dynamic personality that characterized LaGuardia. LaGumina concludes:

Impelliteri deserves renown as an authentic representative of the Italian American milieu, an immigrant from southern Italy, the offspring of a large, humble, working class, Catholic family, who willingly grasped the opportunities to rise to unprecedented heights, which in the land of his birth would be far beyond his reach (242).

New York at Mid-Century, The Impelliteri Years, part of Greenwood Press's series of "Recent Titles in Contributions in American History," is essential reading for anyone interested in the Italian American experience and urban history.

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Eleanor F. Ferguson. *My Long Island*. Edited with a preface by Ann Nauman, Las Vegas, NV: Scrub Oak Press, 1993. Illustrations. Pp. xii, 209. \$24.00 (paper).

When Eleanor Fullerton was born in 1902, her father Hal was well-known around Long Island as the flamboyant publicist/special agent of the Long Island Rail Road, as well as for his advocacy of progress (most notably improved roads) and his photography. When she was just three years old, her parents opened the first of two experimental farms, whereby the railroad was to prove that the so-called poor and sandy soil of the Island could produce a great variety of food crops. Her story relates what it was like to grow up on a well-planned and publicized—as well as well-financed—farm early in this century. Despite the backing of the LIRR, it was still a great deal of hard work, mixed with social graces, as chores were postponed so that visiting dignitaries from all over the world could be shown the latest in agricultural technique and technology.

Although this reviewer, long both an acquaintance of Mrs. Ferguson and a student of her father's life and photography, was fascinated by the book and its detailed description of life on Long Island long ago, it must be said that it is not for the average reader. Certainly, it could have been cut somewhat, yet even the fluff does add to the feeling of what it was like to live during the period of great transition: horse-power to the automobile, flame illumination to electricity, isolation to assimilation. For the serious historian of American life in general and Fullerton's "Blessed Isle" in particular, *My Long Island* provides the insight

and depth of well-transcribed memoirs, told by a lady who not only lived it, but genuinely loved the times, the places, and the people of her experience.

There are some delightful insights into the thinking and the behavior of the simple folk and the great of the era, like the day that former President Theodore Roosevelt and LIRR President Ralph Peters came to inspect both of the LIRR farms, with the author's mother Edith driving the party through fifteen miles of scrub pine barrens on sandy trails, in 1910. The most memorable quotation of the day came from TR: "My God, Fullerton, does she know where she is going?" At lunch, Roosevelt was honored when Eleanor's older sister, Hope, brought out a cake with the initials TR inscribed in pink icing, obviously frustrating Peters on his own turf. A moment later, little Eleanor (eight years old), appeared with a second cake, topped with the letters RP in pink icing, completely invigorating the ruffled railroad president.

The three Fullerton children received much of their formal schooling at the farm from visiting teachers, including a female horticulturalist from Scotland, who, upon discovering a pile of newly delivered fertilizer from the railroad's stables, exclaimed with delight: "That is *beautiful* manure!" That reaction prompted Eleanor to write that the lady was "a real gardener." The book is full of little anecdotes like that, most of which relate to the author's irrepressible father. Those who have some knowledge of Hal Fullerton have long suspected that he was, indeed, a ham and corny at times, and Eleanor reinforces that image of the publicist that her father was.

The book is illustrated with reproductions of Fullerton's photographs, unfortunately reproduced on the same stock as the text, greatly compromising their quality. This and other shortcomings do not detract from a most delightful reading experience; one that only reinforces the notion that the Fullertons' "Blessed Isle" is long gone, sadly, never to be retrieved.

RON ZIEL

Railroad Historian

Elly Shodell. *Cross Currents: Baymen, Yachtsmen and Long Island Waters, 1830s—1990s*. Port Washington: Port Washington Public Library, 1993. Illustrations, maps. Pp. 72. \$12.95. Available from Publications Dept., Port Washington Public Library, One Library Drive, Port Washington, NY 11050 (add \$1.50 for postage and handling).

Elly Shodell's *Cross Currents: Baymen, Yachtsmen and Long Island Waters, 1830s-1990s* follows *It Looks Like Yesterday to Me: Port Washington's Afro-American Heritage*; *Particles of the Past: Sandmining on Long Island, 1870s-1980s*; and *In the Service: Workers on the Grand Estates of Long Island, 1890s-1940s*, in the Port Washington Public Library's first-rate Oral History Series. The waters surrounding Port Washington, a mini-port deep in the recesses of Manhasset Bay, became famous from the shellfish catches its baymen supplied to New York City, just fifteen miles distant, during the mid-nineteenth century. That fame has progressed through time and social change.

