

Stewardship through Historical and Natural Interpretation:

Providing Memory and Meaning
in New Jersey's Storied Places.



Washington Crossing The Delaware by Lloyd Garrison.
Courtesy of Lloyd Garrison and H. Kels Swan, Washington Crossing State Park.

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Executive Summary

New Jersey's public places are truly our common ground. Our historic memorials and natural wonders embody a certain greatness of spirit, defining and expressing the State's unique character. These public spaces project the image we have of ourselves to others. Beginning in 1903, stewardship of the brightest facets of this magnificent legacy has accrued to the New Jersey Division of Parks and Forestry. Today, the Division administers 358,441 acres of public land, embracing 57 Historic Sites, 38 State Parks, 11 State Forests, 3 State Recreation Areas, and 42 Natural Areas.

This proud inventory cannot care for itself and cannot speak for itself. Meaningful places must be perpetually understood and experienced, their appreciation renewed or their meanings lost.

As stewards of the land, of its natural diversity and its splendor, of its scenic wonders and historic places, the Division of Parks and Forestry offers an inclusive interpretive program, providing opportunities for people to connect with the historic and natural resources in its care, using heritage interpretation to create meaningful, memorable experiences for the broadest possible audience. New Jersey is a storied land, whose great variety of resources presents an interpretive challenge.

Interpretation is resource-based and experientially connective to core values and emotions. For this reason, heritage interpretation prepares the foundation of true stewardship. A recent study on projected visitor trends in the northeastern United States notes that the programmatic and experiential aspects of park visitation "will become increasingly important in visitor satisfaction and the creation of memorable experiences will become the most important variable in determining the level of visitor satisfaction." To meet this challenge, interpretation will need to address an aging, better educated, and more diverse audience.

Since the tragic events of September 11, 2001, people are turning to history for answers, consolation, comfort, and assurance. Many are visiting historic sites and museums to reassure themselves of American values and to retrace the historical paths to American freedom. Heritage interpretation can remind the public that past generations have nobly overcome the challenge and crisis of their time and that we can do the same.

Heritage interpretation strives to enlighten people as to their interesting and significant surroundings. Just as every picture tells a story, so does every setting or place. But most settings hold a layering of contexts, each context shaping a chapter in a continuing story.

Every effective interpretive program goes beyond providing information to reveal meanings associated with the resource. It addresses the unique significance of the resource and the varying levels and fields of visitors' interest and experience. To do so, heritage interpretation must capture meanings in a shared learning process that combines an open-minded, insightful sense of discovery with an imparting enthusiasm. Interpreters combine a specialized subject knowledge with a sense of their audience, enabling them to transform curious encounters with tangible resources into meaningful experiences of lasting value. An accurate and well-told story is key to building resource appreciation and a sense of stewardship.

Skillfully employing the art of story-telling, effective interpreters communicate through a variety of media and techniques, working to focus and enrich visitors' perceptual experiences. Through simple narrative formats, interpretive themes contextualize the resource at hand, plotting stories that help visitors experience a broader understanding of history or nature. Visitor-experience goals set forth a menu of opportunities for our audience to connect intellectually and emotionally with storied places in both a meaningful and acceptable way.

Interpretive Zones help to link sites thematically on the basis of resource communities and their development. Each zone hosts a variety of interpretive themes. For interpretive purposes, New Jersey is subdivided into four Interpretive Zones, each containing two geophysical subunits, namely: (I) the Minisink Country and the Blue Mountains; (II) the Kittatinny Valley and the Highlands; (III) the Sandstone Piedmont and Inner Coastal Plain; and (IV) the Outer Coastal Plain and Sandy Forelands.

An interpretive plan examines what stories have been told and what stories should be told. It also chooses *where* and *how best* to tell these stories. For this reason, interpretive planning is an integrated, comprehensive process that examines each and every option in the overall context of goals and themes. All interpretive messages, regardless of the method of delivery, must (1) fit the resource's significance statement and interpretive themes; (2) target the intended audience; and (3) address visitor-experience and resource-management goals. The overall objective in planning is to become better decision-makers. For this reason, the planning process is goal-driven and not issue-driven.

Success depends upon correctly evaluating audience receptivity and then matching the right means of communication to the right moment and place. Interpretive planning and performance must address all five phases of the visitor experience: anticipation, travel, participation, travel and recall.

Face-to-face interaction remains the most flexible and effective form of interpretation. Personal services, in the form of talks or guided tours, can adapt to different audiences in a way that other interpretive media cannot. Exhibits, audiovisual programs, wayside exhibits, publications, digital media, models, reproduction period clothing and utensils, and historic furnishings, also provide opportunities for visitors to connect with the meanings inherent in the resource.

The Division of Parks and Forestry is the largest administrator of historic house museums and restored museum villages in the State of New Jersey and maintains one of the largest groups of state historic sites in the country. The Division has also acquired an extensive collection of historic artifacts with which to furnish and interpret them. These collections vary from the everyday implements and furnishings of past lives to the rare and unique expressions of our finest hearts and minds.

The 57 State Historic Sites, the cultural landscapes surrounding them, and the collections of historic objects displayed within them, are all powerful, but underutilized, teaching tools and educational resources. Efforts should be made to work with educators and to integrate our historical and natural interpretive programs into the regular curriculum of schools in the region. The State Historic Sites should be used as laboratories and field schools for teaching history.

The New Jersey Environmental Education Commission's *Plan of Action* recommends that the NJ DEP provide teacher enrichment opportunities and technical assistance, assisting with the development of classroom materials and resources, and providing projects, contests, speakers, events, internships, apprenticeships, awards and grants. The Department is also to provide historical and natural interpretation, natural-resource education, and recreational opportunities.

The State Park Service employs nearly 50 full-time interpreters and 60 seasonal interpreters (2001). There are two resource interpretive specialists working in the Division, outside of the State Park Service, and these are both assigned to the Forest Resource Education Center in Jackson, NJ. The State Park Service administers interpretive centers, facilities, or trails, at 23 locations and conducts a variety of nature programs at 24 parks, forests, or recreational areas. Several independent environmental education centers, staffed and administered by competent educational institutions or environmental associations, operate on or adjacent to our State Parks and Forests, including the NJ School of Conservation, which is the oldest and largest university-operated environmental education field center in the nation, and the Hackensack Meadowlands Environmental Center. The New Jersey Audubon Society maintains the Weis Ecology Center, adjacent to Norvin Green State Forest, and the Rancocas Nature Center on Rancocas Road, Mount Holly.

New Jersey Project Learning Tree is an activity-oriented, interactive curriculum of fun learning that enables teachers and students to gain an awareness and knowledge of their natural environment and their effect upon it. The New Jersey Forest Stewardship Program provides technical advice to assist private woodland owners, wildlife enthusiasts, watershed associations, hunt clubs, scouting organizations, private schools and other private organizations and individuals, in understanding the values and practices of scientific forest management. This program is designed to help protect and improve soils and water, enhance wildlife habitat, create recreational opportunities, maintain aesthetics, protect endangered species, and improve timber and wood product potential, while ensuring the forest's capacity for self-renewal.

Our historic and natural heritage enriches us by its mere presence; the intricate web of life always evokes wonder and demands explanation. Interpretation makes the bridge between curiosity and understanding, between observation and insight. *Above all else, we always honor the resource that we have for what it is, honestly and openly.*

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**O earth that hast no voice, confide to me a voice ...
A song to narrate thee.**

Walt Whitman, THE RETURN OF THE HEROES



Introduction

Interpretation centers upon an age-old dilemma: How can I explain? Most dictionaries define the word *interpret* as “to explain the meaning of, to conceive the significance of, or to present or conceptualize the meaning of.” Interpreters elucidate significance and meaning in storied places.

Various types of explainers fill many useful roles in society — parents and teachers perhaps being the most honored — but heritage interpreters always and only inhabit the “teachable moment,” providing place-based education. Heritage interpretation offers the immediacy of the resource and the potential for its lasting impression upon us, through the imprint of meaningful, memorable experiences.

The art of interpretation differs from academic teaching in that it seeks to shape the intellectual content of a direct encounter. Interpreters work to illuminate whatever is the immediate object of the beholder’s attention and curiosity. Since every audience brings its own mixture of anticipations, every interpreter must work intuitively to win their understanding and appreciation. Through the power of words, gestures, sets, symbols, and rapport, interpreters are performers who must know their script and their stage, but never appear scripted or staged. Always honoring the resource and their profession, conscientious interpreters strive to be honest, accurate, and politely persuasive. Those who are truly confident in their knowledge and abilities do not present an air of superiority and, oppositely, are never merely ingratiating.

Heritage interpretation always strives to enlighten people

as to their interesting and significant surroundings. Combining a specialized knowledge of their subject with a sense of their audience, interpreters transform curious encounters with tangible resources into meaningful and satisfying experiences. For this reason, interpretation never merely describes or recites; it does not inventory; it reveals. It does not simply ask us to *look at* something of interest, it asks us to *look into* it. Since good interpretation sustains curiosity, it is an open-ended process.

Heritage interpretation is the instructive act of building context around what is sensibly apparent, exposing, in a sense, the architecture of meaning. As naturalist John Muir once said: “When we try to pick out anything by itself, we find it hitched to everything else in the universe.”

Context is any setting or set of circumstances that lends interest or meaning to an individual, object, act or event. As intellectual reconstructions, “contexts” continually evolve as better models are better able to explain what is sensibly apparent. For example, consider a glacial “erratic” — before scientists understood that glaciers had once covered much of the northern hemisphere, gravel hills and scattered boulders were called “drift” on the belief that they had been deposited by the waters of Noah’s Deluge.

Heritage interpretation fundamentally employs the skills of story-telling. Every good story has a recognizable beginning and end. In between, conflicting elements build tension, color and interest. The resolution of some dilemma, intrigue, or confrontation offers relief and release, hopefully by way of a satisfying insight.

Just as every picture tells a story, so does every setting or place. The protagonists may not be human or even animate; potholes in obdurate rock are dramatic proof of a long and long-ago glacial winter and the abrasive torrents of meltwater that marked its thaw. Whether in Presidential birthplaces, on remnant battlefields, or on wilderness trails, interpreters tell the eye-ful stories of places.

Interpretation communicates through a variety of media and techniques, working to focus and deepen visitors' perceptual experiences. An interpreter may choose to blend into the interpretive setting, re-creating, for example, the dress, language, skills and activities of a past environment. Or an interpreter may choose to join his or her audience as investigators, exploring and conceptualizing the significance of interpretive clues. Interpreters may post images and text by the wayside, offering a real-time glimpse of change to awaken a passer-by's sense of place. Some stories live by word of mouth; others are best told on screens, some in books, some in brochures, some by the camp fire, and still others in exhibit cases. But interpretation is always resource-driven; its themes contextualize and explain the resource at hand.

Interpretation offers insights and does not merely impose conclusions or advocate causes. It builds from a knowledgeable sense of resource significance and speaks directly to the meaning and lasting value of the resource. It avoids preconceptions in shaping its message and leaves judgments to the visitor. Interpretation tries to capture the "big picture," yet condenses it into an accessible and digestible format through a thematic approach. Lastly, interpretation only succeeds when it engages the visitor's level of experience and interest.

Most settings hold a layering of contexts; each context shaping a chapter in a continuing story. Planning interpretation for a particular setting first considers what we might call the *prima facie* context — that constellation of facts and circumstances which interact to form our present perception of a particular place. In most cases, the public purpose for which a resource is acquired and managed determines the *prima facie* context. But we recognize this as only the immediate stage in a succession of contexts, which altogether arrange an interpretative storyboard. But the *prima facie* context is the sole passageway to all other contexts, larger or smaller, past or future.

Certain relative constants thread changing contexts into a continuum, defining the natural and cultural possibilities inherent to a given place. Such constants relate one



Washington Crossing State Park, circa 1930.
(Top) The New Jersey Shore of the Delaware River.
(Center) The Main Entrance.
(Bottom) Between Ferry House and Garden.

context to another across space and time and invite implicit comparisons. These constants define the underlying resource base and help to arrange a sequence of actions or occurrences into meaningful patterns.

What are these constants? Consider one example as an illustration: a wide valley runs at the eastern foot of Sourland Mountain and passes the Delaware River between Titusville and Trenton, where the river's trench is shallow and consequently, the banks of the Delaware in this neighborhood, "although steep, are never vertical, as in the case where the bluffs are higher." A ferry operated at this natural advantage and it was here that General Washington crossed his troops and artillery on Christmas night, 1776, for a surprise attack against Hessian regiments quartered in Trenton.

Thus the underlying resource base fosters a pattern of human actions occurring on the site, including (in this particular case) Washington's crossing of the Delaware. The natural and cultural possibilities inherent to this place have been variously realized across time in successive contexts, as evidenced by survival of a ferryman's dwelling and a large stone barn, a primitive stretch of road, the canal feeder, railroad tracks, and a modern highway. The forest has ebbed and flowed across this landscape in response to agricultural pursuits, changing demands for fuel and wood products, new or competing modes of transportation and supply, and other tidal forces of the American economy.

In this case, the *prima facie* context is rooted in the establishment of a Memorial Park, beginning in 1912, as developed by a substantial Legislative appropriation in 1923, expended to broaden and improve its facilities in time for the American Sesquicentennial of 1926. Consequently, the Daughters of the American Revolution established a garden in the rear of the Johnson Ferry House and marked the landing site on the river. The Patriotic Order Sons of America placed a fountain in the garden to honor John Honeyman, of Griggstown, the spy who aided Washington before the battle of Trenton. The Sons of the American Revolution contributed a hand-pump for one of the public wells, while the Sons of the Revolution installed a flagpole. The American Tree Association planted thirteen American elms to honor the original States. Picnic facilities were established in Sullivan Grove, Washington Grove and Greene Grove. The State Forest Nursery, adjoining the park, planted evergreen saplings over half of the 293 acres comprising the park. Behind the Ferry House, a section of Continental Lane, the original road taken by Washington's troops, was preserved. The historic Ferry

House was restored and furnished "as a museum and shrine open to the public."

The preservation or reconstruction of an eighteenth-century agrarian landscape was only attempted on a limited (and largely nostalgic) basis. Though the recreational appeal was subordinated to the memorial purpose, park development encompassed picnic groves, a ball field, and quoit courts. Thus, not only did the historic events of December 1776 play a part in shaping this "memorial park," but also, the way these events were perceived and honored in the first quarter of the twentieth-century.

Thus the underlying resource base unfolds latent natural and cultural possibilities (*niches*), which are expressed in patterns of biotic communities and human activities through successional contexts, each leaving its imprint or story on the land. Reading these contextual imprints or stories back to the underlying resource-base fills out the basic interpretive format: highlighting resource significance, underlining the purpose and mandate for public stewardship, defining interpretive themes, and setting a basic menu of potential visitor experiences. If properly understood and demonstrated, this chain of meaning links the resource to its audience — interpretation is clearly resource-based and resource-driven. A thematic bundling of relevant information helps the visitor to relate any particular aspect of a place or event to a

broader understanding of history or nature.

We always honor the resource that we have for what it is, honestly and openly. To do so, interpretation, in some sense, needs to be "transparent,"

"There are living pasts and dead pasts. Some pasts are the liveliest instigators of the present and the best springboards into the future."

Le Corbusier, "When the Cathedrals Were White."

not intruding too loudly or noticeably between the resource and its audience. This does not suggest that interpretation should be dull, routine or inaudible — on the contrary, a welcoming enthusiasm is contagious and, when focussed, greatly honors not only the resource but also the audience. But interpretation sheds light rather than glowing pointlessly and merely drawing attention to the medium or presenter. It gives voice to the resource. As Walt Whitman implored in *The Return of the Heroes*: "O earth that hast no voice, confide to me a voice ... A song to narrate thee."

Nothing illuminates the past like the present. In interpretation (as in life), experience is our greatest guide. We should acknowledge that present concerns continually

reshape our interest in history and in nature. In particular, we search history for insights into the human condition that may prove useful in some present or future context. Without a proven method for predicting future outcomes, we can only look to the past for a sense of how humans have reacted under similar circumstances.

We seek in nature an appreciation of the complex interdependencies and diversity of life and the elemental forces that sustain it. An attraction to the Great Outdoors, where nature prevails, has grown in response to the time devoted to indoor occupations, where mechanical time is kept and where productivity measures value. We seek open spaces because of the proliferation of walls and artificial ecologies that cubicle the human spirit. Unadorned nature ages and renews with timeless regularity and indifference. Nature decompresses, inspires and humbles its admirers. It welcomes solitude even as it teaches community.

In a very real sense, remnant agrarian landscapes attract us with their balance of nature and humanity — the so-called “middle landscape.” Even antique interior spaces appear as thin and brief refuges from the elements, their components hand-worked from the earth and forest. Their attraction to visitors replicates that of primitive nature. We imagine in their ghostly occupants a natural honesty, a core of fundamental, uncompromised virtues. For this reason, we enjoy those flaws and eccentricities that humanize an otherwise idealized heroic past.

Myth, legend and even outdated interpretive lore has its place (more for what it reveals about its creators and believers than as a literal record), but accurate and sufficient information premises all interpretation. A system of research and professional development hones conceptualization, performance and content. Peer review and visitor response build confidence and ensure accuracy and balance.

Heritage interpretation covers our interwoven cultural and natural heritage. Culture can basically be described as a set of adaptations which a particular group of people make over time to a particular environment and its

resource-based opportunities. The relationship is subtle and reciprocal: people shape the land even as the land shapes its inhabitants. Historical interpretation opens retrospective environments to our mind’s eye, deciphering their imprint upon the shape of our lives. Natural interpretation guides us to an appreciation of living earthscapes as interactive systems, entwining geologic terrains, weather and water cycles, and biotic opportunism. This allows us to see the forest for the trees, tracing the wonderfully opportunistic circuitry of life moving through every niche and season.

Inevitably historical and naturalist interpretations arise from a common resource base and travel the same road, though sometimes stopping at different waysides. A significant difference involves the agents and objects of change which supply narrative action — natural forces and powerful instincts interact impersonally, whereas

humans, interacting individually or collectively, can be and often are, the willful historical agents of change.

New Jersey compresses every natural feature of the Atlantic slope from the blue-hazed Appalachian mountains to littoral sands, all within a relatively short distance. It boasts many scenic works of nature, but few scenes, other than the Delaware Water Gap or sandy miles of gleaming surf, that occupy grand vistas with monumental splendor. An ever-changing terrain, declining seaward with remarkably diverse picturesque aspects, fills many canvasses with what Thoreau might call “beauty on a humble scale.” There is truly an aesthetic

of proportion, for we seldom lose sight of ourselves in the landscape, even amidst recovered wilderness, feeling overwhelmed or lost against an infinite horizon. The Jersey countryside has a beckoning beauty and serene complacency; it offers a quiet companionship with nature, an intimate sense of belonging, and an abiding sense of place.

The broad stream of history certainly flows in our midst. Speaking of New Jersey in *An Historical, Geographical, Commercial, And Philosophical View Of The United States Of America*, published in 1796, the English historian

“New Jersey’s personality completely eludes attempts to define it in a few words, for the hallmark of New Jersey is variety — whether the view be from the standpoint of topography, history, economics, industry, politics, or people. ... New Jersey, therefore, is difficult to know and to assess. She is crowded cities, intense industrial production, astonishing research. She is also broad farmland and open woodland and contrasting seashore. New Jersey is a state with a prideful Revolutionary War heritage, a state which has also been astride of all great American movements since that time — movements in industry, transportation, invention, immigration, and politics.”

John T. Cunningham,
The New Jersey Almanac, 1964-1965

William Winterbotham concluded that: "This State was the seat of the war for several years during the contest between England and America. Her proportionate loss of men and property was greater than any other of the thirteen colonies. While Washington was retreating through New Jersey, almost forsaken by all others, her militia were at all times obedient to his orders and, for a considerable length of time, composed the strength of his army, and the military achievements performed by New Jersey soldiers gives this State one of the first ranks among her sister states in a military way and entitles her to share praise that bears no proportion to her size."

And the story does not end there. Out of all proportion to her size, New Jersey also figures prominently in the political, military, cultural, commercial, industrial and technological development of the United States. But many people have come to believe that History is so remote in time and place that it has lost its power to inform our future. That is why it is now more important than ever to rediscover our Past in those places where it yet has the lively power to quicken the intellect and to enthuse the spirit.

Our historic and natural heritage enriches us by its mere presence; the intricate web of life always evokes wonder and demands explanation.

Goals for Interpretation

In order to provide the kind of broad-based, but well researched interpretive programs necessary to inform and educate the visiting public about the historic and natural resources within our parks, forests, and historic sites, the following goals are recognized:

- Recruit competent interpreters, possessed of the necessary communications skills, background knowledge and enthusiasm for their work. Train and equip interpreters to do a professional job.
- Meet the highest standards of scholarly research and develop accurate information sufficient for the fair, open-minded and inspired interpretation of our historic and natural resources. Speak to meanings inherent in the resource and not merely to trivia that is entertaining or agreeable to popular preconceptions.
- Employ a variety of interpretive strategies, methods and media to reach the broadest possible audience.

- Address varying levels and fields of visitors' interest and experience.
- Promote respect for the resource. Impart an appreciation of its significance and the value of its preservation. Seek to inform and not to preach.
- Acknowledge disagreements and different points of view as helpful to the process of understanding.

These goals support the Stewardship Ethic. From the public's perspective, they provide a platform of interpretive inclusiveness.

Mission Statement

The NJ Department of Environmental Protection's Division of Parks and Forestry is dedicated to the excellent stewardship of the state's rich and diverse historic, cultural, recreational and natural resources for the benefit of present and future generations. We are committed to establishing a creative environment that attracts and retains dedicated employees and promotes dynamic partnerships to effectively manage the resources entrusted to us.

Administrative Background

by Kevin Wright

State Historic Sites

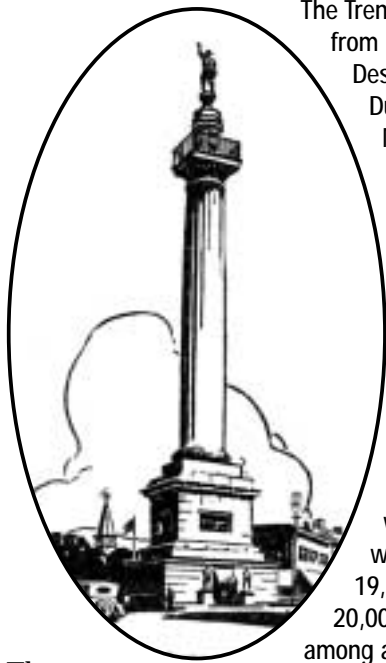
The State of New Jersey first officially marked its historic heritage by placing a granite monument at the reburial site of John Hart, a signer of the Declaration of Independence, beside the Old School Baptist Meeting House at Hopewell in 1865. Between 1873 and 1921, the State authorized the placement of sixteen cemetery markers, battlefield tablets and monuments.