Now those same waters attract recreational boaters and fishermen, and have become, in the publisher's words, "a microcosm of the changes that time has brought to countless Long Island seaside communities."

Shodell faithfully follows her main title by integrating the cross currents of the waters with human ones in "the cultural intersections that have brought North Shore residents and visitors of differing ethnic groups, social classes, economic standings, educational backgrounds, and occupations in contact with each other" (7). The kaleidoscope of people who created Port Washington's history began with the Matinecock Indians well before any formal chronicling of the town. Dutch settlers from New Amsterdam (New York) and Englishmen from Connecticut and eastern Long Island came next. Before the nineteenth century ran its course, the local dialect reflected the nuances of Nova Scotian boating guides, Portuguese net fishermen, and Scandinavian boat captains and builders. By that time the waterfront trades included oystermen, eelers, scow captains, clambers, and shipwrights, all of whom eventually suffered replacement by the amateur yachtsmen and fun fishermen of today.

The author bases her narrative on the traveling exhibition of pictures, artifacts, and documents sponsored by the library. Copious illustrations, primarily with timeless photographs, indeed displace thousands of words and draw the reader through the pages of *Cross Currents* like a hungry fish following an elusive lure. First detailing the structure of the post-Revolutionary waterfront community, she proceeds through the early chapters to outline its metamorphosis over time. For those whose interest lies in societal history, the chapters "Changing Tides" and "New Bearings" trace the development of the North Shore estate community—a veritable millionaires' row of Hearsts, Belmonts, Astors, Guggenheims, and Whitneys. But the book never overlooks the diverse ethnic communities that assimilate to provide services to those who can afford them, and industry for those seeking employment.

The final culmination of the integration of rich and poor, dilettante and tradesman, servant and served, comes in the chapter "Members of the Club," "which takes the reader into the worlds of the Manhasset Bay Sportsmen's Club and local yacht clubs of today, where rituals and traditions of the bay are still celebrated" (11).

The Port Washington Library, by utilizing the skilled efforts of Ms. Shodell, has once again succeeded in producing both a delightful read and a meaningful historic monograph.

W. M. P. DUNNE

Long Island University—Southampton Campus

Janet Perin and Charles F. Howlett. *A Walk Through History: A Community Named Amityville*. Interlaken, NY: Heart of the Lakes Publishing, 1993. Illustrations, bibliography. Pp. 120.

A reader walking through Amityville is reminded of the changes that have been experienced by many of the towns throughout Long Island. There exists

a curious mixture of new buildings and old architecture, often rejuvenated by concerned citizens who have brought back the flavor of the old towns. The authors, Janet Perin and Charles F. Howlett, along with Amityville Memorial High School students, provide a feeling of great reverence for a town from another time. This book exposes fourth-grade scholars to primary source data, fashioning an interesting study of local history mandated in the New York State Social Studies Syllabus.

For the most part, the narrative is appropriate for the elementary level, although the goal of presenting "a complete political, economic, and social portrait of this community" (32) is not fully realized. The major events of American history, which parallel the period covered by the book, are not fully tied into the local scene. For example, the reader does not get a sense of who, in Amityville, served in the Civil War. Are there any monuments or plaques to those who died during this momentous event? While there are brief references to a Depression in the 1930s, there is scant information regarding life during that period. There also could be some information regarding small businesses and industry that grew in Amityville, such as the Evans Amityville Dairy, located behind Main Street for many years. At the end of the book, the section on student activities could be more extensive. What about bringing old Amityville residents to speak to an elementary school class, or a policeman, fireman, or businessman, to show students how they believe the community once worked or is working today? Why not have students use census reports, or have the teacher show them a page from a manuscript census so they can get a real feeling for who lived in Amityville, where they lived, and what they did for a living?

For the teacher's benefit, the introduction provides a quick overview of Amityville's history, including a section on the African American community of North Amityville. Yet, after reading this, the reader gets a sense that Amityville is simply a white/black community. What was the ethnic and religious make-up of its white inhabitants?

Although chapter 1 provides an adequate historical overview for the students, it could be improved in a number of ways. For example, the reader might wish to know where the Native Americans went after they moved away (36-37). It seems odd to have a picture depicting the nineteenth century when the text is discussing the colonial period.(39) The chapter leaves the reader hanging after World War II, when Amityville's population grew and shopping malls were built. How did the school system cope with massive population increases during the 1950s? Did Amityville experience a growth of suburban home development similar to Levittown's?