In 1874, the Legislature incorporated the Washington Association of New Jersey and appropriated \$5,000 annually towards the maintenance of Washington's Headquarters in Morristown. This historic site became the first National Historical Park in the United States when the State of New Jersey conveyed its title and interest therein to the Federal government on July 4, 1933.

Governor Joel Parker, of Freehold, suggested erection of a commemorative monument at ceremonies marking

the 99th anniversary of the Battle of Monmouth on June 28, 1877. The Monmouth Battle Monument Association was formed in October of that same year. Daniel S. Schanck's heirs donated Monument Park, comprising 3-¹/₄ acres on a knoll near Freehold's main thoroughfare. Governor George B. McClellan laid the cornerstone on the battle's 100th anniversary.

According to the design of architects Emelin T. Littell and Douglas Smythe, the Monmouth Battle Monument is made of polished New England granite, on a triangular base, with cannon at each angle. A large circular step above the base displays twenty medallion portraits of the prominent officers who participated in the battle. Above this step, the drum-shaped base of the shaft bears five gunmetal bronze bas-relief panels, each 5 feet high and 6 feet long, designed by Maurice J. Power, of the New York National Art Foundry, and executed by sculptor James E. Kelly. These illustrate incidents from the battle. The column consists of three sections, joined with rings of bay leaves, crowned with a Composite capital and a statue of the Goddess of Liberty. Governor Leon Abbett unveiled the monument on November 13, 1884, before 20,000 people.



The Trenton Battle Monument from *Know Your State*, 1925. Designed by architect John H. Duncan, the Trenton Battle Monument consists of a hollow Roman Doric column, fashioned of white Maine granite, with an observatory in the cap, crowned by a bronze statue of General Washington, sculpted by William Rudolf O'Donovan. Overall, the monument rises 150 feet above street level and weighs 4 million pounds. It was dedicated on October 19, 1893, before a crowd of 20,000. Eight governors were among a throng of dignitaries.

The Trenton Battle Monument Association was formed on May 7, 1884. A large brick carriage factory was demolished to make way for the monument, which marks the spot where, on Christmas Day, 1776, Captain Alexander Hamilton's battery of New York Artillery held a commanding position at the head of King and Queen Streets, proving a decisive factor in the battle that marked a turning-point in the War for American

Independence. Ground was broken on September 20, 1891, and the cornerstone laid on December 26, 1891, the 115th anniversary of the battle. It was dedicated October 19, 1893. Governor George T. Werts made the closing address. Major-General W. J. Sewell commanded a military parade of 5,000 soldiers for the occasion.

The State of New Jersey began acquiring and operating historic sites at the initiative of Governor Franklin Murphy, a member of several patriotic societies, including the Sons of the American Revolution. On April 2, 1902, the Legislature empowered a State commission to purchase and maintain the Old Indian King Tavern at Haddonfield. The provincial Assembly met here in 1777 and inserted the word "state" for "colony" in all public documents. The State of New Jersey took possession of the old tavern on June 15, 1903. Renovations were made between 1908 and 1910.



The Indian King Tavern in Haddonfield, 1912

State Forests

In 1894, the Legislature asked the State Geological Survey to ascertain the extent, quality and benefits of forested land in New Jersey. Gifford Pinchot, chief of the Division of Forestry, United States Department of Agriculture, was appointed botanist to conduct the survey. His final report, entitled "Forest Fires and Wood Production in Southern New Jersey," was published in 1898.

Professor Arthur Hollick, of Columbia University, conducted important studies on the distribution of tree species in New Jersey and their relation to geological formations and soil conditions. After surveying the northern part of the State, he continued his explorations further south, between the coast line and the Delaware River. Reporting his preliminary results in November 1898, he divided New Jersey theoretically into three

zones of vegetation: the northern or deciduous, the southern or coniferous, and an intermediate one, which he called the "tension zone," because the two floras meet or overlap there, causing a constant state of tension in the struggle for advantage.

In particular, Professor Hollick noted that *Pinus rigida* Mill, the common Pitch pine, existed over hundreds of square miles in Burlington and Ocean Counties, often to the exclusion of all other trees. Though it is the prevailing species throughout the Pine Barrens, it otherwise occurred as isolated groves or individual specimens which, if destroyed, were generally replaced with deciduous growth. The groves and individual specimens growing further north were found to be, as a rule, larger and more vigorous than the average of the trees in the Barrens, not because the soil was more favorable to them, but because of its being less favorable for deciduous trees. Professor Hollick concluded that the pines dominated wherever they were free from competition, but that the stronger and more aggressive deciduous trees were able to dominate on soils where pines might otherwise prosper.

As recognized by Professor Hollick, New Jersey's forest broadly comprises two distinct regions, with an intermediate transition zone: a hardwood region of about 750,000 acres lying north and west of a line running from Seabright to Glassboro to Bridgeton; and a pine region of about 1,250,000 acres lying south and east of the same line. The hardwood region contains mainly deciduous species such as oak, maple, hickory, beech, tulip poplar, ash, birch, gum, and formerly elm and chestnut, with small quantities of the conifers — white and pitch pine, red cedar and hemlock. The South Jersey pine region contains principally pitch pine, short-leaf pine and white cedar, with considerable oak on the better soils. This oak growth became scrubby where it was frequently burned. The *Report of the State Forester* for 1921 estimated that pine occupied 50% of this area; oak and hardwoods, 20%; cedar swamp, 4%, and brush (recently cutover or severely burned land) 26%.

Maximum deforestation was reached in 1850-1860. As late as 1921, it was estimated that nearly 70% of New Jersey's whole forest area (1,400,000 acres) had been recently cut over, or so severely burned that the tree growth was too small to be considered merchantable. Of this area, 400,000 acres, three-fourths of which was in South Jersey, contained few trees large enough for cordwood. Since New Jersey was not a lumber-producing State, forest protection was perceived as essential to the

quality and conservation of the State's water supply and for game preserves. Accordingly, State-owned forest reservations were recommended to protect the "great gathering-grounds for the unfailing supply of pure water...."

The Geological Commission proposed in May 1901 a great scheme to preserve and protect a vast forest range in New Jersey through a system of State Forest Reservations, similar to those in Germany. The Commissioners were: Governor Voorhees, Colonel Roebing, Henry S. Little, ex-Senator Edward C. Stokes, Lebbeus R. Ward, and other prominent citizens. Dr. John Gifford, Professor of Forestry at Cornell University, was a consultant.

In response to such pioneering surveys, the Legislature appropriated funds in 1901 to continue the forestry investigation. The purchase of a forest reserve on Kittatinny Mountain was then recommended and an expert forester began to estimate the annual loss and damages caused by forest fires.



Governor
Edward C. Stokes

With the lumber industry at low ebb, due to the inferior quality of standing timber across the State, Governor Edward C. Stokes, of Cumberland County, recognized the value of state forests in protecting watersheds and potable streams, and as game preserves, pleasure parks, camping grounds and picturesque drives. He recommended the purchase of state forest reserves in his inaugural address of January 17, 1905.

The State Board of Forest Park Reservation Commissioners was established on March 22, 1905 (Chapter 47, Laws of 1905) with an appropriation of \$10,000 to acquire, protect and restore forest lands through foresters, fire wardens, lookout watchmen and rangers. A supplement was enacted on March 22, 1907, to allow the Forest Park Reservation Commissioners to acquire "any land covered by a fresh-water lake or pond, or part thereof, within this State, and any land surrounding or adjacent thereto"

Governor Stokes proclaimed Arbor Day on April 14, 1905, as a day devoted to tree planting and nature study. In 1905, the new State Forest Commission acquired 373 woodland acres on a tongue of land between Great Egg Harbor River and South River, one and a half miles south of Mays Landing, and 597 acres in Bass River Township, forming the core of the first State forests. It also negotiated for the purchase of even larger tracts.

In 1906, the Commission purchased an additional 1,100 acres adjoining, or near to, the Bass River tract or Tuckerton reserve, and Samuel Budd Allen was employed as a caretaker. Another 1,043 acres were added to the Bass River reservation in 1907, including 25 acres containing buildings.

The original purchase of 597 acres in Burlington County for Bass River State Forest was made on November 14, 1905. Since its only contemporary, the Mays Landing Reserve, was sold to the United States War Department in 1916, Bass River has the pride of being the first State Forest. Typical of the Pine Barrens, it encompasses pine-oak upland forest, pitch-pine lowland forests and cedar swamps.



Good Oak Sprouts on Bass River Reserve
Plate IV., *Second Annual Report of the Forest Park
Reservation Commission, 1906*

When purchased, the Bass River Forest Reserve consisted of young pitch pine, oak sprouts, cedar swamp, and scrub oak; all with the exception of some of the swamp, badly burned at various times in the past. It was acquired with the intention of demonstrating “the possibility of maintaining commercial forests on our poorest sands, and the means by which that end is to be attained.”

Silvicultural work began at Bass River in April 1907 when a small nursery was established. Eighteen planting beds, each 4 feet by 20 feet, occupying about one-sixteenth of an acre, were enclosed by wire fence. By September 1907, the nursery contained 24,300 seedlings of Jack Pine, Western Yellow Pine, Scotch Pine, and Locust.

The Forest Park Reservation Commission decided in 1906 that a trained forester was needed to outline the proper policy to be pursued on the forest reserves, to

investigate proposed purchases of woodland, and also to advise private citizens who might wish to undertake scientific forest management on their own account. At this time, the United States Forest Service was training men in this work. Alfred Gaskill, a man well acquainted with the State, and for several years a member of the United States Forest Service, was employed as the first State Forester on February 1, 1907.

The Forest Reservation Commission prepared a bill providing for the appointment of fire wardens and the prevention of forest fires. It passed the Legislature and became law by the approval of Governor Stokes on April 18, 1906, thus inaugurating the Forest Fire Service. Theophilus P. Price, of Ocean County, was appointed the first Fire Warden. Township Committees in eighty-one forested townships were instructed to appoint local fire wardens. The entire cost of actual fire-fighting from July 4 through November 1, 1906, was \$5.30, one-half of which was paid from the State Treasury and the other half by the township of Shamong, Burlington County, in which the fire occurred.

Next to making an efficient Forest Fire Service and providing for the care of the State Forest Park Reserves, the most important work of the Forest Park Reservation Commission was to advise and assist woodland owners in the principles of woodlot management, showing them how to develop native forests and getting them to help preserve woodlands from destructive conflagrations. Among the first to join in this co-operative effort were the Water Commissioners of East Orange, whose wells were located on 900 acres of woodland and fields, and the City of Newark, which owned 9,000 acres in Passaic, Morris and Sussex Counties for its water supply.

From the outset, the Forest Commissioners used every opportunity to awaken an interest in forestry, to explain its principles and purposes, and to induce people generally to help in its work. In this effort, Women's Clubs played an important role, sponsoring illustrated talks, using colored lantern slides loaned by the United States Forest Service. The Commission also encouraged nature study, Arbor Day observances, and the teaching of forestry in schools, especially in connection with economics. Opportunities were sought to work with school boards and school teachers.

Lumber merchant Noah H. Hopkins, of Branchville, sold 5,432 acres of land on Kittatinny Mountain, near Culvers Gap, in May 1907 for a forest preserve, the largest that the State had yet acquired. This was soon named the E. C. Stokes Forest Preserve.

(Right) This old tobacco shed became the first Park Office at Swartswood State Park in 1942; (Below) State Forest Reserve Poster, E. C. Stokes Reserve, 1907; (Bottom right) Forest Ranger atop Normonock Mountain, Stokes State Forest, 1927.



Almost from the start, Stokes was considered the most suitable State Forest for a recreational park. Roads, trails and camp sites were developed as fast as funding permitted. Additional properties were acquired to make the forest easily accessible from the State Highway through Culvers Gap.



In 1914 the State purchased 180 acres of the heirs of John F. Coursen, of Sandyston. Through the purchase of 1,183 acres of land from Asher E. Snook, of Culvers Lake, in September 1916, the Department of Conservation and Development brought up its real estate holdings in Sussex County to a total of 6,523 acres. Their latest purchase covered the Rutherford, Layton, Lead Mine, Tibb Meadow, and Smith lots in Sandyston Township.



Stokes State Forest had been culled repeatedly, first for tan bark, and then for lumber and railroad ties. It also had been frequently burned. The property was subject to a six-years' cutting-lease, given as part of the purchase price, which allowed the former owner to cut and remove all merchantable trees, ten inches and more in diameter on the stump. Natural reproduction was thought vigorous enough to restore this mixed hardwood forest, in which chestnut (or rock) oak and chestnut predominated. In 1907, the chestnut blight was largely confined to lawn and park trees, and had not yet invaded the wild woods. At that time, chestnut was the commonest tree in the northern half of New Jersey, and an important member of the forest in parts of the south. It was extensively cut for railroad ties and for electric poles.

Fearing that the sale of its timber was imminent, the citizens of Moorestown persuaded the Forest Park Reservation Commission to acquire 20 acres of hardwood and pine on Mount Laurel for a demonstration forest in 1908. Mount Laurel is a small, rounded hill in the cuesta ridge that

extends southwest from Atlantic Highlands to Mullica Hill, dividing the Inner and Outer Coastal Plains. Standing 173 feet above sea level, a signal tower on this height was used, before the invention of the telegraph, to communicate important information concerning the financial markets between Wall Street and Philadelphia.

The E. C. Stokes Reserve was considered valuable as a water conserver. Good camp sites were found at a number of points, adjacent to streams containing trout. The ridge line of the Kittatinny Mountain furnished a point from which to attack any fire that gained headway on the reserve. It also offered many fine outlook points to tourists.

"In parts of this State, forestry must always be associated with the park idea, with water problems, with large questions in which the individual is not apt to be deeply concerned."
 Alfred Gaskill, "The Forester's Report," *The Third Annual Report of the Forest Park Reservation Commission of New Jersey, 1907*

Because of its small size, its location and physical characteristics, Mount Laurel State Park proved more valuable for recreation than for forestry purposes. A lack of water originally limited Mount Laurel to local use. A caretaker was appointed in 1940, to make weekly visits and to guard against vandalism.

On February 29, 1908, the Forest Park Reservation Commission made the first purchase of land for Lebanon State Forest to demonstrate the value of protecting southern white cedar and pines from fire and unregulated cutting. For some years, Lebanon State Forest was “used largely as a demonstration in fire control under particularly difficult conditions.” Camping, picnicking and bathing facilities were developed at Deep Hollow Pond. Picnic tables were set in a grove of pine and birch alongside the State Highway at Butler Place. Family cabins were built at Pakim Pond, near picnic and bathing facilities.

Land “in one of the wildest regions of southern New Jersey,” was purchased for Penn State Forest, Burlington County, on February 11, 1910. This tract of pine and cedar forest at Penn Place, the head of canoe navigation on the east branch of the Wading River, was a favorite stop for canoeists familiar with South Jersey’s streams. Penn State Forest includes Bear Swamp Hill, standing 165 feet high and forming one of the unusual elevations on the coastal plain. Its northern portions adjoined “the Plains,” a region of strangely stunted pitch pine and scrub oak. Lake Oswego, covering 90 acres, was developed with picnic and bathing facilities in 1942.

State Parks and Forests

Swartswood Lake in Sussex County became New Jersey’s first State Park when Andrew Albright, Jr., and Elizabeth Spurr, the children of Andrew Albright, sold 534 acres, covered by the lake’s waters, to the State for \$30,000 in August 1914, restoring free public access to New Jersey’s third largest lake. The deeds conveying Swartswood Lake, including 20 acres of upland for nine landing places, were filed on June 30, 1915. The purchase also included the right-of-way for a boulevard, which the State Forestry Board proposed to build on the east shore of the lake, allowing several access roads to connect with public docks. George M. Emmons donated his 12.5-acre picnic grove on the southeast shore, known as Emmon’s Grove, in February 1916, for use “as a public park forever.” A number of attractive camp sites were established for transient campers or to lease to public organizations for more permanent occupancy.



The Forest Park Reservation Commission, the State Water Supply Commission, the State Geological Survey, the Washington Crossing Commission, the State Museum, and the Fort Nonsense Park Commission, were folded into a new Department and Board of Conservation and Development on April 8, 1915 (Chapter 241, P. L. 1915). Administration of the forest reserves and Swartswood Lake was assigned to the Division of Forestry and Parks, under State Forester Alfred Gaskill, who assumed the duties of Director of the new Department. In the *Forester’s Report* for 1915, Gaskill noted that the State Forest Reserves were “not reserved in any way, but have been acquired primarily to be maintained as demonstrations in *practical forestry*, and secondarily as public *outing grounds*. The first object is being attained, the second will come with increased accessibility and greater need.”

The first administration account provided for: the 1,633-acre Bass River Reserve (\$345.99); the 3,498-acre Lebanon Reserve (\$494.86); the 373-acre Mays Landing Reserve (\$176.96); the 20-acre Mount Laurel Reserve (\$25.40); the 2,764-acre Penn Reserve (\$332.08); and the 5,548-acre Edward C. Stokes Reserve (\$770.72). The newly acquired 560-acre Swartswood State Park was considered the only park reserve solely “maintained for the use of the public.” No appropriations were available for Washington Crossing Park or for the Fort Nonsense Park project.

An important first step in the interest of conservation was taken in October 1915, when the Legislature passed a bill authorizing the State Water Supply Commission to purchase the Wharton Tract in Burlington, Camden and Atlantic Counties “for the purpose of appropriating and conserving the potable water thereon to the general and common use of the inhabitants of the State,” at the price of \$1,000,000. The scheme contemplated supplying water to the municipalities south of Trenton and it was estimated that something like 350,000,000 gallons of water a day could be had from the Wharton Tract. The purchase was necessarily conditional upon the concurrence of a majority of the voters, since the State Constitution stipulated that no State debt in excess of \$100,000 could be contracted, except when specifically authorized by the voters. The referendum was defeated at the general election in November 1915.

Forty-three acres of woodland near Cassville in Ocean County, comprising Jackson State Forest, was purchased

on December 11, 1915, for forestry demonstrations and research purposes. This nearly pure pine forest dated to about 1880.

Recreational parks increased in size and number after the First World War. In 1918, the Department of Conservation and Development proposed the creation “on the Kittatinny Mountain in Sussex and Warren counties [of] a great forest park for the benefit of the whole people” In 1920, Director Alfred Gaskill suggested “that the park be established as the State’s memorial to its sons who had made the supreme sacrifice in the Great War.”

Introduced in 1921, Senate bill 260 authorized the acquisition of the High Point property, the development of a soldiers’ hospital or home, and the transfer of the surrounding wild lands to the Department of Conservation and Development as part of the Veterans’ Memorial Park. The Department agreed with the Governor that the need for such a proposed home or sanitarium was questionable, but lent its strong support to the concept of purchasing the wild land by degrees, if necessary, and creating a park. In the Department’s *Annual Report for the Year Ending June 10, 1921*, Director Alfred Gaskill again explained his plan:

“In proposing that New Jersey’s memorial to her fallen soldiers take the form of a forest park, the thought is that there shall be created out of the heart of the home State a monument that shall not be subject to decay, but be everlasting. The plan lends itself easily to the erection of Organization, or Post, memorials of many kinds — monuments of stone or bronze, shelter houses, observation towers, so built and so dedicated that the region shall become a place of pilgrimage.”

A small forest nursery for loblolly pine was started at Bass River State Forest in 1921. In that same year, the new county road from New Lisbon to Four Mile opened up Lebanon State Forest to greater use. Silviculture experiments, studies and demonstration plantings at Mount Laurel, Lebanon, and Stokes, proved the value of thinning. The experimental plantations at Stokes, made in 1919, did so well that 8,000 more Norway spruce, Scotch pine and Black locust were added in the spring of 1921.

The purchase of the first 100 acres forming the core of Washington Crossing State Park was made in 1912. The Legislature stipulated in 1919 that this memorial park

was “not to exceed 350 acres” (P. L. 1919, p. 349). An appropriation of \$10,000 in 1921 was used to acquire the old Johnson Ferry House and a narrow frontage on the Delaware River. Other long deferred improvements were also undertaken. Landscape engineer Charles W. Leavitt prepared an attractive plan and the Mercer County Freeholders agreed to make the necessary highway changes. Leavitt described his plan for a nine-acre park as follows:

“My design provides an entrance to the park at the intersection of the Pennington Road with the state Highway, which is the first warning coming up from Trenton of the crossing, and here I propose a treatment of Colonial gates and walls with a commemorative tablet.”

Through the park a road 18 feet wide curves to the crest of the bluff where an Overlook is provided; thence it falls, past the Ferry House, to the upper, or Lambertville gate. Appropriate shrubbery and plantations are proposed. And having in mind the possibility of a National bridge spanning the river, provision is made to convert the Overlook to a bridge approach without affecting the integrity of the park.”

More money was needed to acquire three front lots. It was also necessary to purchase the strip between the highway and the canal, included in the landscapist’s plan (but not within the scope of the appropriation), as well as the land between the railroad and the river, which Leavitt considered “most essential, from an historic and sentimental standpoint,” since “the water’s edge and the ferry house were the stage on which this most important drama was enacted.”

The Legislature appropriated \$50,000 in 1923 to improve Washington Crossing Memorial Park and to restore the historic Ferry House in time for the Sesquicentennial celebration of 1926.