The remainder of this text, chapters 2-6, provide useful background material for this curriculum. Chapter 2 highlights the houses and the personalities who lived in them; chapter 3 discusses where Amityville got its name and why it was considered a "bay" village; chapter 4 takes the reader on a tour of landmarks. In chapter 5, which discusses places of worship, the authors acknowledge the village's ethnic diversity with a reference first to the

English and then to the later Italian and eastern European, including Jewish, people who settled in Amityville. Chapter 6 profiles the civil services that developed to serve the community, including police, fire, and public works.

The final chapter, focusing on the development of educational institutions, includes a copy of the "1863 School Report" (100-3), which this reviewer found to be unnecessary and confusing to students at this level, especially because the text does not directly refer to the report. Likewise, the "1930-1931 School Budget" is a difficult document to include in a text designed for elementary grade students. The simple explanation of taxes and the school budget in the text was sufficient, as is the handwritten school expense account, to meet the goals of the chapter.

In sum, the authors have put forth a great deal of effort and have produced a valuable tool for local history study at this grade level. Given that there is little available for our young people to help them grasp a sense of community, and that the authors worked closely with the young scholars at Amityville Memorial High School, they should be commended for their efforts.

WILLIAM INGUI
Northport High School

EXHIBITION REVIEW

"Nineteenth-Century Long Island Lithographs: A Mirror of the Middle Class." Society for the Preservation of Long Island Antiquities (SPLIA), Carolyn Oldenbusch, exhibit curator. The Gallery, Main Street, Cold Spring Harbor. Through June 1994, Tuesday—Sunday, 11 a.m.—4 p.m. Admission free, donations appreciated.

Presenting more than seventy works on paper and related objects, derived primarily from SPLIA's superb collection of nineteenth-century Long Island lithographs, and effectively supplemented with loans from such major cultural institutions as the Museum of the City of New York and the Brooklyn Historical Society, this exhibition traces the historical, cultural, and social significance of the lithograph in nineteenth-century New York and Long Island. Invented at the end of the eighteenth century by Alois Senefelder, of Bavaria, lithography is a printmaking process that relies upon the resistance of oil to water. Traditionally, the process involves using a grease pencil or crayon to draw upon a block of limestone. The stone is then wetted, coated with an oily ink which adheres to the greasy design but is repelled by the wet areas. Finally, the print is "pulled" from the stone onto paper, resulting in a fresh, almost hand-drawn rendering.

"Mirror of the Middle Class" begins with defining lithography and establishing its historical significance in the popular culture of nineteenth-century Long Island. A lithography press and limestone block are displayed near the beginning of the exhibition, as are other tools used in this process,

adding an important practical and instructive dimension to the physical components involved in creating a lithograph. This introduction continues with a small selection of lithographs, addressing several topics which begin to illustrate the permissiveness of this printmaking technique in the pictorial history of mid-to-late nineteenth century Long Island.

The significance of lithography during this period is then more closely examined, as the viewer proceeds through several major themes that employed the technique as an illustrative device. These themes are subdivided into smaller, more specific categories which more precisely explain the various ways in which the lithograph was used as an affordable, articulate, and aesthetically pleasing means to disseminate information on a variety of topics.

"The Leisure Revolution" and "The Vanishing Pastoral Scene" are two of the major themes in the exhibition that are examined through a number of handsomely detailed lithographs. "The Leisure Revolution" includes lithographs that address the significance of the proximity of the sea and its by-products on nineteenth-century Long Island: steamboats, the Long Island Railroad, resort hotels for affluent New Yorkers, the sport of yachting among this privileged class, real estate promotional devices, fishing, and hunting. One lithograph pronounces Long Island as "The Pleasure Ground of New York [with a] healthful and delightful climate [and] frequent and fast trains to all points."

Among the numerous commercial firms that sold these images of popular culture, Currier and Ives became the most successful. In the category of hunting and fishing, alone, they published more than one hundred prints, including the well-known illustration of Senator Daniel Webster catching a prized eighteen-pound trout on the Connetquot River. "The Vanishing Pastoral Scene" presents a number of romanticized images of "the good life" on the Island, including *View of Long Island*, said to be a rare print from "the Long Island series" drawn by the acclaimed Currier and Ives' artist Frances Flora Palmer. Signing her prints "F. F. Palmer," "Fanny" may well have been the first woman in the country to earn a living as an artist. Some other prints in this category include: *Long Island Sound*, *Toll-Gate*, *Jamaica*, and *Old Saw Mill, Long Island*. Further categories address the importance of the horse and the sport of riding, the Civil War, and economic growth and resultant modernization.