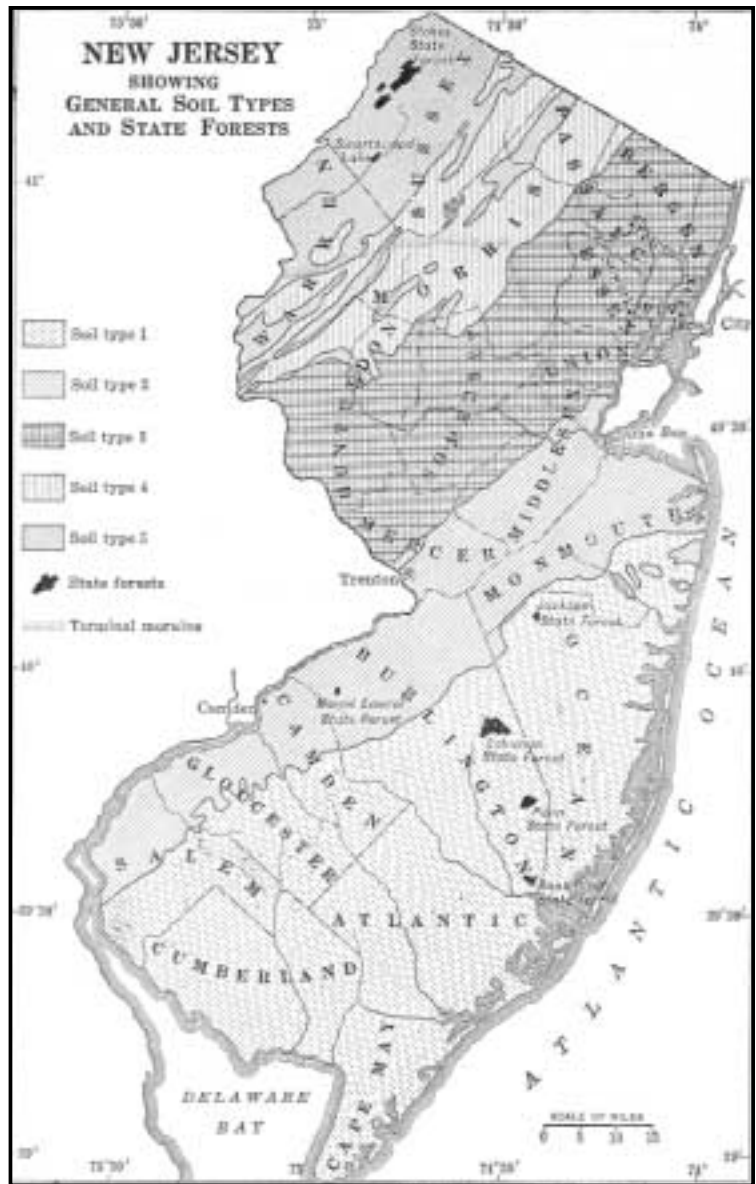
In consequence of the abandonment of the Morris Canal in 1922, the State retained Lake Hopatcong, Lake Musconetcong, Cranberry Lake, Bear Pond, Saxton Falls Pond, and Greenwood Lake, for public use, acquiring 351 acres for Musconetcong State Park and 328 acres at Cranberry Lake and Lake Hopatcong. New dams with modern spillways were built at Lakes Hopatcong and Musconetcong, Saxton Falls and Greenwood Lake. Musconetcong State Park encompassed the surface area of the lake and a few small strips of land along its shore, the largest being two acres between the dam and the

highway. The lake was dredged in 1932 to remove stumps and deepen the water. This work also provided 20 acres with a lagoon for public use, making the lake available for boating, bathing, fishing and picnicking. At Cranberry Lake State Park, 42 acres with a water frontage of 1,000 feet provided public access. Because of the expense of building an access road, crossing a railroad right-of-way, park development was delayed.

The State of New Jersey took ownership of Lake Hopatcong, New Jersey's largest freshwater lake, for "an aquatic public park for boating, fishing and winter sports," agreeing to maintain it "at the normal high water mark as now established, natural elements permitting." Additional park land adjoining the new Lake Hopatcong dam was purchased in 1928. The outlet stream, source of the Musconetcong River, passed through an attractive fountain. A turbine from a Morris Canal Inclined Plane was set up in a concrete shelter with a descriptive tablet. The old dam and a mill stone from the Brooklyn Forge and Grist Mill were also preserved. The work was completed in 1929.

Alfred Gaskill retired as State Forester and Director of the Department of Conservation and Development in 1922. Charles P. Wilber succeeded him as State Forester. The Department's forestry work divided into five main areas of responsibility: (1) statewide forest fire protection, through the Forest Fire Service; (2) the administration and development of the State Forests; (3) the promotion of forestry practice on privately owned lands, by advice and assistance; (4) the conduct of studies, experiments and demonstrations of means and methods for the best forest and market practice; and (5) a general educational effort to arouse an informed public consciousness of the need for, and the practicability of, forestry practice. The State forestry program cultivated public interest and support through forestry lectures and radio broadcasts, by initiating a forestry course for agriculture students at Rutgers College, taking forestry exhibits to fairs and association meetings, and by preparing special articles, press releases and special publications.

A prolonged drought, commencing in the latter half of June 1921, triggered an exceptionally destructive season of forest fires, especially at Bass River and Stokes, and emphasized the need for a Fire Service capable of dealing with any emergency. A greater number of responsible State firewardens were needed to control and direct the semi-volunteer township wardens upon which the service depended. The Federal government recognized the State's efforts and needs by increasing its annual



GENERAL SOIL TYPES AND STATE FORESTS

Soil type 1. Level land, soils sandy and sandy loams; suitable to production of market-garden crops, tree fruits, small fruits and cranberries. Forest covering parts unsuited to agriculture.

Soil type 2. Level to gently rolling land; soils loams to sandy loams, extremely fertile, with some marls; suitable to production of large crops of truck, potatoes, tomatoes, fruit, and corn.

Soil type 3. Gently rolling land with some rock ridges; soils south of moraine are loamy, shaly, or clayey; north of moraine, glacial soils are gravelly and sandy loams; Rich soils capable of producing large yields of hay, corn, grain, and forage crops.

Soil type 4. Rolling to hilly land; soils commonly loams, often stony; some broad fertile limestone valleys; rich pasture lands; gently sloping hillsides ideal sites for fruit orchards and dairy farming.

Soil type 5. Rolling to hilly land, occasionally mountainous; soils loams and sandy loams; considerable areas of muck lands only partially developed; hillsides and valleys suitable to orchards and dairy farming; market gardening on some rich muck lands.

Albert Meredith and Vivian Hood,
Geography and History of New Jersey, 1921

contribution from \$2,500 to \$6,550, though the use of these funds was restricted to north Jersey. Based upon these circumstances and recommendations, the Legislature doubled the appropriation for forest fire protection in 1923, allowing for the reorganization, enlargement and equipment of the Forest Fire Service.

For another Revolutionary War memorial, sculptor Frederic William MacMonnies fashioned his heroic relief of "Washington Refusing Defeat at the Battle of Princeton" from 50 tons of Indiana limestone. Governor Edwards accepted the Princeton Battle Monument on behalf of the State of New Jersey on June 9, 1922, before a crowd of 7,000 spectators. President Warren G. Harding delivered the principal address.

In 1923, the State Forests aggregated 16,504 acres. Eighty acres of experimental plantations, varying in age from one to fifteen years, were established for public demonstration purposes and market studies. The State Forests were made fully available for recreational purposes, such as camping, fishing and hunting. Stokes State Forest, the most popular, attracted several hundred persons to its camp sites in the summers of 1922 and 1923.

In fulfillment of Alfred Gaskill's plan for a veterans' memorial park, Colonel Anthony Kuser, of Bernardsville, and Mrs. Susie Dryden Kuser, a daughter of John F. Dryden, offered to donate their superb estate, known as High Point, together with the adjoining Blue Ridge Tract, covering sixteen square miles or about 10,400 acres, in November 1922. Their gift included the highest mountain in New Jersey.

At his office in the Public Service Terminal in Newark, Colonel Kuser said: "We hope to have the state hold the property forever as a public park or reservation for the free use of the people. We make only one condition, namely: That it be restricted as to the shooting of birds, excepting those known as vermin. We suggest the name be 'High Point Park.' The large house can be used as a sort of tea or rest house where light luncheons can be served during the spring, summer and fall months." About 85% of the entire tract was woodland and there were about five miles of roads of stone and shale on the property, the shale taken from quarries on the place.

Because of the park's large area and previous use as a private preserve, visitors found extensive tracts of unspoiled wilderness that particularly appealed to students of nature. High Point State Park features a high elevation ridge-top with pitch pine and scrub oak forest, exposed rocky outcrops, and chestnut oak forests. There

is also an inland Atlantic white cedar swamp and red maple swamp forest.

The High Point Park Commission was created to preserve and improve the new park as a nature reservation, with the power to lay out and construct roads or pathways. They were also to provide for the pleasurable public use of the grounds for general park purposes, subject to rules and regulations, and also by campers and vacationers, provided that there was no shooting or trapping of birds.

The High Point property consisted of 2,200 acres, nearly all of which was enclosed with a nine-foot woven wire fence, surmounted with a continuous barb wire. Gates were situated at convenient points. The 8,400 acres of the Blue Ridge tract, also known as the Rutherford property, adjoined the High Point estate on the west. The tract included about eight farms and several miles of the Little and Big Flat Brook, also ponds, and beautiful waterfalls from Lake Rutherford.

The great house at High Point had thirty-seven rooms, besides nine bathrooms, and was built in 1911 by day work, by remodeling the structure of the old High Point Inn. It was constructed of stone and wood covered with shingles, with a massive steel frame work. It was lighted by electricity and acetylene, heated by steam throughout, and a number of large fireplaces. The basement, entirely above ground, consisted of a kitchen, servants' dining room, store room, laundry, and four additional rooms with lavatory and a bath. The first floor had a large living room, 31 x 47, dining room 25 x 31, billiard room 25 x 31, also breakfast room, pantry, library, telephone room and gun room. The second floor had eleven master bedrooms and seven bathrooms. The third floor had three master bedrooms and bathrooms, also eleven servants' bedrooms and bath. There were two main stairways leading to the second floor and one stairway from the second to the third floor.

A wide veranda encircled the house, affording not only a fine opportunity for promenades, but a magnificent view in all directions. It was very substantial, broad and ample, and added no little to the architecture of the structure. The house and veranda were lighted by electricity from a plant on the eastern end of the lake, where was also located the garage, ice house and pumping plant.

Lake Marcia, at the foot of the mountain, is the highest natural spring lake in New Jersey. It is five-eighths of a mile in length, one-quarter of a mile wide and in some

places fifty feet deep. It was stocked with breeding trout and no fishing was permitted there after 1910.

There was a stone road running from the lower end of the lake to Cedar Park, a distance of nearly two miles, to that wonderful formation of spruce, cedar and rhododendrons, covering 115 acres, a growth so thick that one had to crawl on hands and knees to get through it. This was a sanctuary for wild birds of the game order.

Adolph Edward Borie donated the core of Hacklebarney State Park in 1924, which was subsequently enlarged by purchase and gift to 286 acres. The unusual beauty of the site, which encompassed the scenic gorge of the Black River, attracted more than 66,732 visitors in 1932. Its forest cover included stands of old hemlock and mature hardwoods, set off by dense masses of dogwood, laurel, and azalea. Consequently, the property was maintained in its natural condition, with every effort to preserve the native vegetation as unspoiled as possible.



The Wallace House, Somerville, NJ, circa 1907.



The oldest extant photo (circa 1890) of the Steuben House, Historic New Bridge Landing, River Edge, NJ

Because the topography was unsuited to roads, extensive nature trails were developed. Besides ample parking facilities, a large number of picnic sites were constructed, including thirty-five equipped with stone fireplaces. The entrance was marked with stone pillars and a memorial tablet placed by the park's donor.

Hacklebarney State Park was completely reconditioned in 1938-40, chiefly with the aid and assistance of CCC workers from the camp at Voorhees. A new parking area for 350 cars was completed and extensive landscaping undertaken. Sixteen new drinking fountains were installed, a combination contact station and concession stand was erected, all fireplaces were rebuilt, and all foot trails were relocated and reconstructed. Work started on a combination garage and equipment building in 1940 and electricity was brought into the newly renovated Headquarters house.

Between celebrations of the Sesquicentennial of American Independence (1776-1926) and the Washington Bicentennial (1732-1932), the State of New Jersey authorized acquisition and preservation of four more historic sites, namely: the Steuben House at River Edge in 1926; the Dey Mansion at Preakness in 1929; the Hancock House at Lower Alloways Creek in 1931; and the Wallace House at Somerville in 1931.

On January 25, 1926, Senator William B. Mackay and Assemblyman John Y. Dater introduced companion bills, asking that \$12,000 be appropriated to purchase the Steuben estate at New Bridge (River Edge) as "a place of national significance dear to the heart of every Jerseyman who wishes it to be preserved." The bill passed the Senate (12 to 2) on February 8, 1926. A large delegation from the Steuben Society listened from the galleries to Governor A. Harry Moore's oration on George Washington, delivered on Washington's Birthday, February 22, 1926. Immediately thereafter, the Steuben House Commission bill passed the General Assembly unanimously (57 to 0) and was signed into law.

The Steuben House Commission was organized on June 26, 1926, to oversee the acquisition and restoration of the Steuben House. While some had hoped that the family of William Randolph Hearst, owners of the historic estate, would donate the premises to the public, negotiations stalemated when they instead demanded what Sheriff Joseph Kinzley, Chairman of the Steuben House Commission, considered "a Tammany Hall price for the place." When the Hearst family refused all offers, the legislature authorized the use of condemnation. In May 1928, the Hearst interests contested eminent-domain

proceedings but lost. The State of New Jersey took title on June 28, 1928, paying \$14,000 for the decaying landmark and only one surrounding acre of land.

On March 11, 1929, Sheriff Kinzley urged the Legislature to appropriate \$100,000 for restoration of the house and grounds, but received no official response. In the absence of official action, the Frank J. Van Wetering Post of the Hackensack V.F.W. cleared overgrown vegetation that obscured the house and hired a man to maintain the grounds. The General George S. Patton Post of Dumont started a fund drive and some money was raised to assist with maintenance. The Bergen County Historical Society urged that the State immediately appropriate \$25,000 for emergency repairs and upkeep. A bill was introduced in February 1930 to that purpose, but it was not enacted.

Finally, in April 1931, Assemblywoman Emma Peters, of Rutherford, managed to get a \$7,000 emergency appropriation to repair the deteriorated roof and to settle outstanding bills. On June 18, 1931, a contract was awarded to the Collins Construction Company of Hackensack. Accordingly, \$6,116 worth of rehabilitation began in July, under the supervision of architect Wesley S. Bessell, and included uncovering a beamed ceiling and putting on a new roof. Some of the funds went to pay a caretaker and to cover other outstanding obligations.

In July 1931, Joseph Kinzley, chairman of the Steuben House Commission, reported that restoration work on the old Steuben House would be completed by the fall. The work largely consisted of tearing down decaying structures, removing accumulated debris, rebuilding stone walls, fireplaces and chimneys. The contractor was also directed to preserve "all the old Holland brick, handsome hewn beams, stone block and old sills in the building." A beamed ceiling that was replastered was "reputed to be one of the finest examples of the Colonial period in this section."

Initial plans did not provide for heating or sanitation, though there was hope of installing a resident caretaker in one or two rooms. Large numbers of visitors were daily making special visits, arriving from all parts of the State.

Former Governor Foster McGowan Voorhees gave his High Bridge farm of 323 acres on Willoughby Brook, known as Hill Acres, to the State of New Jersey "for forestry and similar purposes" upon his death in 1927. The park offers striking views of the Raritan valley. About 150 acres of open fields were quickly planted with evergreens, meeting the donor's desire for the establish-

ment of experimental and specimen plantations for forestry purposes. Roads, trails, fireplaces and picnic grounds were laid out in 1939. CCC workers demolished the old barns at the Voorhees estate in 1940 and landscaped the area. Work began on a contact station.

The first purchase of land for Belleplain State Forest was made on February 29, 1928. This tract of 5,565 acres of woodland was intended for recreation, wildlife management, timber production, and water conservation. The East Creek Lodge at East Creek Pond was built as a group cabin with nine bedrooms to sleep 16 persons. Equipped with electric lights, electric refrigerator, gas cook stove and hot-water heater, its cooking and dining facilities could accommodate 24 persons.

The State of New Jersey purchased 1,614 acres of pine, oak and cedar forest along the Mullica River on February 2, 1930, forming the core of Green Bank State Forest in Burlington and Atlantic Counties. Except for the area in the vicinity of Green Bank, the greatest part of the forest consists of inaccessible southern white cedar swamps.

A crew of fourteen men planted 100,000 trees in Stokes State Forest in April 1930, consisting of 70,000 red pine, together with some Norway spruce, Japanese larch, Scotch, jack, pitch, and white pine. The latter was planted with red pine to lessen the danger of white pine weevil. The majority of the plantings were made on the recently purchased Dan Johnson place. Some 300 Japanese chestnut were planted with Japanese larch as foresters tried to find a partial substitute for the blighted native chestnut.

In November 1927, Colonel Anthony Kuser offered to donate \$500,000 to erect a granite-clad obelisk on New Jersey's highest peak to honor the Veterans of all wars. The Hoffman Construction Company, of Bernardsville, began construction of the High Point Veterans Monument in August 1928. In preparing the site, the hardness of the rock required drills to be re-sharpened after only four inches of work. Frank Moreno supervised Italian stone cutters quarrying a fine-textured granite from the Hinchcliffe Quarry at Glenwood in Vernon Township, which foreman Albert Bensley managed to haul on mammoth trucks by way of Tri-States. Washed sand was carted from Huguenot, near Port Jervis, and heaped in piles at the base of the foundation. A narrow gauge tramway conveyed the stone blocks and building materials to the summit. The huge reinforced concrete pedestal was poured before the onset of cold weather halted work for the season. With the base of the monu-

ment completed, Governor Morgan F. Larson laid the cornerstone with a silver trowel on June 8, 1929.

In July 1929, a steel mast and hoist was erected. With the rising exterior wall of granite blocks, ten to twelve inches thick, serving as a form for pouring concrete, the monument began to grow at the rate of three feet per day. When the cost of cutting local granite proved prohibitive, it was replaced with granite harvested from a New Hampshire quarry. The bronze door and tablets were installed on June 13, 1930.

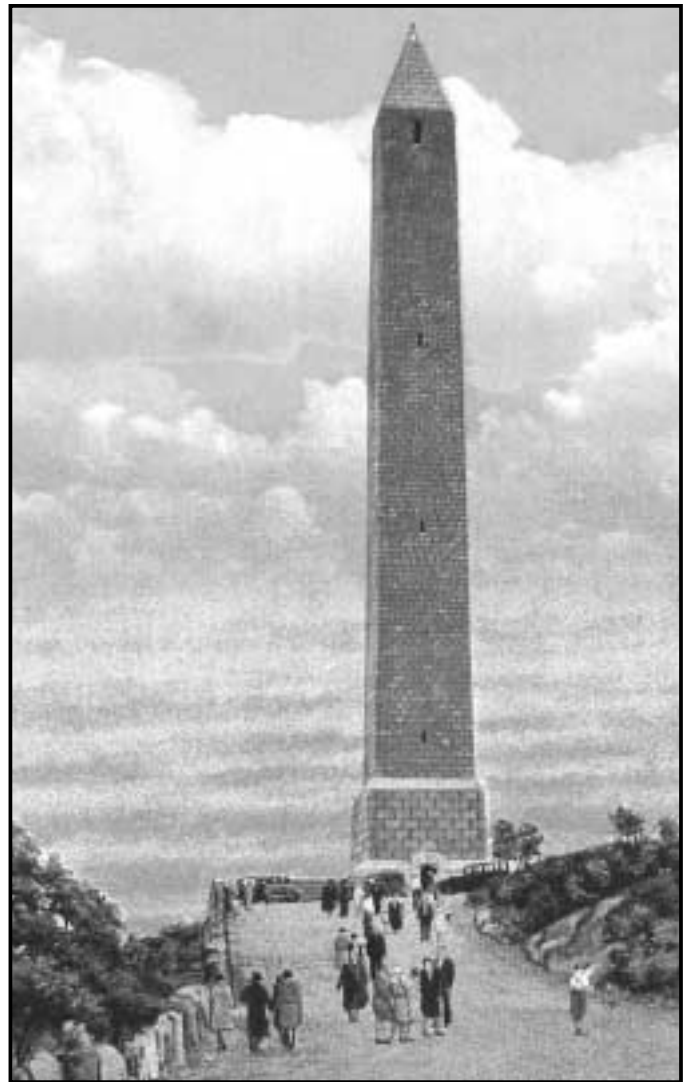
The High Point Veterans' Monument was dedicated to the "Glory and Honor and Eternal Memory of New Jersey's heroes by land, sea, and air, in all wars of our Country" on June 21, 1930. As an airplane dropped flowers from overhead, Assemblyman Dryden Kuser, of Somerville, officially presented the monument to the people of New Jersey. Major-General Charles P. Summerall, Army Chief of Staff, the principal speaker, praised New Jersey's patriotism during the Nation's wars.

As designed by architects M. S. Wyeth and F. R. King, the High Point Monument is a granite-clad obelisk, 218 feet tall, measuring 34 feet square at its base and 20 feet square where the apex begins. It is capped with a rock-faced dimension stone, 3 feet square, securely doweled to its supporting walls. The four corners of the shaft are built with rough hammer-dressed rock-faced quoins. A beacon originally shone through the four windows at the top and the entire memorial was lit by exterior floodlights.

The obelisk surmounts a parapeted platform, 20 feet wide, reached by a broad staircase. Centered at the base of the shaft, bronze doors emblazoned with the Great Seal of the State of New Jersey open into an octagonal chamber about 21 feet in height with a patterned flagstone floor. The shaft with its hollow core rises above the concealed groined arched ceiling of the entry chamber. The shaft is faced with granite, but quartzite quarried in the Park was used for the back courses or filling.

A new ticket office was erected near the High Point Monument, on the right hand side of the approach to the monument, in May 1931. It held cash registers, tickets and a place for various literature. The admission to the monument was 25¢ for adults and 10¢ for children.

Contractor Joseph L. Judd, of Montague, built a large cafeteria and restaurant, measuring 181 feet long and 46 feet wide, at High Point in 1931, using cut stone quarried at the south end of the park. The western porch of



the building, enclosed in glass, offered a magnificent view of the Delaware valley. E. J. Gage, of Ridgewood, a well-known New York caterer, provided the food services. A large plaza and parking lot were erected around the building. Nearly 700,000 people visited High Point State Park in 1932.

Parvin Lake is an old sawmill pond upon Muddy Run, a west branch of the Maurice River. Stands of swamp cedar, pines, oaks, holly, and laurel at the lake's outlet comprise Union Grove, a popular summer resort and picnic grove for many years. Because of the complete absence of State Park property in the southern two-thirds of the State, the New Jersey Legislature made a special appropriation for the acquisition of 921 acres, encompassing Parvin Lake, in 1931. It was maintained in its previous use as a bathing beach and picnic resort. Landscape architects planned the park to make it a standard for the South Jersey Coastal Plain. It includes some of the finest remaining tracts of old swamp cedar, which were considered valuable relics.

The wooded upland, covered with pine and oak forest, masses of old-growth laurel and holly of unusual size and beauty, made a perfect park setting. Two miles of Muddy Run, flowing above the lake through dense swamp cedar, was admired as a scene of unusual natural beauty. Under State ownership and protection, the park immediately began to attract waterfowl, upland birds and other wild life, offering nature lovers an opportunity for a rich out-of-doors experience.

By 1938, Parvin State Park offered a wider variety of recreational attractions than any other State Park, except for High Point. Sunday and holiday crowds frequently exceeded 10,000 persons and on one occasion in 1940, the attendance exceeded 14,000 people for the day, severely over-taxing the accommodations and personnel. Facilities were provided for bathing, boating, fishing, camping, picnicking, and hiking. New facilities were added in 1939 at Parvin Grove, including a brick bath house accommodating 2,200 bathers. Other improvements included a new diving platform, a canoe and boat livery, and parking spaces for 700 cars.

In 1940, a new masonry foot-bridge was constructed to facilitate the circulation of visitors around the shores of Parvin lake. Over a half-mile of foot trails were opened to make the wilderness area accessible to the public. On September 1-2, 1940, a severe flood greatly damaged the dam at Parvin Lake, necessitating extensive repairs. A new dam, spillway and bridge, finished in May 1942, considerably enlarged the usable lake frontage.

A new recreation area was developed at Thundergust Pond. The pond was deepened, two bathing beaches were developed, and a contact station was constructed. Seven cabins were completed in 1940 and construction of ten more was started (seven of these being finished in 1941).



The Community House, Parvin State Park, 1932

Work on the Thundergust Picnic Area began in 1940. Parking facilities, walks, a playfield, soft-ball diamond, bathing beach, and 16 picnic tables were installed. A large shelter, drinking water, sanitary facilities and bath house were part of the plans. The area was used as a day-camp for underprivileged children in 1941. When completed, it was also to serve as a reserved area for large organized picnics.

The first purchase of 843 acres of mountain woodland, stream and lake, comprising Jenny Jump State Forest, was made on February 20, 1931. Located on a spur of the Western Highlands, with elevations ranging from 399 feet at Mountain Lake to 1,108 feet near the Forest Headquarters, its forest roads and trails offered magnificent views of the Delaware Water Gap, about 12 miles distant, and of the Great Meadows of the Kittatinny Valley.

Writing in 1932, State Forester Charles P. Wilber explained the growing appreciation of the recreational potential of the State Forests:

“Taken primarily as timber properties and managed for the protection of their forest values and possibilities as they are, their development for recreation uses in no way interferes with their future as woodlands. Their greater areas as single units than the average park and their maintenance as forest, make them of especial interest and value to those to whom the wilderness appeals. Their inevitable inclusion of beauty spots, of streams and ponds, of ridge and plain provide beauty and natural features of use for the recreationist of the same character but of greater variety and extent than most parks. In their administration this has been recognized and they now serve a great number as favorite picnic and camp sites, as fishing and hunting grounds, as retreats or as transient objectives afoot or awheel.”

Reflecting his inaugural pledge for “ruthless” economy in government, Governor A. Harry Moore sent an economy program to the General Assembly in February 1932, urging the abolishment of fourteen independent commissions and the consolidation of their powers and authorities. Several bills spelled out the transfer of the duties of the Washington Rock Park Commission, in Somerset County; the Dey House Washington Headquarters Commission, at Preakness; and the Monmouth, Princeton, and Trenton Battle Monument Commissions to the Department of Conservation and Development.

Governor Moore's bills also transferred the duties and unexpended balances of the commissions created to mark historical sites, and the duties of the Old Steuben House Commission in Bergen County; the Old Tavern House Commission at Haddonfield; and the Hancock House in Salem County, to a newly created Historic Sites Commission within the Department of Conservation and Development.

The Historic Sites Commission was empowered "to acquire by gift or purchase, or by the exercise of the power of eminent domain, areas, properties, lands, or any estate or interest therein, situate within this state, of historic interest or other unusual features which ... should be acquired, preserved, and maintained for the use, education and pleasure of the people of New Jersey." At the time of its formation, this Commission was vested with the care and control of six historic homes, four Revolutionary War battle monuments and one Revolutionary War site. Three years later, the Atlantic County Historical Society acquired the Somers Mansion at Somers Point and conveyed title to the Historic Sites Commission. Rockingham was turned over to the Commission in 1935.

In 1934, the Works Progress Administration prepared measured drawings of the Steuben House for the Historic American Buildings Survey. The Bergen County Historical Society held its first program there on Constitution Day in September 1935, when caretaker, Mrs. Gordon Brown Kynoch, escorted members through the rooms under restoration. On October 30, 1937, the Historic Sites Commission dedicated a bronze roadside marker and a bronze wall plaque at the site. At this time, Louis Sherwood, of the Historic Sites Commission, forecast an impending restoration of the house by the WPA.

On June 20, 1938, a crew of WPA workmen began a \$20,000 renovation of the Steuben House (the New Jersey Historic Sites Commission contributing \$3,000 and the WPA supplying \$15,800 worth of labor to the project). A new oil heating system, a bath and lavatory were installed. The grounds were drained by a system of subterranean concrete conduits and drains and the New Jersey Highway Department built an 18' roadway around the house. On October 14, 1938, Thomas Marple, Assistant Director of the Historic Sites Commission, offered to allow the Bergen County Historical Society to occupy the restored Steuben House as their museum headquarters. The Society accepted on October 20, 1938.

The Board of Conservation and Development was authorized to locate, select and acquire lands bordering

Raritan Bay, in South Amboy and Keyport, for the establishment of Cheesequake State Park in 1932. The Legislature appropriated \$100,000 in 1937 for land acquisition and development. The first purchase of property, totaling 735 acres, was made in 1938. The Works Progress Administration oversaw the demolition of buildings on the Favier farm and the construction on this site of a superintendent's house, office building, garage and equipment depot. Other improvements included the construction of 77 fireplaces, 70 picnic tables, 110 trailside seats, four shelters, five latrines, five miles of park roads, eight miles of foot trails, and three parking lots accommodating 350 cars. Governor A. Harry Moore opened Cheesequake State Park to the public on June 21, 1940.

Approximately 200 acres were added to Cheesequake State Park in 1941. Works Progress Administration Project No. 3, initiated in 1941, undertook construction of three lakes: Hooks Creek Lake of 10 acres; Booth Lake of 2 acres; and Thomas Pond of 1 acre. An additional three miles of park drives and six miles of hiking trails were laid out. A trailside nature study museum was constructed in 1941-42.

From 1932 to 1941, twenty-two Civilian Conservation Corps camps in New Jersey engaged in making improvements in seven State Parks and eight State Forests, covering 51,374 acres. Specifically, the CCC operated seven camps within five State Forests, as well as camps within two State Parks. Several other CCC camps were shared jointly by the State Parks and other public agencies.

The program spent 226,897 man-days on State Forest work alone in 1939. At that time, the average annual cost of operating a camp, including materials purchased for work projects, amounted to \$180,000. In 1941, its final season, the Civilian Conservation Corps provided 178,193 man days of enrolled labor to the State Forest properties, consisting of 168,167 man days on the State Forests and 10,026 man days for the Forest Fire Service on fire control projects on private lands. By that time, camps were not operating at full authorized enrollment, due to the shortage of enrollees.

The CCC enrolled unmarried and unemployed citizens, 17 to 24 years of age, in six-month programs and up to two years of job training. Enrollments were received in April and October, allowing farm boys to sign up for the winter months and return home for spring planting. Workers earned approximately \$30 per month. After camps had their full quota, several hundred additional enrollees were sent to the Ninth Corps area in the far

West, to New York State and to Delaware.

Enrollees engaged in erosion control, nursery work and reforestation. They constructed park roads, trails, bridle paths, vehicular bridges, ponds for fish and water fowl, look-out towers, observatory shelters, picnic fireplaces, campgrounds, recreational lakes, and landscaping.

Two Civilian Conservation Corps camps, S-51 and S-71, were established in Stokes State Forest. Workers from C. C. Camp No. 51 constructed Lake Ocquittunk (from the Lenape word for "crescent") in the summer of 1934. The new lake, covering about eleven acres, was developed with parking spaces, picnic tables, fireplaces, sanitary facilities and a wading pool for children. A bathing beach, a shelter and bath houses were built on the south shore in 1936, close to the parking spaces. Eleven log cabins were erected in 1936-37 on the west side of the lake in a grove; each was outfitted with a large living room with a fireplace, and a small kitchen. A shady grove to the east was set aside for 24 picnic fireplaces, tables and benches, two shelters and two comfort stations. Ten trailer camps and additional camp sites were opened near Lake Ocquittunk.

A group camp was constructed at Skellinger Lake in Stokes State Forest in 1939-41, including sleeping quarters, wash house and infirmary, an administration building, latrines, mess hall, craft-house, water-system pipe lines and reservoir. The Skellinger dam was raised in 1941.

A caretaker's residence, garage and supply building were erected at Lake Ocquittunk. Beach improvements and an auxiliary spillway were also completed. The bottom of Shay Lake was cleared and work began there on construction of a dam. A new double-arch bridge over the Flatbrook was built in 1939-40. A shelter, fireplaces, a bridge, well shelter, and other facilities were completed in 1939-40 at Kittle Field. An equipment building and garage were built at the Stokes Headquarters in 1940.

The CCC workers also developed foot trails, trail-side benches, parking facilities, shelters and picnic sites at Tillman Ravine, an area of about eight acres of mixed hardwoods and conifers. Its central feature, Tillman Brook, cascades over glacial rocks and huge boulders, between precipitous banks, canopied by a magnificent hemlock grove, and faced with masses of rhododendron. The area includes hardwood groves and a fine stand of white pine.

CCC workers also constructed the Sunrise Mountain

Road in 1936 to provide access to a scenic view of the valley below Culvers Gap from the summit of the Kittatinny ridge. They built the Observatory Shelter at an elevation of 1,653 feet on Sunrise Mountain in 1937-38, at a site along the Appalachian Trail. A manually operated railroad was used to bring carloads of building materials along 400 feet of track on a 45° grade up the steep side of Sunrise Mountain.

CCC workers from Stokes also built new fireplaces and picnic tables, made beach improvements, and installed a sewage system at Swartswood State Park, where the land area of only twelve acres was already taxed to capacity. A much-needed addition of 168 acres from the adjoining Emmons farm was made to Swartswood State Park in 1941, enabling an expansion of its picnic facilities. Fifteen new picnic tables were set out and a new water pump was installed at the Emmons Grove concession stand. An old stone farmhouse on the recently acquired land was renovated as a park helper's residence in 1941. Other buildings, part of the old farm, were razed. Electricity for power and lighting was introduced in 1941.

The Civilian Conservation Corps set up three camps at Belleplain. CCC workers converted the Meisle Cranberry Bog into Lake Nummy in 1939, complete with a bath house, boat house, and parking lot. They also constructed the original forest headquarters, maintenance building, a road system, bridges, and dams.

Camp Kuser of the Civilian Conservation Corps stood at the northern end of Lake Marcia in High Point State Park. Its inhabitants built rustic picnic pavilions; twenty miles of park roads; Monument Trail with its quarter-mile stone staircase; the Sawmill Lake dam and campground (1934-36); bathhouses; shelters along the Appalachian Trail; two cabins at Steenykill Lake (1941); campsites and stone fireplaces. They also constructed the Iris Inn in 1936 for visitors' lodgings (this became the Park Headquarters in 1969).

Workers from CCC Camp 58 made considerable improvements at Jenny Jump State Forest, completing the road over the mountain in 1935 that connects the Forest Headquarters to the main road between Hope and Great Meadows. A new equipment depot was completed and additional parking facilities were developed in 1939.

The Civilian Conservation Corps completed a recreational area, including construction of an 800-foot earthen dam with clay core and concrete spillway for a

new 67-acre lake with a sand bathing beach and diving platform, at Bass River between 1939 and 1941. Construction of a contact station, latrines, five camp shelters, three overnight cabins, began in 1940.

Two CCC camps were located within Lebanon State Forest. Their workers excavated the Deep Hollow Pond for a recreation area and developed Pakim Pond, building a spillway and log cabin colony. The CCC completed two bath houses, three overnight cabins, an equipment depot and one work shop. A well-equipped sawmill operated at Lebanon State Forest, supplying a large share of the rough lumber needs of the State Forests and Parks.

The dam at Lake Oswego in Penn State Forest was rebuilt in 1938-39 and additional landscaping completed at the recreation center. An airplane landing field was completed for the Forest Fire Service at Penn State Forest in 1940. A new spillway was also built there and the dam repaired.

Charles P. Wilber, State Forester and Chief of the Division of Forests and Parks, prepared and published *A Program for State Ownership of Park and Forest Land in New Jersey* in April 1937. He established two general underlying principles in considering the matter of State-owned park and forest lands:

“(1) The function of the State is to provide ‘open space’ or recreation areas of a character or in locations which will serve the population of at least a considerable section of the State. Such areas will ordinarily be of large wild land properties or of unusually high cost properties which, because of their primary value to the whole population are desirable but which are outside the scope or beyond the means of the local government unit. Exceptions to this general principle will occur when historic, scenic or similar factors of Statewide interest justify State ownership and maintenance of smaller areas or of areas which from a purely recreational standpoint would not be made State projects. It is not the function of the State to provide small playground areas, the primary value of which and the major use of which will be for local populations immediately adjacent to them, nor to maintain breathing spaces in the centers of dense population, these being functions of the county and municipal governments.

(2) There are two types of ownership involved in

the program proposed; (1) State Parks (2) State Forests. Both types can and should serve the needs of the public for open spaces. In use no sharp line can be drawn between them. In cost there is this distinction: much higher prices are justifiable in purchases for park purposes and much greater expenditure may be made for their development. Also parks may or may not be fully self-supporting and, while many such areas can and should be handled under scientific forest management, such administration is a secondary consideration. Areas taken as State forests, however, are expected to and will, under proper management, become commercially productive timber areas as time goes on. There is, therefore, a price limit for purchase cost and a maximum per acre limit for maintenance. However in the New Jersey situation, with the State’s dense population and limited area of available open spaces, there will certainly be park value and park use of any large forest holdings owned by the State. This will often justify a considerably higher price for such woodland areas than would be permissible for strictly forestry use both for purchase and maintenance. The two programs are so closely related that they must run parallel and under close coordination to avoid duplication.”

As privately-owned wilderness areas were rapidly closing to unrestricted recreational use, Charles Wilber realized that only an organized system of public parks and forests would offer an opportunity for out-of-doors recreation on a scale sufficient to address the demands of New Jersey’s increasing and sprawling population. A general wild land ownership program would play a larger part in fish and game conservation, providing public hunting grounds, public fishing streams and ponds, and wildlife sanctuaries for purposes of conservation and stocking. Wilber estimated that there was almost two million acres of wild land in New Jersey in 1937, comprising nearly one half the total area of the State. Due to the decline of agriculture, the concentration of population in towns and cities, and the degradation of timber lands, the acreage of wild lands was increasing, not declining.

Wilber also recognized that recreation was big business, as indicated by New Jersey’s own seashore resort industry. “People go where there is something to be seen and done,” he said. “We have the raw materials, we have the highways to make them accessible, we would be wise to make this combination over into attractive and available objectives. Adequate public reservations, reasonably

developed, can multiply many fold the pull on and the profit from visitors to New Jersey, with profit to the locality and consequential benefit to the State.” The Board of Conservation and Development was therefore committed to a comprehensive program of State Forest ownership involving a minimum ownership of 200,000 acres of wild land for maintenance as woodland. Additionally, it recommended the acquisition of more costly park land to also serve wild life conservation, watershed protection, recreation, and other public needs.

Marcy P. Stephens and August W. Stephens, of Summit, New Jersey, donated 230 acres in Warren County to the Board of Conservation and Development for a forest park in July 1937. This tract is situated about two and a half miles north of Hackettstown on Waterloo Road. It consisted of rolling hill country, about one-third open land and the balance woodland. The property occupies both banks of the Musconetcong River for nearly a mile, and includes the banks of a picturesque tributary brook. The old Stephen's homestead was included in the gift.

The Civilian Conservation Corps camp at the State Fish Hatchery in Hackettstown devoted part of its time to making improvements at Stephens State Park, completing a mile of foot trail, twenty-two picnic fireplaces and tables, a contact station, and comfort stations. They also planted 30,000 seedlings on open land, made improvements on 50 acres of woodland, and reconstructed a mile of abandoned road to provide park access. A dry retaining wall was built along the river road and the road bed filled with rock and gravel. In 1940, a few tables and benches were placed on the island in the Musconetcong River. Work also began on a public camp ground. Electricity and a water system were installed. Two new flood gates for the Stephens dam were constructed in 1941. CCC workers landscaped the equipment depot and built a foot bridge and guard rail.

In 1937, Erskine Hewitt donated ironmaker Abram S. Hewitt's Manor House and 95 adjoining acres, inaugurating Ringwood Manor State Park. Norvin Hewitt Green, nephew of the late Erskine Hewitt, deeded many of the original Hewitt furnishings and relics to the State.

Following renovations and proper arrangement of the furnishings, the 78-room residence was opened for public inspection on September 24, 1938, “as a museum and outstanding example of 19th century living conditions.” A formal dedication of Ringwood Manor State Park was held on June 17, 1939. Mr. Green used the occasion to announce an additional gift of 135 acres.

The Department of Conservation decided that Ringwood Manor State Park was “primarily an historic shrine and differs from other parks in this respect.” State employees constructed a twelve-foot overshot water wheel on the approximate site of the original furnace. It pumped 14,000 gallons of water daily to water the extensive lawns and gardens on the property. Electricity was installed in the Manor House in 1939 to allow for better viewing of the exhibits. In 1940, 23,372 adults paid the

10-cent admission to view the Manor.

Park personnel erected directional and regulation signs, four rustic log barrier gates, and a main entrance gate at Ringwood in 1940. Civilian Conservation Corps workers installed 50 picnic tables, guard rails to control parking in two areas, guard rails along the Mill Pond road, three drinking fountains, and the concrete footing for an ornamental slab wall in front of the Manor House. They also demol-

ished old concrete building foundations and floors, laid out 2,325 feet of foot trail through the picnic areas, and established a small nursery to provide ornamental planting stock.

The CCC camp working on the Newark watershed devoted part of its program to the development of Ringwood Manor State Park, building three comfort stations, a picnic area with nine fireplaces, picnic tables, and 40 log seats. Other projects consisted of construction of a parking lot for 350 cars and diversion of the stream to provide a more rapid flow of water through the lake and deepening of the lake. The historic associations of the surrounding countryside justified further public ownership and the park grew to 579 acres by 1964.

Thanks largely to the Civilian Conservation Corps and

Purpose

The State Forests belong to the people of New Jersey and are administered for their benefit. They are managed primarily for timber production and water conservation, and serve as laboratories for forestry experiments and demonstrations of the many problems involved in wild land uses. While fulfilling the above major obligations, the State Forests are also managed for public recreation and the protection of wild life. The State Forests are open at all times to be used to the fullest extent for outdoor recreation, such as camping, hunting, fishing, picnicking and hiking.

The New Jersey State Forests, Division of Forests and Parks, Department of Conservation and Development, May 1942

the Works Progress Administration, new recreational, fire-protection, and administrative facilities were developed in 1937-38. Over 700,000 people visited New Jersey's State parks, forests and historic sites in that year (not including High Point State Park), representing a 25% increase in attendance over the previous year.

The shortage of Department personnel was becoming acute, due to the increased use of State parks and forests in both summer and winter: only nine full-time foresters and nine full-time rangers, were charged with the protection, development and public use of 54,603 acres of State Forest land in eight widely separated areas of the State. Yet, in the decade spanning 1929 to 1939, the estimated attendance grew from 10,000 to over 80,000 persons. In 1940, visitation at State Forests reached 115,196, an increase attributed to "the general nation-wide migration to the out-of-doors" as well as to "increased facilities and a better knowledge by the public of what is being provided for its use." In 1939, Stokes State Forest had the largest attendance, estimated at 25,081 visitors; this grew to an estimated 52,066 visitors in 1940. Five permanent and five seasonal employees were available to care for 10,000 visitors on a 1,000-acre park in a single summer day.

The Forest Fire Service's responsibilities had also grown without a commensurate increase in appropriations. Besides enforcing the forest fire laws and extinguishing marsh, brush and woodland fires, the Forest Fire Service furnished the only fire protection for hamlets, villages, cranberry bogs, blueberry plantations, isolated homes and other improved property, whose value was conservatively estimated at \$300,000,000. In 1939, for the first time in New Jersey, three pieces of heavy mobile fire apparatus were used, one assigned to each of the three divisions. These trucks consisted of a 1¹/₂-ton chassis, carrying a 500-gallon water tank and a centrifugal pump attached to the motive power that was capable of pumping 400 gallons of water per minute. Each vehicle carried 5,000 feet of hose, 300 feet of rubber-lined hose, and such auxiliary equipment as nozzles, shovels, knapsack sprayers, first aid kits, buckets, and search lights.

Four new forest fire trucks were assembled at the Forest Fire Service repair shop in 1940. These new units were equipped with a centrifugal pump, driven from the truck crank shaft, a 200-gallon water tank, 1,000 feet of fire hose, and 600 feet of rubber-lined hose, mounted on a live reel. The fire trucks were also outfitted with a two-way radio system, enabling the operator to transmit as well as receive emergency fire messages. These trucks were capable of pumping water over distances up to

10,000 feet from their water source.

The two-way UHF radio system for forest fire-fighting was revamped in 1939, according to specifications of the Federal Communications Commission, resulting in great improvement in the quality and stability of all transmissions. By 1940, the radio network consisted of twenty-three fixed stations and twenty mobile stations. Airplanes were also used to observe all fires burning in excess of 50 acres.

Due to the diversion of manpower to the war effort, and the worst drought on record, the State suffered through an increased number of forest fires in 1941. Severe property loss occurred at Taunton Lakes in Burlington County and the City of Lakewood.

State Forests were acquired as rapidly as appropriations permitted, mainly for the rehabilitation of woodland abused by overcutting and devastating forest fires, particularly in the Coastal Plain forest of South Jersey. Management policies were directed at timber production for commercial purposes, the maintenance of forest cover to protect watersheds and to control erosion, the provision of suitable food and cover to increase wildlife populations, and for the development of public recreational facilities.

For purposes of reforestation, not only within State Forests, but over an estimated one million acres of abandoned farmland, the Department of Conservation and Development established seedling nurseries at Washington Crossing and at Green Bank in 1926, each capable of producing six million evergreen seedlings annually. At these facilities, two nursery superintendents, three permanent nursery helpers, and 30 to 40 laborers, cultivated a total of 32 acres, raising white Pine (30%), Red Pine (20%), Shortleaf Pine (20%), Norway Spruce (10%), Scotch Pine (7%), Pitch Pine (5%), Loblolly Pine (3%), Southern White Cedar (2%), hardwoods (2%), and other species (1%). In 1939, seventeen acres of game food patches were sown, wildlife censuses were taken at Lebanon and Stokes, and technical wildlife work was carried on at Lebanon, Stokes, Penn and Belleplain State Forests.