Finally, a small yet respectable portion of the exhibition addresses the importance of lithography as a means to make paintings by well-known painters more accessible to the general public. Generally, American artists did not view lithography in the same light as did their European counterparts, considering it as little more than a reproductive method rather than as a means of artistic expression in its own right. A notable exception was the internationally acclaimed artist, William Sidney Mount (1807-1868). Mount formed a lucrative alliance with the French firm of Goupil and Company, around 1835, that resulted in the production of lithographs made after many of his paintings, and greatly assisted in expanding his visibility both in the United States and throughout Europe. This section of the exhibition, entitled

“From Paint to Stone,” includes several prints based on well-known paintings by Mount, including *Farmers Noonning* (1836) and *The Bone Player* (1856).

While the viewer’s path through the wealth of images and materials included in the exhibition is a bit confusing, we are ultimately given a very instructive and in-depth look into the various components that formed the basis of Long Island history and culture, through a thoughtful selection of stunning images that have been executed in the medium of lithography. “Nineteenth-Century Long Island Lithographs: A Mirror of the Middle Class” is an important exhibition that should not be missed.

ELAINE COBOS

Curator of the Art Collection, The Museums at Stony Brook

Book Notes

Myron H. Luke. *Vignettes of Hempstead Town, 1643-1800*. Hempstead: Long Island Studies Institute, 1993. Illustrations, bibliography. Pp. vi, 36. \$5 (paper). Available from L.I. Studies Institute, 619 Fulton Ave., Hempstead, NY 11550-7545, and the Weathervane Shop, Suffolk County Historical Society, 300 W. Main St., Riverhead, NY 11901.

This brief but informative collection presents revised versions of fifteen articles written by Myron H. Luke for the *Hofstra Magazine* between 1958 and 1963. Subjects include the Indians of Hempstead and their relations with the white pioneers; early settlement patterns; the Flushing Remonstrance of 1657; Daniel Denton’s 1670 description of Long Island; the Hempstead Plain; the colonial period; the Revolution; the British occupation after the Battle of Long Island; the tension between patriots and loyalists that resulted in North Hempstead’s secession from its parent town; and a concluding summary of Hempstead in 1800, when “Long Island had for the most part resumed the peaceful agricultural existence reminiscent of the days before the war.”(28)

To be reviewed in our next issue:

Stephen B. Elias. *Alexander T. Stewart: The Forgotten Merchant Prince*. Westport, CT: Praeger Publishers, 1992. The biography of A. T. Stewart, the nineteenth-century “merchant prince” and founder of Garden City.

Joshua Stoff. *Picture History of World War II American Aircraft Production*. New York: Dover Publications, 1993. Illustrations, index. Pp. 179. \$13.95 (paper).

Richard C. Malley. *In Their Hours of Ocean Leisure: Scrimshaw in the Cold Spring Harbor Whaling Museum*. Cold Spring Harbor: Whaling Museum Society, 1993. Illustrations, notes, bibliography, index. Pp. xiv, 79. \$19.50 (paper).

Communications

Dear Editor:

I have been trying to preserve and interpret the invaluable treasure that constitutes the old records of the Queens County Supreme Court between 1760 and 1820, now in the basement of the courthouse at Sutphin Boulevard...Enclosed are some of the articles I have written over the years in the *Queens Bar Bulletin*, using these records and other sources. As an amateur historian, I have come to the conclusion that our records are too important to be left only to me to read. A team of professional historians is called for.

Regrettably, many of these records are rotting. It is questionable whether the dank basement of 88-11 Sutphin Boulevard, Jamaica, is an appropriate place to store them. They certainly should be microfilmed for future generations. The story they can tell, when analyzed by perceptive legal historians, would add much to the understanding of Long Island and American history. The perspective gained on economic and social development would be enormous, on a wide range of subjects including Native Americans, seafaring, the municipalities of Long Island City, Flushing, and Jamaica, the Long Island Railroad, and the growth of technology from simple farm implements to complicated street railways.

Could a team of historians be assembled to read these records and write this story? Could a National Endowment for the Humanities grant be obtained for such a purpose?...Over the years I have obtained the encouragement of the Queens County Clerk's Office, the Queens County Bar Association, and the Queens Historical Society for such a project. However, I am personally consumed with making a living by drafting the Queens County Supreme Court records of the current time. As such, the number of hours I can spend with the old records is limited.

I hope I can excite you about such a project. I believe it would be an enormous contribution to our understanding of the development of our country.

Paul E. Kerson, Esq.
Forest Hills

Dear Editor:

I find that the *LIHJ* is the only publication that recognizes Kings and Queens Counties as parts of Long Island. Thank you.

Ronald V. Bourque
Brooklyn

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We welcome comments, proposals for articles or book reviews, or offers to help in whatever phase of our work you select.

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