No funds, however, were appropriated for the purchase of additional State Forest lands between 1931 and 1941. The Legislature passed a law in 1940, allowing municipalities to transfer tax-delinquent lands to the State of New Jersey (with the consent of the Board of Conservation and Development) for use as forest park reservations. As of August 21, 1940, the Board acquired

31,261 acres by this means, including 26,823 acres at Bass River.

The Works Progress Administration carried on extensive landscape work along Steele's Run at Washington Crossing. Permanent structures replaced all foot bridges in the park. A dam and pond on Steele's Run were also completed. The Nelson House was remodeled and reconstructed for a contact and comfort station. A new office building and equipment depot was erected in Sullivan Grove. A playfield, including a baseball diamond, were completely rebuilt. A shelter was built in Green Grove in 1940. Improvements made under the Works Progress Administration project also included: a new pump house at Headquarters; construction of three parking areas and two latrines; construction and placement of 22 new picnic tables of the permanent type and 22 fireplaces; placement of 2,000 feet of rubble gutters; and construction of seven sets of gates. In 1941, the Legislature appropriated \$17,000 to acquire the Neiderer farm, consisting of approximately 75 acres, adjoining Washington Crossing.

Phoebe C. Brisbane, widow of newspaper columnist Arthur Brisbane, offered the "Deserted Village of Allaire" and 700 acres to the State of New Jersey in January 1940. Preserved as a monument to early American industry, nine surviving buildings from James P. Allaire's self-contained company town were restored and opened to the public. The village is noted for its picturesque brick architecture, built between 1827 and 1835, and quaint country church. The one surviving row of married workers' cottages is now a visitor center.

The State Chapter of the Daughters of the American Revolution dedicated the "Penny Pines Project" at Lebanon State Forest on October 15, 1940. This was a nation-wide planting project to celebrate the fiftieth anniversary of the D. A. R. and was intended as a memorial to their deceased members. Through a cooperative agreement, they planted an acre of pine seedlings at Lebanon State Forest each year, for three years.

Attendance at State Parks and Forests reached a record high of 816,000 visitors in 1941. The Works Progress Administration and the Civilian Conservation Corps assisted greatly in creating new facilities to meet the ever-increasing public demand, but their help was suddenly curtailed in 1941, leaving many projects unfinished. More than 60,000 soldiers used State forests for field maneuvers.

As observed in 1942, more and more people each year

were "seeking the solitude of the forest for the relaxation which is so increasingly necessary to health and happiness in this era of high-speed living." The rapid advance of the urban population, the ascendancy of the automobile, and the spread of suburban life, saw "a corresponding decrease of forest areas suited and available for out-of-door recreation." Private owners steadily restricted the use of their properties to themselves and their friends. Furthermore, extensive tracts of New Jersey's forests were exhausted by cutting-over and neglect, becoming waste lands. For so long as the Second World War commanded the nation's attention and resources, little could be done.

Lake Absegami and facilities for recreation were developed in Bass River State Forest in 1942. Six cabins with fireplaces were built alongside the lake. Managed intensively under forestry principles, Bass River also offered many forestry demonstrations to visitors.

Fanny State Park, acquired in 1943, occupies 3,900 acres of the forested high ground lying northwest of Splitrock Reservoir in Morris County.

The Department of Conservation and Development comprised the Division of Forests and Parks, of which the State Forester was chief, and the Division of Geology and Topography, in charge of the State Geologists. The Department also administered the State Museum, the abandoned Morris Canal, and the Delaware and Raritan Canal. The governing Board consisted of eight members, who served four-year terms. The Board appointed a Director, who also served for a term of four years.

Most parts of the Department and Board of Conservation and Development, except the State Museum, were transferred to the Division of Forestry, Geology, Parks and Historic Sites, Department of Conservation, in 1945, including the Historic Sites Commission's functions and properties. Twenty historic sites, either partly or wholly supported by the State, were placed under the Division's administrative jurisdiction and a Bureau of Historic Sites was created for their management and care. In the re-organization of State government following the adoption of the new State Constitution in 1947, "Historic Sites" was dropped from the Division's title. A year later, it became the Division of Planning and Development, Department of Conservation and Economic Development. In 1961, the name was changed to the Division of Resource Development.

Norvin Green State Forest, established in 1946, perpetu-

ates the name of Norvin Green, a grandson of A. S. Hewitt, who donated many acres of his family estate to Ringwood Manor State Park. This State Forest encompasses the wooded Wyanokie Highlands, lying west of the Wanaque Reservoir in Passaic County, including the elevations known as Assinwikim Mountain (literally, “stone house” mountain), Torne Mountain, Carris Hill and Birch Mountain. The property is drained by Blue Mine and Posts Brooks.

The State of New Jersey began contributing annually to the maintenance of the Walt Whitman House and Foundation in 1925. The City of Camden transferred ownership to the State of New Jersey in 1947. The adjacent brick townhouse was purchased by the State in 1951.

Built in 1749 by merchant Samuel Woodruff, Elizabeth’s Boxwood Hall was later home to lawyer Elias Boudinot, who, as President of the Continental Congress in 1783, served as chief executive of the independent United States. It became a State Historic Site in 1941. The State took ownership of Somers Mansion in 1943. The Old Dutch Parsonage was acquired in 1947.

In anticipation of the Spanish-American War, Fort Mott was erected in 1896 and named to honor Major General Gersham Mott, of the New Jersey Volunteers, a Burlington native who served with distinction during the Civil War. Outfitted with a battery of three twelve-inch disappearing rifles, two batteries of two five-inch rifles, two five-inch rapid-fire guns and five Gatling guns, it was originally garrisoned by Battery 1, 4th Artillery, on December 14, 1897. Dropped from active duty in 1922 and abandoned in 1943, the State acquired the property in 1947 and dedicated it as a State Park in 1951.

The State of New Jersey assumed the care and maintenance of the historic Barnegat Lighthouse, built in 1856-1858 under the direction of Lieutenant George Gordon Meade, in 1926. The Legislature created Barnegat Lighthouse State Park on 17 acres in 1951 to preserve this “symbol of the seafaring tradition of New Jersey.”

A. S. Hewitt State Forest encompasses much of Bearfort Mountain, lying on the New York border, between Upper Greenwood and Greenwood Lakes. The first purchase of lands was made in 1951.

Twenty-two hundred acres of sand dunes, beach and native vegetation were purchased in 1953 to form Island Beach State Park in Ocean County. In 1983, the

Legislature specified that Island Beach State Park be preserved, maintained, and improved, so as to perpetuate in its present state a unique recreational resource, highly valued for its topography, flora and fauna. Island Beach is nationally known as a unique biotic resource with over 300 plants identified, including the largest expanses of beach heather in New Jersey.

Eyeing the greatest undeveloped source of ground water in the region, New Jersey purchased the Joseph Wharton Tract, comprising 95,000 acres, for \$3,000,000 in 1954. Wharton had originally acquired lands in the Pine Barrens with a plan to sell water from its aquifer to Philadelphia and Camden. He also experimented with cranberry cultivation, cattle raising and lumbering.

Charles C. Worthington, a millionaire steam pump manufacturer, began to acquire 8,000 acres, covering six miles of Blockade Mountain (including Mount Tammany, the promontory that frames the New Jersey side of the Delaware Water Gap) in 1890. He established a deer park, named Buckwood Park, in February 1892, surrounding 2,000 acres of woodland, including Sunfish Pond, with eleven miles of wire fencing, eight feet high. Interested in the principles of forest management, Worthington was responsible for planting over one hundred thousand trees, mostly evergreens. Worthington leased Buckwood Park to the State Fish and Game Commission in October 1916 for a game preserve. This scenic tract became Worthington State Forest in 1954.

A Water Supply Bond issue in 1958 led to the development of the Spruce Run and Round Valley reservoirs. State Recreation Areas were established at Round Valley in 1968, at Spruce Run in 1974, and at Warren Grove in 1972.

Green Acres Program

Rapid suburban growth after the Second World War placed such a demand upon open space and recreational parks as to exceed the State’s ability to acquire sufficient land for public use and conservation purposes. In January 1961, Governor Robert Meyner proposed funding for a 10-year land acquisition program to double New Jersey’s outdoor recreational and conservation lands. The New Jersey Legislature unanimously endorsed the first Green Acres Bond Act, which voters enthusiastically ratified in the November general election. The first Green Acres Bond provided \$60 million to buy land for parks, natural areas, forests, water supply, fish and wildlife preserves, and other conservation purposes. New Jersey was one of the first states to inaugurate such

an open-space program. Of the total amount, \$40 million was used to purchase State lands, including preservation of access areas to the Atlantic Ocean, protection of the Jersey Palisades in conjunction with the Palisades Interstate Park Commission, and acquisition of the Revolutionary War battlefields at Princeton (1964) and Monmouth (1963). The State of New Jersey also acquired ownership of several historic sites, including Twin Lights (1962), Absecon Lighthouse (1966), and the Proprietary House (1967) in Perth Amboy.

In September 1960, the State of New Jersey purchased a 440-acre tract surrounding Lake Wawayanda for development as a State Park. Wawayanda State Park, site of the Young Men's Christian Association boys' summer camp from 1885 to 1919, includes the old Wawayanda Furnace stack and associated ruins. The first Green Acres Bond Act additionally funded the purchase of 10,556 acres for Wawayanda State Park in 1963.

The first Green Acres Bond Fund also created State parks at Corson's Inlet (1963), Cape May Point (1964), Double Trouble (1964), Liberty in Jersey City (1965), Rancocas (1965), and Allamuchy (1966). Undeveloped park land was acquired at Great Piece Meadows in Essex and Morris Counties (1965), Hawk Island in Burlington County (1966), and Pigeon Swamp in Middlesex County. State forest lands were acquired at Cape May Wetlands (1965), Troy Meadows in Morris County (1966), Bursch Sugar Maple in Warren County (1967), Johnsonburg in Warren County (1967), Strathmere in Cape May County (1967), Osmun Forest in Warren County (1967), Swimming River in Monmouth County (1967), North Brigantine in Atlantic County (1967), and Swan Point in Ocean County (1967).

Natural Lands Management

In 1961, the Legislature vested the Division of Parks, Forestry and Recreation with the responsibility for acquiring and preserving natural areas as a habitat for rare and vanishing species of plant and animal life. Such places possessing their primeval character were to serve as living illustrations of the State's original heritage and as places for scientific study. The Natural Areas Council, consisting of seven members with a demonstrated interest in the preservation of natural lands, were to advise the Commissioner on an over-all program of natural lands acquisition and management. A Natural Areas section was also established within the Division of Parks, Forestry and Recreation.

The Office of Natural Lands Management identifies crit-

ically important natural areas to conserve New Jersey's biological diversity. Its database provides detailed, up-to-date information on rare species and natural communities for use in resource management, environmental impact assessments and for both public and private land protection efforts.

New Jersey's first "natural area," encompassing 800 scenic acres around the Cedar Swamp, north of the High Point Monument, was dedicated in 1965 as the *John Dryden Kuser Memorial Natural Area*.

Parks, Forestry and Recreation

A Division of Parks, Forestry and Recreation was re-established in the Department of Conservation and Economic Development on May 27, 1966. It was authorized to develop, improve, protect, manage and administer all State forests, parks, recreation areas, historic sites, and natural areas. It is to protect all forests, brush lands and marshes from damage by fire, insects and disease, and to promote the use of good forest management principles on all forest lands. The Division also is responsible for the administration of programs for the licensing of certified tree experts, the Bureau of Recreation, historic sites and natural areas management. It is to provide liaison between the Federal and lesser governmental levels in matters pertaining to forestry, conservation, recreation, historic sites and other appropriate fields. The Department commissioner was empowered to create and organize such bureaus as may be appropriate for the Division's efficient and effective administration.

Historical Interpretation

In 1966, the Legislature vested the Division of Parks, Forestry and Recreation with the responsibility to interpret New Jersey's heritage through its historic sites and was required to:

- formulate comprehensive policies for the preservation, restoration and public presentation of all historic sites within the State;
- do the necessary research, prepare exhibits and furnish services required for a proper and adequate interpretive program;
- prepare and disseminate informational materials to inform the public about New Jersey's historic sites;
- consult and co-ordinate with groups and organi-

zations in order to advance the purposes of the historic sites program.

On June 21, 1967, an 11-member Historic Sites Council was established within the Division of Parks, Forestry and Recreation to consult with and advise the Department Commissioner and the Division Director. It was authorized to recommend programs and policies for: (1) the acquisition, development, use, improvement and extension of historic sites; (2) the development of a broad historic sites preservation program on a statewide and local basis; and (3) the identification, authentication, protection, preservation, conservation, restoration and management of all historic sites within the State.

The New Jersey Historic Trust was also established in 1967 and empowered to accept gifts, legacies, bequests and endowments and to hold real and personal property of historic, aesthetic or cultural significance, by gift, purchase, or devise. It was further ordered to preserve and administer such cultural properties, and to acquire property adjacent thereto, if deemed necessary for the proper use and administration of historic, aesthetic or cultural property. Its board of seventeen members includes the membership of the Historic Sites Council, augmented by a member of the State House Commission, the State Treasurer, the Commissioner of the Department of Conservation and Economic Development (now the DEP), the Chairman of the Parks, Forestry, and Recreation Council, the State Librarian and the Commissioner of the Department of Education (or their designated representatives). The New Jersey Natural Lands Trust was formed in 1968

The Department of Conservation and Economic Development was charged with the seemingly conflicting goals of conserving natural resources and developing their economic potential. *The New Jersey Almanac* of 1964 observed that —

“... the Department operates on the philosophy that ‘conservation’ means ‘wise use’ and not merely ‘preservation.’ A state as small as New Jersey cannot afford to set aside a hundred-square-mile tract as a forest preserve. With a limited amount of area and a growing population, each natural resource must be made to serve as many purposes as possible.”

Organizationally, the Bureau of Forestry managed the State forests, growing trees for reforestation projects at the nursery in Washington Crossing State Park and stationing fire wardens throughout the State. The Bureau of

Parks and Recreation maintained and operated the State Forests, Parks, and Historic Sites.

Department of Environmental Protection

On Earth Day, April 22, 1970, Governor Cahill established the new Department of Environmental Protection Chapter 33, L. 1970), bringing together the many agencies and jurisdictions of State government involved in the conservation, restoration and enhancement of New Jersey’s physical environment. The Division of Parks, Forestry and Recreation joined the new Department of Environmental Protection and was designated the Division of Parks and Forestry in 1971.

The New Jersey Register of Historic Places was established in the Division of Parks and Forestry in 1970 to create and maintain a permanent record of areas, sites, structures and objects within New Jersey that are determined to have significant historical, archeological, architectural or cultural value. With the advice and recommendations of the Historic Sites Council, the Commissioner of the Department of Environmental Protection establishes criteria for receiving and processing nominations and approvals, both publicly and privately owned, for inclusion on the New Jersey Register.

Voters approved a second Green Acres Bond issue, totaling \$70 million, in November 1971. Of this amount, \$40 million was provided for direct State acquisitions of land for State Parks, Forests and Wildlife Management Areas. Purchases included lands fronting the Hudson River and the Statue of Liberty, acquisitions along the Appalachian Trail, and continued purchases of South Jersey pine lands.

The Commissioner of the Department of Environmental Protection was authorized in 1973 to acquire easements or controlled-use agreements for sections of the Appalachian Trail, lying within New Jersey, which were not in public ownership, and to construct suitable shelters and other facilities for hikers’ use. He was to act in consultation with the United States Secretary of the Interior and the Appalachian Trail Conference.

Another Green Acres Bond was approved by public referendum in 1974. Besides land banking for conservation and recreational purposes, this bond issue was the first to fund recreational development, most notably at the Spruce Run and Round Valley reservoirs, and at Liberty State Park. The Green Acres Development Program built the Environmental Center at Liberty State Park, the Visitor Centers at Washington Crossing (1976) and

Monmouth Battlefield (1978), and at Batsto in Wharton State Forest. It also funded construction of parking lots, roadways, bikeways, trails, water and sewage systems, bathing facilities, boat launches, park offices and maintenance buildings, dam repairs, comfort stations, and historic preservation projects.

The New Jersey Trails System Act of 1974 (L. 1974, c. 159) established a State trails system consisting of scenic, recreational and connecting (or side trails) “in order to provide for the ever-increasing outdoor recreation needs of an expanding population, and in order to promote public access to, travel within, and enjoyment and appreciation of the outdoor, natural and remote areas of this State ...” The Legislature authorized the institution of a Statewide system of trails “both in natural and scenic areas of New Jersey, and in and near the urban areas of this State.”

Scenic trails were to be “extended trails so located as to provide maximum potential for the appreciation of natural areas and for the conservation and enjoyment of the significant scenic, historic, natural, ecological, geological, or cultural qualities of the areas through which such trails may pass.” These trails are limited exclusively to foot use, except that use by horses or non-motorized bicycles may be permitted on segments of scenic trails where deemed appropriate. State recreation trails provide a variety of outdoor recreation uses in or reasonably accessible to urban areas. Connecting or side trails provide additional points of public access to, or connections between, State scenic or recreation trails.

The State of New Jersey took possession of the historic Delaware and Raritan Canal and its feeder in 1934, placing it in the custody of the Department of Conservation and Development. The Department and the Delaware and Raritan Canal Commission made a joint report to the Legislature, recommending that the canal be made available for an industrial water supply, particularly in Somerville, Bound Brook, and New Brunswick, and for recreational purposes. The Canal was therefore assigned to the Division of Water Resources in the Department of Conservation and Development.

Recognizing the Delaware and Raritan canal as a vital source of water supply, possessing historic, ecological, and recreational value to the citizens of New Jersey, the Legislature established the Delaware and Raritan State Park and created a nine-member Delaware and Raritan Canal Commission in 1974.

The Green Acres Bond of 1978 authorized \$200 million

for the redevelopment of urban waterfront parks, for the construction of environmental education centers, and for providing open space and recreational opportunities in urban areas, including playgrounds, athletic fields, and swimming pools. Funding from this bond issue built the environmental education centers at Liberty State Park and at the Pequest Fish Hatchery.

Development Program projects from the 1978 Green Acres Bond Fund included construction of the seawall and restoration of the Central Railroad Terminal at Liberty State Park, where \$29,465,000 was expended on improvements (not including Federal funds). Historic restorations were undertaken at Allaire, Twin Lights, Walt Whitman House, Skylands Manor, and the Trenton Battle Monument. A new office and nature center were built at Cheesequake State Park. A new visitor center was built at Allaire, where the Enameling Furnace and Carriage House were restored, and where the Mansion and General Store were renovated. A new Regional Forest Fire office and maintenance building was erected at Lebanon State Forest. New maintenance facilities were also built or expanded at High Point, Island Beach, Parvin, Spring Meadow Golf Course, and Cheesequake.

The New Jersey Legislature required the designation of 212 acres in West Milford Township, recently acquired for inclusion in Wawayanda State Park and commonly known as the “Ferber plot,” as a wildlife sanctuary for the protection of animals inhabiting the property and for the issuance of permits allowing the release of orphaned, injured or displaced animals onto its grounds.

A Green Trust revolving fund for low-interest loans was the centerpiece of the 1983 Green Acres Bond, which totaled \$135 million. Of this amount, \$52 million was used for State acquisitions or the development of park facilities. Emphasis was placed on linking open-space projects along stream corridors and ridge crests to form environmentally sensitive areas and recreationally usable units. A new park office was designed and built at Swartswood State Park. The Green Acres Bond Act of 1987 provided an additional \$35 million for the Green Trust.

The Division of Parks and Forestry expended a total of \$116,014,998 from the 1974, 1978 and 1983 Green Acres Bond funds. Approximately 44%, or \$50.9 million, of this amount was expended at Liberty State Park. Long Pond Ironworks State Park, comprising 2,590 acres in Ringwood Boro and West Milford Township, Passaic County, was established in 1987.

Voters approved \$230 million in the Green Acres Bond Act of 1989, including \$80 million in funding for State acquisition and development. The 1992 Green Acres Bond provided \$200 million, including \$80 million for State acquisition and development. \$3.1 million in 1992 Green Acres funds purchased the 288-acre Belle Terre Farm, where some of the fiercest hand-to-hand fighting occurred on June 28, 1778, as an addition to the 1,520-acre Monmouth Battlefield State Park.

For the ninth consecutive time since 1961, New Jersey voters approved a statewide Green Acres Bond on November 7, 1995. Completing her third annual bike tour at Island Beach State Park, Governor Christie Whitman signed legislation in August 1996 appropriating more than \$173 million dollars from the Green Acres, Farmland, Historic Preservation and Blue Acres Act (P. L. 1995, c. 204). This legislation provided \$65 million to add 24,000 acres to the State Parks, Forests, and Wildlife Management Areas. Green Acres funds provided additional land acquisitions for Parvin, Allaire, Long Pond Ironworks and Pigeon Swamp State Parks, and helped preserve historically significant sites such as Monmouth Battlefield, Princeton Battlefield, Washington Crossing State Park, and Twin Lights State Historic Site. Recreational development in Liberty State Park received \$10 million in Green Acres funding.

Kittatinny Valley State Park was established in 1994 on the lands of the Aeroflex Corporation, fronting the shores of Aeroflex Lake (formerly Slaters Lake) in Andover, Sussex County. Reaching depths of 100 feet, Aeroflex Lake is one of New Jersey's deepest lakes. The setting is transitional between the gneiss, limestone and slate, varying between wooded limestone ridges and associated wetlands, which display a rich diversity of flora and fauna.

These scenic grounds had been home to the Y. M. C. A. Jersey Boys' Camp from 1919 through 1954, when neighbor Fred Hussey acquired the property for his corporate headquarters. In 1957, a 300-acre alfalfa field bordering Gardner's Pond was paved to create a 2,004-foot runway. Airport facilities included six hangers and an Advisory Tower. Upon its completion, Aeroflex became the first helicopter operator in the State of New Jersey.

The Historic New Bridge Landing Park Commission was established in 1995 (PL. 1995, Chapter 260) to coordinate and implement federal, State, county, municipal and private development policies and other activities incidental to the preservation, maintenance, restoration

and interpretation of historic buildings, structures, sites and features of Historic New Bridge Landing, so as to develop and promote their optimal educational and recreational benefit to the public. The Commission provides an intercommunicative forum to inform and coordinate decisions made by diverse public and private entities having ownership of land, buildings, structures or roadways within the Commission's jurisdiction. Its membership includes a representative of the County of Bergen, a representative of the Blauvelt-Demarest Foundation, a representative of the Borough of River Edge, a representative of the Borough of New Milford, two representatives of the Bergen County Historical Society, and two representatives of the Township of Teaneck. The Director of the Division of Parks and Forestry is the ninth member.

A purchase of 488 acres on Stow Creek in Cumberland County in 2000 comprises a recent addition to our State Parks.

Statement of Purpose

As stewards of the land, of its natural diversity and its splendor, of its scenic wonders and historic places, we shall develop and implement an inclusive interpretive program to provide abundant opportunities for people to connect with the historic and natural resources in its care, using heritage interpretation to create meaningful, memorable experiences for the broadest possible audience.

Statement of Significance

In so far as heritage interpretation builds a high regard for the lasting benefits of our historic and natural resources, it plays an indispensable role in sustaining both a personal and civic ethic of stewardship by cultivating a broad base of public understanding and support.

An Overview of Heritage Tourism

Since New Jersey has attracted visitors for centuries, wayside hospitality is a long-standing tradition and industry. As early as 1745, curiosity-seekers went out of their way to admire New Jersey's natural wonders, most notably, the Great Falls of the Passaic River, the mineral springs on Schooleys Mountain, the Delaware Water Gap, the Hudson Palisades, and the Neversink

Highlands. The Jersey shore, particularly Long Branch, grew as a family vacation destination after 1820, attracting increasing numbers of New Yorkers and Philadelphians after the opening of the Camden & Amboy Railroad in 1834. Famed ornithologist John James Audubon spent several weeks studying the bird life at Great Egg Harbor in 1829, a place named for its plenitude of wild fowl eggs.

The Marquis de Lafayette, the last living Major-General of the American Revolution, gave heritage tourism a big boost with his return to the United States in 1824-25 as part of the commemorative events leading up to the celebration of the Fiftieth Anniversary of American Independence. He landed in Manhattan on August 16, 1824, and first toured New England, stopping in Boston to lay the cornerstone of the Bunker Hill Monument. He was at Yorktown, Virginia, on October 19, 1824, for the forty-third anniversary of the Franco-American victory. On July 25, 1825, General Lafayette visited the grave of General Enoch Poor in Hackensack, and then proceeded to Paterson. He dined at Morristown that same evening and departed for Newark the following morning. As the Nation's Guest, Lafayette visited President John Quincy Adams at the White House on September 7, 1825, and left for France, taking a final gaze at Mount Vernon as he sailed out the Potomac River.

In 1844, John W. Barber and Henry Howe popularized many picturesque spots and historical incidents in their *Historical Collections of the State of New Jersey*. John Benson Lossing further piqued curiosity in many Revolutionary War sites, including those in New Jersey, through his descriptions and sketches included in *The Pictorial Field-Book of the Revolution*, published in 1855. A developing genre of travelogues, nature and travel

guides, and county histories, fueled public interest in many scenic and historical destinations throughout the State.

The numbers of vacationers seeking an "Arcadian summer" grew rapidly between 1860 and 1875 in response to urban industrialization and the spread of railroads. By 1875, Long Branch boasted many elegant beach cottages and hotels sufficient to accommodate 15,000 guests. Cape May also developed into a busy



Long Branch, *Industry in America*, 1881

watering-place, drawing the summer society of Philadelphia, Baltimore and Washington. Atlantic City began its rise as a seaside resort of wooden hotels and cottages. Lakes in the hill country also developed into popular summer destinations. A special correspondent for the London *Times* described New Jersey in 1887 as one of the most prosperous American states — a vibrant mosaic of industrial cities, commuter suburbs, market gardens, dairy farms, and seaside and mountain resorts.

At the turn of the twentieth century, railroad corporations began to invest in lake resorts, such as Cranberry Lake and Bertrands Island on Lake Hopatcong. Lakeside and mountaintop farms took in city vacationers for income. Wealthy industrialists and financiers soon turned vast tracts of scenic landscapes and popular lakes into private estates, prohibiting their public use. Responding to a growing public outcry, the State of New Jersey acquired Swartswood Lake in 1915 for public use as picnic and pleasure grounds. It also began to develop its forest reservations as public outing grounds.

Important commemorative anniversaries typically capture the public imagination and fuel interest in our historic sites. The American Centennial of 1876 left a lasting impression through the production of historical atlases, monuments, memorabilia, and county histories. The State of New Jersey acquired and developed several significant historic sites between celebrations of the Sesquicentennial of American Independence in 1926 and the Washington Bicentennial in 1932. New Jersey's Tercentenary in 1964 also contributed greatly to the promotion and safekeeping of our State's vibrant heritage, most notably, through the Green Acres acquisition of Princeton and Monmouth Battlefields, and several historic sites. The American Bicentennial of 1976 produced another welcome swell of tourism, but one with lasting benefits. It gave impetus to a modern scientific and increasingly professional approach to both historical preservation and interpretation. There has since been a more demanding search for authenticity and a widening field of vision that inevitably favors historical inclusiveness.

Tourism expenditures in New Jersey grew by almost \$5 billion between 1990 and 1995. According to 1995 figures, the tourism industry supported more than 576,000 jobs and generated \$4 billion in direct and indirect tax revenues annually. Ocean and Monmouth Counties led the State in total travel expenditures by tourists in 1995, together spending over \$3 billion in travel expenditures.

Approaching the first century mark in its organizational

life (1903-2003), the Division of Parks and Forestry has renewed its commitment to the fundamental public trust which gives it purpose, by the adoption of the Stewardship ethic in its mission statement. Heritage interpretation will build public knowledge and appreciation of the great treasury of historical and natural resources in our stewardship, and hopefully the will to fully protect and to caringly enjoy them.

Connecting Resource and Audience

Due to a worsening budget crisis, the State of Tennessee closed 14 state parks in December 2001 and cut hours at its remaining 37 parks to save money. Responding to considerable public ire, Kim Olson, a spokeswoman for the Tennessee Department of Environment and Conservation, noted that: "State parks aren't just a government service, they are an emotional experience." ("Budget troubles force Tennessee to shut 14 parks," *The Record*, December 30, 2001)

Heritage interpretation authenticates a responsive visitor's connection to some storied place, often striking a sympathetic chord, basic to our common humanity. This places a great responsibility on the interpreter, requiring careful preparation, professional confidence, and a developing sense of both the resource and its audience.

There are cross-currents in this process that demand the interpreter's awareness and attention. For even as heritage resources emotionally and intellectually impact their audience, that audience impacts the resource, both through visitors' physical presence and through the changing touch of their curiosities and interests. It goes without saying that significant historic and natural resources should be preserved for their inherent value, regardless of their popularity as tourist attractions. In fact, high levels of visitation can potentially degrade fragile resources. But effective heritage interpretation not only "makes" the visitors' experience, it can build a sense of responsibility for resource preservation by imparting appreciation of its significance. The intermediary role of the interpreter therefore is crucial both to stewardship of the resource and to enhancing the visitor's perception, evaluation and experience of it.

The results of a public opinion survey, released in May 2001 as part of the American Association of Museums' ongoing Communications Initiative, show that "among a wide range of information sources, museums are far and away the most trusted source of objective information." Indeed, the survey found that Americans of every demo-

graphic group, including gender, age, and education, as well as in every area of the country, believe that museums are a trustworthy source of objective information by at least 80% or more, considering them more reliable than television, radio, newspapers, books, and the Internet.

According to the results of this nationwide poll, the public's trust in museums is based on three themes: they present history, they are research-oriented, and they deal in facts. People are almost evenly divided on whether museums are trustworthy because they give visitors the opportunity to interact first-hand with objects, past events and history and/or because they offer independent and objective information. The *Survey on Trust in Museums* also found that a substantial majority of Americans perceive museums to be an important educational resource. One-third of Americans reported that they had visited an art museum, history museum, aquarium, zoo, botanical garden, or science-and-technology center within the past six months.

Heritage tourism has become one of New Jersey's most profitable industries, yielding substantial benefits for the State's economy as a whole, as well as for the specific host communities of popular destinations. According to the *Spring 1996 Travelometer Survey*, conducted by the U.S. Travel Data Center for the Travel Industry Association of America, 45% percent of American adults who planned a pleasure trip in the spring of 1996 said that they intended to visit a historic site while on vacation; 41% of leisure travelers also planned to visit a cultural site. From their Sustaining Museums Work Group and from other surveys, studies, and articles, the American Association of Museums compiled the following *Museum Facts* relative to economic impact and visitor statistics:

- A 1996 survey shows that museums rank in the top three family vacation destinations.
- A 1999 study showed that Americans from all income and education ranges visit and value museums.
- Tourists who visit museums spend nearly twice as much on their travel as those who do not.
- For every 50¢ of public money invested, museums generate \$1 in private support.
- Of Americans age 18 and older, one in 480 is a museum volunteer.

A park exists for many purposes. It is a place in which to meet people or to enable one to get away from people. It is a place for rest or exercise, for relaxation or stimulation as the individual need demands. It is a place for play or study. But its great underlying function is to be different, to get the indoor person out, to put the city dweller away from buildings and the sights and sounds, the strain and stress of our intense civilization, to offer the calm of natural conditions and the beauty of natural environment to modern mankind.

Charles P. Wilber, State Forester and Chief,
Division of Forests and Parks, New Jersey State Parks,
1932.

Studying the economic impacts of heritage tourism in partnership with the New Jersey Historic Trust and the Center for Urban Policy Research at Rutgers University, the Task Force on New Jersey History found that, between 1993 and 1995, an average 4,982,809 heritage day-trippers annually came to New Jersey, spending on average \$56 per adult, and thus creating a total annual expenditure for this group alone of \$276,591,487. Visitors who traveled to New Jersey primarily to visit historic sites tended to stay longer and to travel in larger groups than other overnight tourists; they also tend to be repeat visitors. From 1993 to 1995, an average of 657,761 overnight heritage tourists visited New Jersey annually, spending about \$101 per adult on average, and generating a total annual outlay of \$66,234,253. In total, the study concluded that New Jersey's heritage travelers — primary and partial, overnighter and day-tripper — pumped \$432,104,416 annually into the State's economy.

David Listokin, a professor at the Center for Urban Policy Research at Rutgers University, believes that aging baby-boomers "have greater interest than their parents in things historic and in preservation" and may account for the rising attendance at historic sites. Motor-coach travelers, who are primarily adults aged 65 and older, form another significant audience. In fact, 68% of historic-site administrators named motor-coach travelers as their primary growth market; compared with 50% who named student groups; 46% who named families; and 45% who named seniors. Professor Listokin points out that "communities need to develop a critical mass of activities around historic sites, including services like restaurants and shops." "And because the public is sophisticated and knowledgeable," he further notes, "they have to be sold on what is particularly unique about the site." This act of "salesmanship" pinpoints the central role that heritage interpretation and interpretive plan-

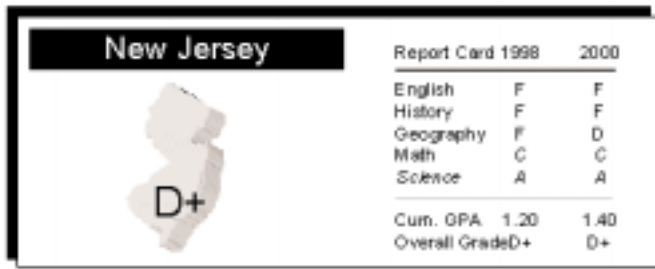
ning play in heritage tourism.

Heritage interpretation can greatly expand the classroom experience in inimitable ways. School trips have long constituted an important and somewhat distinct audience for historic sites and nature study. To evaluate the effectiveness of current classroom instruction, the Task Force on New Jersey History developed a 15-question, multiple-choice test which was administered to 371 eleventh and twelfth graders enrolled in six public and private schools throughout the State. Few of the students who took the test were able to answer correctly half the questions. Of the 371 students who took the examination, 326 were unable to arrange in chronological order some of the major chapters in the nation's military history from the American Revolution to World War II. Over 50% could not identify the Revolution as the Nation's first military conflict and 70% did not know that the Battle of Monmouth was fought in the eighteenth century. *A Heritage Reclaimed: The Report of the Task Force on New Jersey History* (June 1997) concluded that: "The performance of students of all backgrounds and regions revealed a distressingly low level of knowledge of the most basic information about New Jersey history."

The Task Force survey found that state history is usually taught in the fourth grade and within the context of required U.S. history courses on the high school level. When New Jersey history is taught in U.S. history courses on the high school level, teachers use it to illustrate such major topics as early European settlement, the American Revolution, industrialization, immigration, political reform, and labor history. The most prominent state-specific topics that teachers explore with their students include local history, colonial and Revolutionary War history, immigration, New Jersey inventors, Woodrow Wilson and the Progressive reform movement, women's history, and African-American history.

Another Task Force survey revealed that most social studies teachers lack college training in New Jersey history: 81% of teachers who responded to the survey claimed that they had never taken a New Jersey history course and only 34% of the teachers indicated that they attend statewide social studies or history programs specifically designed for teachers. Several teachers complained that they would have wanted to be consulted about the contents and methodology of the Department of Education's core curriculum before its implementation. Again, the Task Force on New Jersey History concluded that: "Far too many students are unaware of how New Jersey continues to play a role in the development

of American history. Far too many teachers are poorly prepared.”



New Jersey		Report Card 1998	2000
English	F	F	
History	F	F	
Geography	F	D	
Math	C	C	
Science	A	A	
Cum. GPA	1.20	1.40	
Overall Grade	D+	D+	

Graphic from *The State of State Standards 2000*, Thomas B. Fordham Foundation (January 2000)

The ineffectiveness of the core curriculum as presently conceived is part of the difficulty. According to *The State of State Standards 2000*, published by the Thomas B. Fordham Foundation (January 2000), nine states had revised their history standards since 1998 but showed no improvement in grades. Five of these States continued to earn failing grades (namely, Illinois, New Jersey, Washington, Wisconsin, and Vermont). The New Jersey curriculum standards received an over-all grade of D+ and the State ranked 36th in the nation. The review gave New Jersey's history standards a grade of F in 1998 and a grade of F in January 2000. The following are excerpts from the comments made on the History and Geography Standards in the Fordham Foundation review:

History

“The New Jersey Social Studies Curriculum Framework is a massive document, the largest such in the nation, and thereby provides a grand example of confusing quality with quantity. To be sure the words “United States/New Jersey History” and “World History” appear prominently in the text, but readers should not be deceived; as history standards go, we’ve seen none worse. They’re full of dogma, politics, and ideology, and all but devoid of balanced content. They and their illustrative lessons exemplify all that is bad in historical research.”

“It should be noted that New Jersey officials are quick to claim that the New Jersey standards are not standards required for all children. Rather, the idea is that while the state standards may be used, local schools will determine their own standards. Such revelations only drive the point home: state history standards for New Jersey remain to be written.”

Geography

“New Jersey receives a D with a score of 50, an increase of 13 points since 1998. This lengthy framework is designed to help schools realign the social-studies curriculum with state standards published in 1996. ... While well intentioned, the document is arranged in a most cumbersome manner that will prove difficult for lay persons to utilize.”

The significance of these two reviews of New Jersey's Social Studies curriculum framework is telling, if not enlightening. It may well be that New Jersey's heritage interpreters are the most competent and effective historical educators available to our children and that our historic sites possess the best and most vivid curriculum for repairing the loss of cultural knowledge in general and of local history in particular. As the American Association of Museums noted in *Excellence and Equity* (1992), “The public dimension of museums leads them to perform the public service of education — a term that in its broadest sense includes exploration, study, observation, critical thinking, contemplation, and dialogue.”

The Division of Parks and Forestry is the largest administrator of historic house museums and restored museum villages in the State of New Jersey and maintains one of the largest groups of state historic sites in the country.

The fifty-seven State Historic Sites, the cultural landscapes surrounding them, and the collections of historic objects displayed within them, are all powerful, but underutilized, teaching tools and educational resources. Efforts should be made to work with educators and to integrate the State Historic Sites' interpretive programs into the regular curriculum of schools in the region. The Division's sites should be used as laboratories and field schools for teaching history in New Jersey.

Similarly, the knowledge and professional expertise of the staff at the State Historic Sites includes history, historical geography, museum curatorship, education, research, public relations and site administration. This professional expertise should be utilized and supported in order to expand the historic sites' potential for excellent interpretive programming and resource protection.

By their very presence and availability, historic sites and cultural landscapes strikingly evidence chronology and the formative influence of place (including cultural and

natural contexts) on historic personalities, occupations, and events. If properly used in an educational context, historic resources not only vivify site-specific associations with historically significant persons, places, and events, but they offer insight into professional historical methods and the open scholarly dialogue that continually refines our understanding of the past and of its inescapable influence upon us.

History has become a lost art in our schools, replaced by concept-based social studies. While History develops a truly dimensional sense of time and place, relating individuals to their cultural and natural surroundings, social studies tend to emphasize categorical ideation (e. g., the Presidency, free speech, etc.) and a proclivity for second-hand ideological conditioning. Whereas a social studies curriculum tends to disclose facts that prove an opinion, historical interpretation tends to reveal facts from which opinions may be formed.

We must continually remind ourselves that heritage interpretation is resource-based and experientially connective to core values. Heritage interpretation may also be usefully curriculum-related, but it is not curriculum-based — it does not subject a captive audience to developmental intellectual exercises and assessments. Instead, heritage interpretation opens a captivated audience to the intellectual and emotional stimulus of observation and response.

By its very subject matter and methodologies, science-based education is susceptible to cumulative lesson plans and objective assessments, teaching the learning value of observation and of repeatable experiments with verifiable results. Programmatic content can be directed to specific learning objectives matching the New Jersey Core Curriculum Content Standards. Environmental education is also interdisciplinary — for example, Standard 5.12 in Science and Standard 6.9 in Social Studies relate to environmental education.

The Environmental Education Act of 1971 provided for the promotion, establishment and operation of school district environmental education programs and a network of regional environmental education centers to conduct curriculum research and development under the direction of the Department of Education. The Environmental Education Council disbanded in 1973 after unsuccessfully seeking grant moneys to maintain two salaried staff positions.

Governor Thomas Kean created the Environmental Education Commission by signing Executive Order 205

in April 1989. The Commission's 1990 report, presented to Governor Jim Florio, identified goals for environmental literacy and presented a number of actions that would help achieve these goals. The Environmental Education Commission reconvened in January 1991 and completed its Proposed Plan of Action in December 1992. After a public review period and three regional public hearings, the *Environmental Education in New Jersey: A Plan of Action* was adopted in April 1993.

Similar in many ways to the Federal program of the Office of Environmental Education in the United States Environmental Protection Agency, the State plan calls for harnessing resources and establishing clearinghouses in order to promote many outstanding programs that currently exist, and to create incentives for the design, demonstration or dissemination of model curricula, educational materials and training programs for elementary and secondary students.

The Legislature passed a new act in 1996, approving the New Jersey Environmental Education Commission, establishing the Environmental Education Fund, and creating the Interagency Environmental Education Work Group to support implementation of the environmental education action plan. State educators established core curriculum standards for environmental education for kindergarten through twelfth grade in 1996.

The New Jersey Environmental Education Commission's *Plan of Action* recommends that the New Jersey Department of Environmental Protection pursue its mission of environmental protection by providing teacher enrichment opportunities and technical assistance, assisting with the development of classroom materials and resources, and providing projects, contests, speakers, events, internships, apprenticeships, awards and grants. The Department was also to provide natural and historical interpretation and natural resource education, volunteer and training programs, and recreational opportunities. It was asked to open communication with all autonomous units of government, facilities, institutions, religious affiliations, organizations and individuals that conduct environmental education through conferences, exhibits, meetings, co-sponsored projects and publications. The *Plan* also recommends that the Department incorporate the guiding principles, knowledge, attitudes, values, skills and behaviors into all planning and program initiatives, as well as to maintain regular communications through the Inter-agency Work Group and the Environmental Education Network. It made the following three recommendations pertaining to the Department of Environmental Protection:

Designate department staff to participate in the Inter-agency Work Group and communicate Commission and Inter-agency Work Group activities to all interested employees and programs.

Work with the Department of Education and other state agencies to provide technical assistance to school districts implementing or improving environmental education programs.

Foster student and citizen involvement with environmental protection and resource management.

New Jersey Project Learning Tree is designed to promote environmental awareness in fulfillment of the goals of the *New Jersey Environmental Education Plan of Action*. Project Learning Tree is an activity-oriented, interactive curriculum of fun learning that enables teachers and students to gain an awareness and knowledge of their natural environment and their effect upon it. The Stewardship Action Program provides and encourages stewardship opportunities for students and teachers. The New Jersey Forest Service recognizes participating schools as New Jersey Tree Schools.

Through Project Learning Tree, teachers receive a free, ready-to-use guide and participate in a creative hands-on workshop endorsed by the New Jersey Education Association. Learning to explore their natural environment, they also learn how to develop and use outdoor classrooms, discovering more than 90 activities for all disciplines and learning styles that correlate with core-curriculum content standards. On the other side of the equation, students explore natural-resource concepts and systems in order to develop a deeper understanding and appreciation of the natural world. Most importantly, *they learn how to think, not what to think*.

Project Learning Tree provides a comprehensive activity guide suitable for pre-kindergarten through the eighth grade and a series of modules, designed for high school students, that use case studies to examine critical environmental issues. Project Learning Tree Trunks, containing resources, props, tree-guides, and more, are also available for classroom use.

While Project Learning Tree's primary target audience is preschool through twelfth-grade level teachers, its usefulness is not limited to the formal-education setting. Museum educators, scout leaders, 4-H members, natu-

ralists and other youth leaders find these materials to be a valuable instruction resource. Project Learning Tree works in rural, suburban and urban settings. Whether your learning environment is located in a forest or in an urban community, Project Learning Tree offers something for everyone.

The New Jersey Forest Stewardship Program provides technical advice and financial assistance (Stewardship Incentive Program) to assist private woodland owners and farmers, wildlife enthusiasts, watershed associations, hunt clubs, scouting organizations, private schools and various other private organizations and individuals, in understanding the values and practices of scientific forest management. This program is designed to help protect and improve soils and water, enhance wildlife habitat, create recreational opportunities, maintain aesthetics, protect endangered species, and improve timber and wood product potential, while ensuring the forest's capacity for self-renewal. The State Forest Service administers the New Jersey Forest Stewardship Program. Participating agencies and individuals include: the Soil Conservation Service (USDA); the New Jersey Division of Fish, Game and Wildlife (NJDEP); the United States Fish and Wildlife Service; the Agricultural, Stabilization and Conservation Service (USDA); as well as professional resource management consultants.

The New Jersey Watershed Stewards Program, a one-time event, held in 1998, provided opportunities for students to coordinate and organize an environmental stewards project in their watershed community. The program centered around a weekend leadership institute, held in March, where high school students formed a Watershed Stewards Team to learn leadership skills, to explore watershed issues and to interact with other students.

The key component to the Stewards Program was that each team had to use their leadership skills to coordinate an environmental service project, recruiting volunteers, developing and coordinating publicity, providing food and tools, and making presentations to their school boards and other community groups. In 2000, the New Jersey Division of Parks and Forestry's Community Stewardship Project funded tree plantings at Liberty State Park, Ramsey Golf Course and the New Jersey Audubon Society's Plainsboro Preserve.

The New Jersey Division of Fish and Wildlife sponsors Project WILD and Aquatic WILD. The Project WILD program is based on the premise that students and teachers have a vital interest about the earth as a home

for people and wildlife. The Project WILD guide provides hands-on, inquiry-based activities that are easily integrated into the existing curriculum. Project WET (Water Education for Teachers) provides an activity guide with lessons and activities that engage students in learning about the importance of water resources.

The Alliance for New Jersey Environmental Education (ANJEE), established in 1985, was instrumental in the development and implementation of *Environmental Education in New Jersey: A Plan of Action*, and in passing New Jersey's Environmental Education Act (PL 1995, c. 409). ANJEE is an organization of dedicated individuals who devote time, energy and resources to facilitate the advancement of environmental education. Members include educators and students from public and private schools, State and community colleges and universities, nature centers, museums, zoos, corporations, civic groups, youth groups, governmental agencies and environmental groups. The New Jersey Coalition for School Yard Habitats, the Watershed Partnership for New Jersey, and the New Jersey Natural Resource Education Cooperative are all ANJEE affiliate organizations.

The Alliance provides opportunities for networking and assistance for utilizing environmental education to meet New Jersey Core Curriculum Content Standards and progress indicators. Its sponsors an annual Statewide Environmental Education Conference and professional development workshops and events.

Addressing Visitor Expectations and Experiences

To be successful, interpretive planning and performance must address all five phases of the visitor experience: anticipation, travel, participation, travel and recall.

Thoughtful preparation must be given to shaping the content and direction of visitors' multifaceted expectations and experiences, whether they come alone, as families, in closely or loosely knit groups, and with either a particularly focussed interest, a general curiosity, or even indifference. Creative flexibility is critical in all interpretive approaches and we must learn to always think about, and respond to, the resource as if it were *our* first encounter.

With school-age children, it is especially important not to place such tightly structured demands upon their experience of the resource that it is indistinguishable from their classroom or homework routine — there is and should be a difference. Children with clipboards and

a predetermined set of questions will focus on little else. A proper balance leaves some opportunity for their curiosity to engage the resource as they find it; not to wander aimlessly, but, with careful orientation, to attach to whatever holds a particular fascination for them, regardless of how or whether it directly relates to a lesson-plan. Interpreters should try to validate curiosity, no matter how timidly expressed, by relating that they, through their own learning, have satisfied the same curiosity. Within reason, let the visitor decide what is important.

The Growing Importance of Heritage Interpretation.

Addressing projected visitor trends in the Northeastern United States, a recent study (August 2001), conducted by Pennsylvania State University for the National Park Service, notes that the programmatic and experiential aspects of park visitation "will become increasingly important in visitor satisfaction and the creation of memorable experiences will become the most important variable in determining the level of visitor satisfaction." In particular, "Interpretation will become more important. It will need more diverse, yet specifically targeted, interpretive formats for both domestic and international have and have not visitors." (*The Northern United States in the Next Two Decades — Implications for the Northeast Region of the National Park Service*, by Geoffrey Godbey, Gordon DeJong, Vinod Sasidharan, Careen Yarnal, The Pennsylvania State University, August 2001.)

Projections on visitation patterns in the northeastern United States over the coming two decades indicate that visitors will increasingly be "time-conscious." Parks and historic sites will have to accommodate visitors making shorter stays without leaving them feeling rushed or short-changed. In response, it will be important not to lower the level of interpretation, but to plan interpretive activities that cover less territory or take less time to complete.

The August 2001 study also describes a graying population, noting that senior citizens have "central tendencies associated with old age, which will require increased attention." Of greatest interest in meeting visitor-experience goals, the elderly "exhibit great interest in plant and animal life and in American history ..."

Furthermore, in what is described as "the emerging knowledge economy," a growing number of visitors will be well-educated. Women will steadily gain centrality as decision-makers and income-producers, affecting

numerous areas of park operations, including the way historic and natural sites are interpreted. The Pennsylvania State University study suggests that historical interpretation at National Park Service sites will need to place increased emphasis upon “family history and cultural history more than they currently do, while not excluding military, political and natural history.”

Higher population densities will also challenge park resources and services through crowding, traffic congestion, increased waiting times, or even closures when sites reach capacity. A rise in multipurpose recreation trips is expected, where visitors will come with the objective of participating in a multitude of recreational and educational activities in a single trip. Interpretive programs and media will have to be designed and deployed to match the broad spectral selectivity inherent in the expectations of this class of visitors.

Another change that will influence visitor behavior is the declining transient nature of residency, especially in the northeastern United States. This is due largely to the aging of the Baby Boom Generation, which is increasingly staying put, renewing a sense of communities of place. There may be an increase in repeat visitation by locals, who will know more about the site and who may be prone to a “been there, done that” mind-set. If so, there will be a greater need for higher levels of interpretation and for changing programs to sustain interest. Despite greater diversity, the Pennsylvania State University study believes that “visitors will pursue a common pattern of onsite behavior regardless of ethnicity.”

This useful study predates the events of September 11, 2001, which have so dramatically challenged the course of American life. Concerns for airline safety have already adversely impacted many popular vacation destinations, though it is too soon to tell whether this represents a long-term trend or a temporary lull. The War on Terrorism will certainly have other profound effects, some difficult to anticipate and others equally difficult to quantify. When the American Association for State and Local History was compelled to cancel its Annual Meeting, scheduled for September 12th, due to the National Emergency, the editor of its newsletter (*Dispatch*, October, 2001), duly reported: “... Already we are hearing from our members that people are turning to history for answers, consolation, comfort, and assurance. Those who preserve and present state and local history need to realize the importance of their work in these times. Many are visiting historic sites and museums to reassure themselves of American values and why

this country has become what it is. It is important for us to give solid support to these needs. People are looking for places to express their feelings and concerns. We in the field can remind the public that our predecessors have overcome tragedy and that we can do the same”

The Interpretive Platform

An Interpretive Zone is most easily defined as a region unified by a common resource base, whose inhabitants therefore share a distinctive sense of place. Such a zone may be defined by geophysical provinces; a unique biosphere; watersheds; lake or sea shores; canals; historic roads or trails; railroads; or by some common activity or social bond.

The purpose of the following Interpretive Zones is to provide a reference for statements of *Historical and Geographic Context* in General Management Plans and Interpretive Plans within the Division. They also help to link sites thematically on the basis of resource communities and their development. The zones offer a curriculum through which the public may access and sample particular thematic areas of interest, or pursue either a chronological or spatial progression of thematic developments. Each zone, however, hosts a variety of interpretive themes.

Lying between the Appalachian mountains and the sea, the State of New Jersey occupies a portion of the Atlantic slope, which traverses the Outer Coastal Plain; the Piedmont Plateau; the Inner Coastal Plain; the Highlands; the Kittatinny Valley; the Blue Mountains and the Minisink country of the Upper Delaware Valley.

For interpretive purposes, the State is subdivided into four Interpretive Zones, each containing two geophysical subunits, namely: (I) the Minisink Country and the Blue Mountains; (II) the Kittatinny Valley and the Highlands; (III) the Sandstone Piedmont and Inner Coastal Plain; and (IV) the Outer Coastal Plain and Sandy Forelands.

Interpretive Zone I - The Blue Mountains and Minisink Country

The Minisink Country

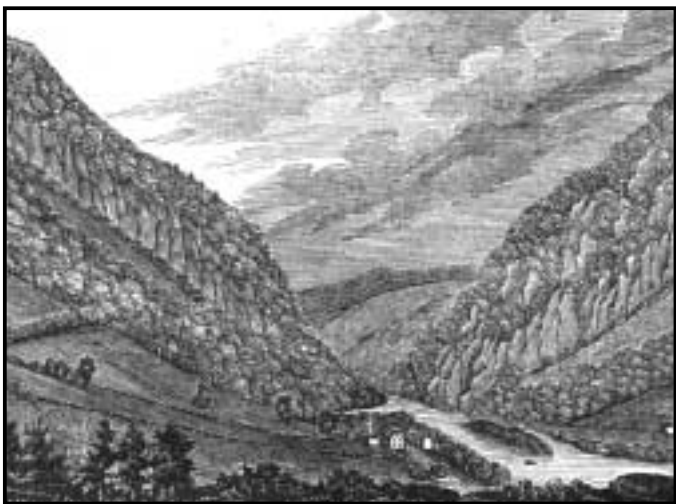
The limestone bottomlands and alluvial flats of the Delaware River and the tributary Flat Brook were highly productive of cereal grains. The intervening Walpack Ridge was well wooded and mountain streams operated

grist and saw mills. Foot paths passed the mountains at Culvers Gap, High Point, on Criggers Road and at Catfish Pond. Several of these became important roads and turnpikes, converging on Milford, Pennsylvania, and thus part of a major overland route from tidewater to the Great Lakes. The river road formed a secluded link in the route connecting New England to Philadelphia and the southern colonies.

The Minisinks inhabited the country surrounding Great and Little Minisink Islands, south to Walpack Bend and northward to Cashecton, New York. When the French and Indian War broke out in March 1756, forts or block-houses were built at strategic locations along the frontier, including a fort at Colonel Abraham Van Campen's on the Pahaquarry Flats and Cole's Fort at the confluence of the Delaware and Neversink Rivers. Despite the efforts of Jersey troops stationed at these strategic outposts, hostilities continued until June 1758. The only French and Indian War sites in New Jersey are found in the Upper Delaware Valley.

High Point State Park and Worthington State Forest form gateways at opposite ends of the Upper Delaware Valley, flanking extensive lands of the Delaware Water Gap National Recreation Area. Both of these parks developed as nineteenth century scenic summer resorts and were later acquired by private wealth and developed into summer estates and game parks.

(Below) The Delaware Water Gap, Barber & Howe, 1844



The Kittatinny or Blue Mountains

The folded Paleozoic strata of the Kittatinny or Blue Mountains form an even-crested ridge that rises from 1,495 feet at Mount Tammany in the Delaware Water Gap to 1,804 feet at High Point, the highest elevation in

New Jersey. From an elevation of 1,650 feet on Sunrise Mountain, the ridge descends to 1,340 feet at Culvers Gap. Several ponds fill depressions on the mountain crest and the Flat Brook intrudes upon the west slope, narrowing the mountain plateau to a width of about two miles. The Delaware River has carved its scenic passage through an offset fault in the mountain's crest.

A mixed, coniferous and deciduous forest covers the rocky mountain summit. The distance from markets and inaccessibility limited commercial and domestic cutting. The inflammability of pitch pine and dried deciduous leaves in autumn and spring fed recurrent fires. Oak bark created the basis for an extensive tanning industry.

LINKAGES: Native American Heritage Sites; (proposed) French and Indian War Heritage Trail; Women's History Trail.

CROSS-REFERENCES: Transportation Heritage Sites (river traffic, lumber rafting, ferries, prehistoric paths, roads and turnpikes); Scenic Values, Leisure and Resorts (Worthington and High Point); Public Monuments (High Point).

Interpretive Zone II — The Highlands and Kittatinny Valley

The Highlands

The Highlands comprise an elevated gneissic plateau with an average height above sea level approaching 1,000 feet, covering 900 square miles in northwestern New Jersey. Its short even-crested ridges, plateaus and isolated hills are the exposed, plutonic roots of ancient mountains, elevated during the Mesoproterozoic assembly of the Rodinia supercontinent. The region cradles a spectacular stock of metallic ores and some veins of iron can be traced for five miles, extending from one deposit to another. Clustered hills of Silurian quartzite, sandstone and conglomerate, locally known as the Green Pond, Kanouse and Copperas Mountains, divide the Central Highlands Plateau from the Passaic Range.

Differential weathering sculpted the present topography: hard metamorphic rock forms the backbone of the uplands, while streams have eroded their valleys upon sedimentary shales and limestones. The land is heavily glaciated north of the end moraine, a belt of short hills, interspersed by water-logged hollows, called kettles, running through Denville, Dover, Budds Lake, Saxton Falls, Buttzville, and Belvidere. Swamps and kettle ponds dot

outwash plains. Drift-plugged outlets created Culvers Lake, Swartswood Lake, Lake Hopatcong, Budd Lake, Green Pond, Allamuchy Pond, the Drowned Lands of the Wallkill, the Paulinskill Meadows and the Great Meadows. Several of these large freshwater lakes developed into popular summer resorts and campgrounds after 1875. Lake Hopatcong was first enlarged in 1766 as a forge pond and then, in 1825, as the summit reservoir of the Morris Canal. Its outlet feeds the Musconetcong River, a valuable mill stream.

In historic times, a deciduous, broad leaf forest, with chestnut prevailing over oak, clad the Highlands, with a great deal of hickory in places, intermixed with scattering white pine on rocky slopes and occasional stands of hemlock. Red cedar and black walnut grew on abandoned clearings. Scrub oak prevailed atop ridges and on sandy soils around Succasunna Plains. Maples, elms, white pines and hemlocks shaded stream bluffs and lowlands. Wooded swamps included maple, beech, elm, scattered pines, larches and white cedar. Butternut, birch, poplar and ash grow intermittently. Some hemlock is found on Jenny Jump Mountain, with oak, chestnut, cedar, ash and poplar in the surrounding valley.



Meredith and Hood, *Geography and History of New Jersey*, 1921. The hills and lakes of the Highlands.

Highland timber suffered considerable damage from fires, browsing cattle, and cutting for charcoal, cordwood, railroad ties, mine-props, fencing and hoop-poles. The point of maximum deforestation was reached by 1850. The limestone valleys, denuded of forest except for small woodlots, were brought into cultivation during the eighteenth century.

The Highlands are remarkable for the massing of waterpower at certain points, usually near its borders, and mill streams on its eastern borders were favorably situated for

transporting manufactures to market. The fortunate combination of rich ores, forested hills and convenient waterpower encouraged iron manufactures. The Kittatinny Valley also enjoyed great advantages for waterpower, but was distant from tidewater markets before the advent of railroads in 1854.

The Kittatinny Valley

Forty miles of the Great Appalachian Valley pass through Sussex and Warren Counties, northwest of the Highlands. Kittatinny Limestones and Martinsburg Shales, the product of Ordovician marine sediments, compose the valley's undulating floor. Shale ridges run with the main axis of the valley, dividing the limestone lowlands into parallel channels, trenched by streams. The limestone soils of the Kittatinny Valley were New Jersey's most productive farmlands and streams descending the flanking foothills gave motion to many mills. Many ponds and lakes, found in the glaciated portion of the valley, served as mill ponds, ice ponds, and recreational attractions.

LINKAGES: Native American Heritage Sites (Swartswood, Wild Cat Rock, Paulinskill Meadows, Muckshaw Ponds); (proposed) Mineral Heritage Trail (Worthington -slate quarries; Franklin, Ogdensburg, Edison, Lake Hopatcong, Andover, New Andover, Waterloo, Wawayanda Ironworks, Andover Mine- Kittatinny Valley State Park, Ringwood State Park; Long Pond Ironworks; Windsor Lime Kilns, Oxford Furnace, Sussex Branch Trail); Women's History Trail.

CROSS-REFERENCES: Transportation Heritage Sites (Morris Canal, roads, turnpikes, mine tramways, railroads); Scenic Values, Leisure and Resorts (Wawayanda, Kittatinny Valley, High Point, Swartswood, Stokes, Hacklebarney); Agricultural Heritage Sites (Barrett Farm, Lusscroft, Keen's Mill).

Interpretive Zone III - The Sandstone Piedmont and Inner Coastal Plain

The Sandstone Piedmont

The piedmont plateau extends along the Delaware River from Trenton north to Holland, and continues along the southeast margins of the Highlands from Pattenburg to Suffern, New York. Two State Reservoirs and Recreation Areas, Spruce Run and Round Valley, are located along this boundary. The piedmont fronts the Hudson River and Kill Von Kull. Its lacustrine red mudstones and shale

formed from sedimentary deposits in a deep Triassic rift valley. The exposed and upturned edges of three extrusive lava flows form the parallel, semicircular trap ridges called the First, Second and Third Watchung Mountains. The coarse-grained diabase of the Hudson Palisades indicates a sill of molten magma that cooled slowly at great depths. During the latter half of the nineteenth century, the Palisades Ridge in Hudson County was “rapidly occupied by a city.” Cretaceous sedimentary rocks of the Inner Coastal Plain overlap its southeastern boundary, which runs from Trenton to near the outlet of Lawrence Brook, below New Brunswick, and northeast to the Arthur Kill.

From the beginnings of pioneer agricultural settlement, through the rise and decline of industrial cities, this red-soiled plain has been “the most densely populated and highly cultivated portion of New Jersey.” Cities have grown from tidewater villages, often situated near the fall-line where streams descend from interior uplands, so providing ample industrial power, and near to water transport upon navigable tidal bays and creeks. Industrial enterprise centered around cascades of the Passaic River crossing First Mountain at Great Falls in Paterson and Second Mountain at Little Falls.

By the end of the nineteenth century, the suburban and urban growth of population in the Hackensack Valley resulted in reforestation of upland slopes. A mixed, deciduous growth prevailed, with oak predominating in the lowlands and chestnut on the ridges. Gum, River and Gray birch, beech, and maple prevailed on swampy ground. The Palisades was well-wooded by 1900, covering an unbroken tract of nearly 11,000 acres. Oak and chestnut predominated, with some pine and hemlock near Huyler’s Landing.

Oak, chestnut and hickory dominated the original forest covering the Watchung Mountains. An unusual growth of hemlock was noted in 1899 near Pompton Lakes and scattered stands of pine were observed on Long Hill, on First Mountain, south of South Orange, and on Second Mountain, south of Murray Hill. Gum, maple, and willow prevailed in the valleys. Extensive flats, such as Pompton Plains, were cleared for cultivation. Pin oak, maple, birch and elm thrived in the Great Swamp. East of the First Mountain, “the thickly settled and highly cultivated valley, whose surface appears like a plain, [was] painted with meadows, grain fields and orchards, and studded with the villages of Bloomfield, North and South Orange, and the large towns of Newark and Elizabeth”

Plainfield, Bound Brook, Somerville, Raritan and Flemington were thriving population centers built upon the extensively farmed Raritan Valley. Timber was found in small farm woodlots of oak and hickory. The trap ridge of Rocky Hill forms its western rim. A broad outcrop of argillite, a very hard mud rock, constitutes the West Hunterdon Plateau, which remained forested, largely with oak and hickory, but also with scatterings of pine. Trenton, Pennington and Princeton occupy a triangular shale plain, wedged between Rocky Hill, the Delaware River, and the northwest boundary of the Inner Coastal Plain.

Early footpaths, worn by use into highways, crossed New Jersey’s narrow waist between New York and Philadelphia. The opposing armies repeatedly trampled and contested this vital corridor throughout the Revolutionary War. Great battles and skirmishes echo down through time from Trenton, Princeton, New Bridge, and Monmouth. During the industrial revolution the Delaware and Raritan Canal carried coal from the Delaware River through Trenton to tidewater at New Brunswick.



Washington Crossing the Delaware River.
Charles Goodrich, *A History of the United States*, Hartford:
1833.

The Inner Coastal Plain

An emerged Cretaceous sea bed, including greensand marls, forms the Inner Coastal Plain, a belt of land averaging twelve to fifteen miles in width, that extends southwest from Raritan Bay to Trenton and from thence along the Delaware River into Salem County. Isolated patches of Beacon Hill Gravel cap its highest hills, leaving outcrops of marl and sandstone to stand as a cuesta ridge, extending from the Atlantic Highlands to Beacon

Hill, thence southwest between Englishtown and Freehold, continuing through Arney's Mount, Mount Holly, Mount Laurel, Woodbury Heights and Mullica Hill.

The streams are "generally crooked and sluggish; and the larger are navigable for 10 or 15 miles from their mouths." The largest towns were tidewater entrepôts, set upon fastland fringed with fresh and salt marsh, where rivers and wagon paths debouched the products of hinterland forest, farm and forge. Along such navigable streams, convenient to city markets, farmers specialized in the "profitable culture of garden vegetables, potatoes, melons, fruit, &c."

High tides overspread coastal lowlands and creek banks, nourishing extensive salt meadows, mown for their coarse hay. Embankment and drainage converted marshes to crop land of timothy, clover and blue grass. Cattle, horses and hogs ranged upon natural meadows.

The most valuable clay industries of New Jersey were founded upon the Raritan clays of the Cretaceous age. Pine and oak timber were the most profitable crop on sandy soils. Sawmills along tributary streams converted pine and oak wood into lumber for market. Cranberry production became a major commercial enterprise on the Inner Coastal Plain. Oysters, clams and fish were harvested from bay waters.

Coastal roads connected hamlets at the head of navigation along the various streams. The Amboy- Burlington road was a much-frequented route between Manhattan and Philadelphia. The village that grew up around Daniel Cooper's Ferry was the kernel of the great city of Camden.



Batsto residents in front of the Gristmill, 1910

LINKAGES: Crossroads of the Revolution National Heritage Area; Ten Crucial Days; Women's History Trail.

CROSS-REFERENCES: Transportation Heritage Sites (ferry, roads and turnpikes; Delaware & Raritan Canal; Central Railroad Terminal, Twin Lights); Scenic Values, Leisure and Resorts (Washington Crossing State Park); Native American Heritage Sites; Public Monuments (Statue of Liberty, Ellis Island; Princeton Battle Monument; Monmouth Battle Monument; Trenton Battle Monument); Agricultural Heritage Sites (Monmouth Battlefield; New Jersey Museum of Agriculture); Mineral Heritage (clay and marl industries).

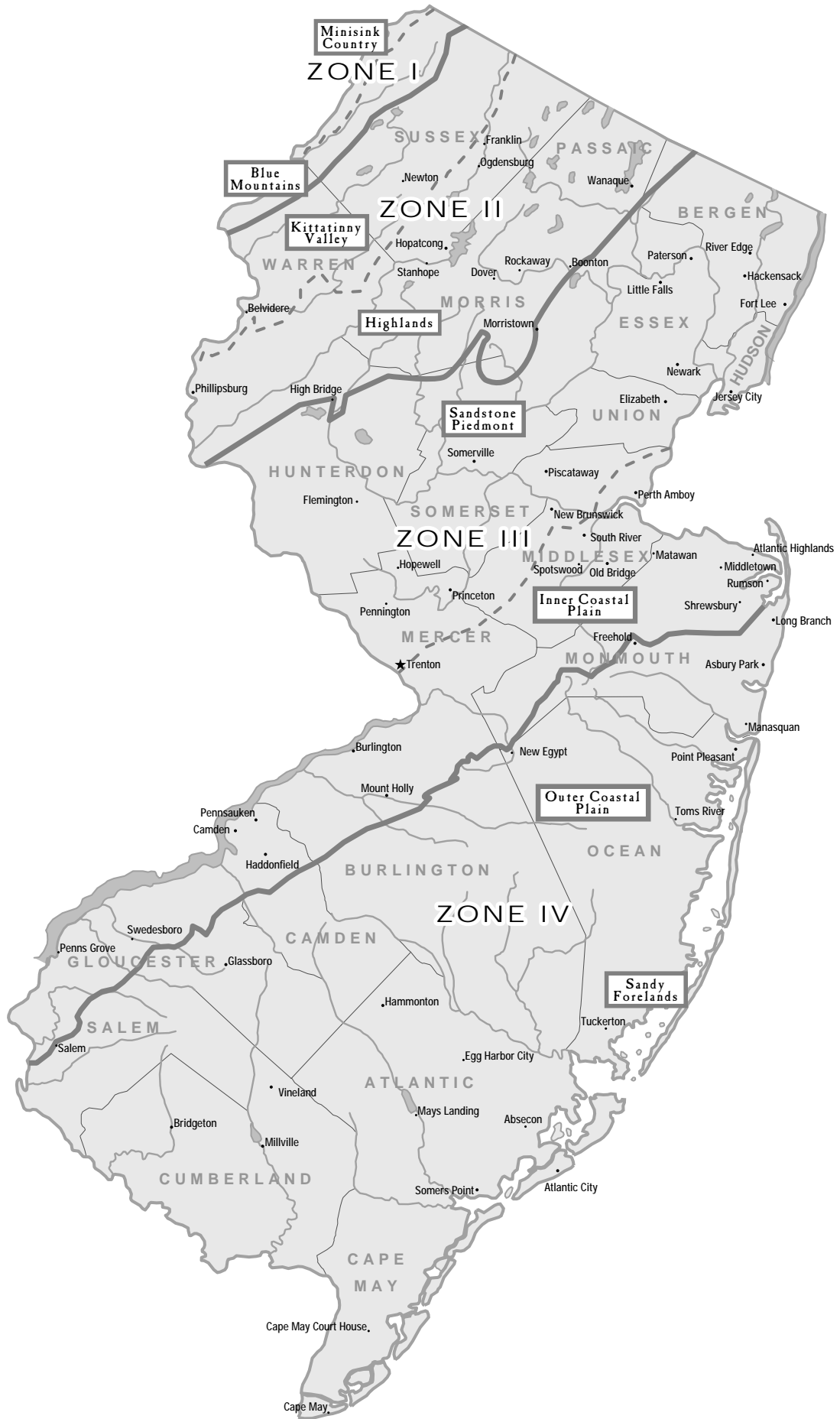
Interpretive Zone IV — The Outer Coastal Plain

The Outer Coastal Plain

The Outer Coastal Plain is a seaward, alluvial zone running from the outlet of the Raritan River eastward along Raritan Bay and Sandy Hook Bay, then southward along the seashore from Sandy Hook to Cape May and finally northwest along the shores of Delaware Bay to the outlet of Alloways Creek. Coarse sand, white clay and gravel of the Late Miocene Cohansey Formation, which locally has consolidated into sandstone, form its surface. Except for a cultivable strip along the seashore, whereon a line of small farms formed the "shore road," this immense sandy and unfertile plain was covered with pine, oak, maple and cedar, composing a unique biosphere. The Pine Barrens were long regarded as "the wildest and most undeveloped portion of the State."

Streams pursue their crooked courses through flat country, bordered by marshes, and are reliably navigable for a considerable stretch inland. The principal villages stand near the head of navigation, where streams draining the pine forest blend into their tidal estuaries. Coastal vessels carried charcoal and lumber to market.

Bog iron found in this district, mixed with richer mountain ores, produced "good iron for castings and the forge." The Little Egg Harbor River and its tributary, the Wading River, furnished "more natural water-power than is to be found in any other township in this part of New Jersey." Water operated saw and gristmills, furnaces, forges, and glassworks. By 1834, fourteen furnaces (including cupolas), fourteen forges, a rolling-and-slitting mill, a nail factory, and eleven glass manufactories, producing window glass and hollow ware, were the chief sources of wealth, selling their output in city and coun-



try markets while providing local farmers with a ready market for their agricultural productions.

The manufacture of iron and glass consumed timber in the production of charcoal fuel, reducing the forest in their immediate vicinities. Further commercial demand for cordwood came with steamboat travel, since charcoal made from pine was needed for kindling anthracite coal. Oak of considerable size grew on loam soils, covering the central portion of Cape May County, and was "much valued in the construction of ships." White cedar was valued for fencing.

Sandy Forelands

Narrow, sandy beaches, varying in width from a few rods to half a mile, extend along the tidal plain from Sandy Hook nearly 125 miles to Cape May. Sand islands form forelands along the coast that enclose shallow lagoons or bays on their landward flanks. These barrier islands protect the coast south of Bay Head, isolating an inland waterway of salt bays, connected via sounds and crooked channels called *thoroughfares*. Island Beach extends south twelve miles to Barnegat Inlet. Long Beach Island extends for eleven miles between Barnegat Inlet and Beach Haven Inlet. The Great Bay of the Mullica River and Great Egg Harbor comprise the widest of the inland salt-marsh lakes. All abounded with clams, oysters and fish, providing employment to shore-dwellers. Barnegat Bay is thirty miles long, two to four miles wide, reaching a depth of about 20 feet near Lovelady Island. Southward toward Cape May, the barrier beaches are more frequently divided by inlets into islands. Ship-building and the lumber trade were major industries.

Boarding-houses were built for the accommodation of sea-bathers and summer excursionists, receiving visitors via stagecoaches from Philadelphia and steamboats from New York. In 1888, C. Clarkson Vermeule surmised that: "The isolation and the opportunities for sailing and fishing afforded by the inside waters form prominent attractions for all seaside resorts south of Bay Head, as the connections with the mainland and consequent facilities for driving and nearness to the great cities attract patrons to the more northern resorts, while the leading allurements of sea air and surf-bathing are common to all."

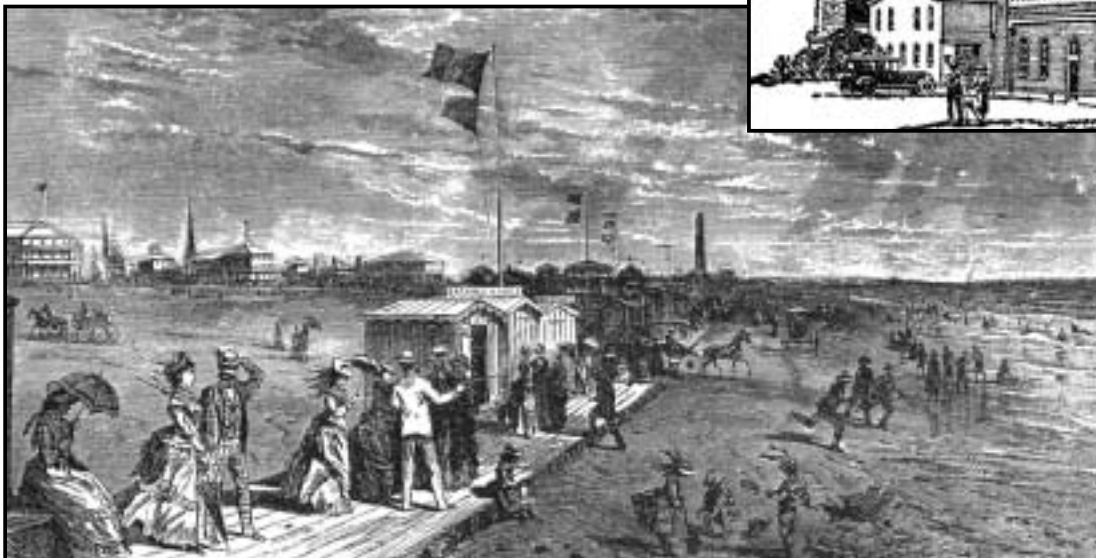
Historic lighthouses and fortifications are an integral part of our coastal heritage. The twin towers of Navesink Light Station, standing atop Beacon Hill marked the seaward approach to New York Harbor.

LINKAGES: Coastal Heritage Trail; Women's History Trail.

CROSS-REFERENCES: Transportation Heritage Sites (maritime heritage, lighthouses, ferry, roads and turnpikes); Native American Heritage Sites; Scenic Values, Leisure and Resorts; Agricultural Heritage Sites (Whitesbog; Batsto); Mineral Heritage Trail (Batsto, Allaire, Atsion, Glass manufacture; clay industries and pottery).



(Above) Twin Lights, *Know Your State*, 1925. Renowned as "the most powerful light in America," the Navesink light was visible 22 miles at sea. The present building was constructed in 1862. Though called twins, the south tower is square while the north tower is octagonal.



(Above) The Beach at Atlantic City, *Industry in America*, 1881.

A Thematic Approach

Nature is a vast processional matrix, intricate and incremental. History is an open book, being continually written and revised in many different handwritings and with constant marginal criticisms. But heritage interpretation cannot be an open faucet, gushing an unorganized stream of information. Nor is it intended to promote a narrow point of view, or any single-minded political or social advocacy. Instead, heritage interpretation captures meanings in a shared, ever-learning process that combines an open-minded, insightful sense of discovery with an imparting enthusiasm. A thematic bundling of relevant information helps the visitor to relate any particular aspect of a place or event to a broader understanding of history or nature.

Effective interpretation taps into an audience's interests and experiences by suggesting different advantageous and interesting ways to view a particular historical figure, event, natural phenomenon, or place. Interpretation makes the bridge and bond between curiosity and understanding, between observation and insight. And every telling becomes a listening — there can be no twice-told tales, or at least not tales told twice in precisely the same way, because each telling should provoke reconsideration, challenge old confidences, and discover new nuances.

From a distance in time or scale, we can rarely comprehend the whole of a particular place, event or person, even with our entire imagination, but we can examine parts, combine clues and establish patterns. Fitting meaningful particulars, observed in an interpretive setting, into relevant overarching contexts, yields a compelling story or thematic presentation that can be usefully communicated to others.

With historical interpretation, the story always derives from an object or place that holds evidence of some interesting human interaction. With natural interpretation, the story derives from observed phenomena that reveal some intriguing process or componential interactivity. We interpret that evidence in the best light of our present knowledge and experience. Since there is usually more than one story to be found in any given object or place, stratum upon stratum, it is necessary to establish the relative importance of themes, particularly as regards the primary significance of the resource and the receptivity of its audience.

In other words, there is a story in every person and in

every place, just waiting to be told. Some stories are simply more compelling than others, but every story needs to be well and truly told. The best interpretive themes, therefore, express some human interest, allowing listeners to connect through an imaginative transfer of their own experience. Events or processes that transform everyday lives and once-familiar places generally make good subject-matter for compelling stories, reaching to the core of the human condition. Change often involves an elemental struggle for survival or for self-expression; it can be powered by the search for dignity or for light; for social betterment, for nourishment, for self-improvement, or even for salvation. Taken as a whole, these transformations — whether written small or large — reflect our common predicament.

It is very helpful to shape information into thematic stories for a practical and often undervalued reason: stories are finite, each having a beginning and an end. Stories provide a flexible framework for messages, allowing for customization in length and detail. When these simple boundaries are evident in interpretation, most audiences derive a satisfying sense of completion, of having been respectfully treated to the attention that both they and the resource deserve. Decisive endings also open the door for more esoteric dialogue, at least for those who have a further interest in the resource, while others who have satisfied their curiosity are free to continue on their way.

Since the significance of a resource may change over time, if only through a change in public perception, it is useful to review interpretive themes every few years. Psychographics, which evaluate “meanings,” are more useful than demographics in this kind of analysis.

According to the American Association of Museums in *Excellence and Equity* (1992), “museums provide meeting grounds where enriching experiences are offered both through human interaction and interaction with objects and ideas.” Interpretive themes facilitate these interactions, channeling the visitor's experience toward a set goal or educational objective. An interpretive theme is simply the underlying lesson or moral of a purposive discourse — it is what drives the story of any significant person, place or event to its climax and conclusion, unifying all of its elements. To put it bluntly — an interpretive theme encapsulates whatever it is about a particular place that justifies having someone knowledgeable standing there to explain its significance to others. Interpretation, in this very real sense, is one of the most productive means of preservation, because explaining why something is worth keeping, particularly to those

who may not yet appreciate its significance, goes a long way towards securing its due respect and proper maintenance.

In summary, it is important to re-state the following guidelines:

- Interpretive themes are always resource-driven. They arise from the particular circumstances that lend significance to a specific place or object.
- Interpretive themes can become skewed if judgmentally derived from preconceptions or conjecture.
- Subtexts should be developed and prioritized.
- Credibility is a precious trust established between an interpreter and his or her audience. Once lost, it is difficult to restore.

Thematic Guidelines

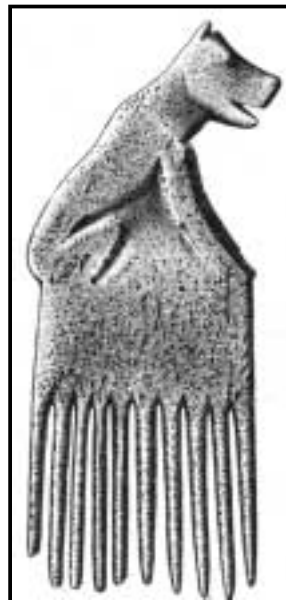
Due largely to its remarkable diversity of resources, the Garden State has always been at the forefront of change, serving as a crucible for revolutions in politics, agriculture, industry, social reform, and popular culture. These revolutions have been associated with particular voices and faces that have contributed significantly to our shared destiny: from Chief Oratam, George Washington, Thomas Edison, Clara Barton, Elizabeth Cady Stanton, Woodrow Wilson, and Elizabeth White, to Thomas Nast, Walt Whitman, Alice Paul, Gustave Stickley, Bruce Springsteen, and Frank Sinatra. Change can be resisted or welcomed. The long-cherished hope to change for the better is embodied in New Jersey's revolutionary motto:

Liberty and Prosperity.



New Jersey: Threshold of Liberty, Paths to Prosperity.

New Jersey is deeply layered with story. What began as the most ethnically and religiously diverse colony has become the most densely populated state. Eighteenth-century European visitors, expecting to behold a vast untamed wilderness, quickly praised the colony for its cultivated landscapes as the "Garden of North America." The earliest rural phase of the industrial revolution introduced millers, bloomers, miners and colliers to our streams and forests.



Bone Comb found at Minisink about 1895.

From their first appearance in the light of history, the Lenape divided into at least three dialectal groupings from north to south: the Minisinks, the Sanhikans and the Sawanoos. Along the Hudson River and upon the shores of Raritan Bay, New Netherlanders spread their farms and fields. The so-called Jersey Dutch comprised one of the New World's first polyglot communities, composed of Hollanders, Frisians, English, Palatine Germans, Africans, French Huguenots, Scots, Scots-Irish, Poles and Scandinavians. Swedes and Finns pioneered settlement of

the Delaware Bay and River. William Penn purchased West Jersey as a Quaker refuge ten years before receiving the Royal grant of Pennsylvania. New England Puritans established their towns at Newark, Elizabeth, Piscataway, and Middletown. Dutch farmers descended the Neversink into the fertile Minisink country. And Germans pushed from the Delaware Valley into the valleys of the Raritan, Musconetcong and Paulinskill.

The land itself is richly textured and changing, mile by mile. Occupying a full cross-section of the Atlantic slope between blue-hazed mountains and the sandy sea, New Jersey possesses a rich natural diversity of resources and provides varied geologic terrains and ecological habitats to support a variety of flora and fauna within a relatively compact space. Over ten millennia, human inhabitants have adjusted their strategies, technology and material culture, to best exploit the changing resource base, beginning with hunting-and-gathering and continuing through the introduction and practice of horticulture, agriculture, extractive industries, mechanical trades and high-volume industrialization. In so doing, humans have significantly impacted their environment.

Since the foundations of colonial settlement were laid in the seventeenth century, Jerseymen have contributed significantly to the principles and practice of self-government, which now form the core of our National existence. New Jersey is the crossroads of the American Revolution, having suffered a greater proportionate loss of life and property than any other of the thirteen colonies. New Jersey accordingly encompasses numerous sites of national significance associated with the struggle

(Right) A Strawberry Farm, *Industry in America*, 1881, (Below) A Basket of Jersey Peaches.



for American Independence, that entitle the State and her citizens to great honor and praise.

Because its geologic structures and soils were well-suited to cultivation, New Jersey has always been known for its agriculture. As early as 1686, a Scottish atlas referred to the Jerseys as the “Garden of the World.” In 1780, Marquis de Chastellux called New Jersey “the garden of America.”

From the start, agriculture has ebbed and flowed in response to natural events and market conditions, constantly reshaping the landscape. New crops were cultivated and livestock was diversified. A nineteenth-century transportation revolution steadily forged a national market. Competition, especially from the vast Midwestern Plains, induced many New Jersey farmers to give up cereal agriculture and to specialize in the production of milk, orchard fruits and truck gardens.

In addition to its agrarian heritage, New Jersey was, and continues to be, a vital center of industry and commerce. In earlier times, diverse natural materials were skillfully manipulated by hand processes to produce many useful and decorative articles. New Jersey’s rich mineral deposits encouraged the development of numerous iron manufacturing centers in the eighteenth and nineteenth centuries. Zinc deposits at Franklin and Ogdensburg were developed after 1855. The prevalence of suitable clays prompted the development of potteries and brick yards. Granite, limestone, sandstone and trap rock were extensively quarried. South Jersey’s sandy soils gave rise to a significant glassmaking industry. The early nineteenth-century trend towards mechanical innovation and the development of a continuous-process method of manufacturing had profound economic and social consequences. Technological innovation continued to drive economic and social change through the introduction of the internal combustion engine and electricity.

While the existence of raw materials dictated the types of industry possible, the State’s geography determined where these industries could be located. The particular circumstances of local geology decidedly influenced human activities, especially in relation to the agricultural base and industrial development. Rivers and streams provided power to operate mills and furnaces.



“The whole Colony of New Jersey is a champaign.”
John Adams, 1774

to reach city markets.

A transportation revolution on land and water made New Jersey a transportation hub, bringing together skilled labor, raw materials and market access. Canals became important routes for the cheap transport of bulk freight, especially coal and ores, until they were displaced by the much faster, all-season railroads. Rail-supplied coal made steam power widely available, causing the rise of the modern factory system and the industrial city. The State's topography shaped these transportation routes, contributing to their success. New technologies contributed to their decline and replacement.



(Above) Jersey Wagon at a Country Hotel, *Industry in America*, 1881, (Below) Boat Passing the Summit of a Morris Canal Incline Plane, "Life Among the Nail-Makers," *Harpers Magazine*, July 1860.

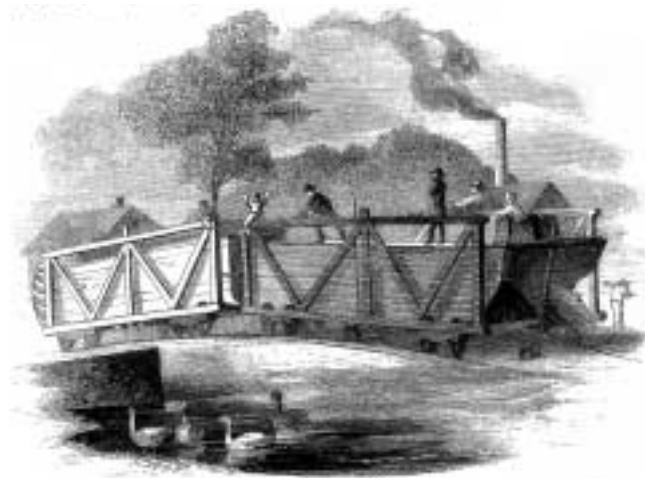


By Agriculture we live, By Industry we thrive.

The Industrial Revolution forever altered the American countryside with its agricultural base, water-driven industries, and regional tidewater markets, interlaced by a primitive network of roads and communication. Mechanical innovation and modern industrialization reduced many traditional craft workers to machine operatives and bred urbanization. The conversion to coal as a fuel not only changed the location and scale of industry, but its use for domestic heating changed lifestyles and architecture. Innovation and mechanization also changed the routine of farm life, increasing productivity while reducing the need for manpower. The railroads took not only the farmer's goods, but also the younger generation to city jobs — a trend reinforced by significant ethnic changes in demography through immigration.

Bartholdi's Statue of Liberty lifts her lamp beside the Golden Door — literally, the ornate Gilded Age caverns of great railroad terminals along the Hudson River, which served as portals to the American Dream for an estimated two-thirds of the immigrants who passed through Ellis Island. These rails were the life lines of the industrial Metropolis, feeding food, fuel and raw materials to sustain and occupy an urban civilization.

Increasingly congested and polluted, cities were forced to build infrastructure for the distribution of potable water, food, gas, electricity, and for the removal of industrial waste and domestic sewage. The middle and upper classes migrated to the suburbs, where urban conveniences were expected in a more rural setting. Suburbanization increased land values and further encouraged the abandonment of farm lands. All classes of people tried to escape cities in the summer season.



(Above) The Central Railroad Terminal, built in 1889. Liberty State Park, Jersey City.

Resource accessibility and market proximity influenced the development and improvement of transportation systems. New Jersey's role as a "corridor state" was well established by 1745. Lying between Philadelphia and New York, it was a natural transportation link for goods and people. Roads and road improvement were a constant public concern. At the dawn of the nineteenth century, turnpike companies were incorporated to smooth the way for inland producers

The rise of a middle class came with the onset of the Industrial Revolution. People were no longer tied to the rhythms of the land in their daily work. Urban areas were growing, providing greater freedom in one's chosen line of work and greater freedom to experience all aspects of life. As mechanization vastly increased productivity, it also obliterated the old agrarian calendar, driven by the seasons and weather. It created the notion of leisure time, which often found expression in the family summer vacation. New Jersey was at the forefront of this new industry.

Nineteenth-century Romantic concepts idealized Nature as a redemptive cultural symbol in contrast with the rise of the industrial city and an increasingly technological civilization. A new piety towards the Great Outdoors and a devotion to camping, hunting, fishing, picnicking and wildlife conservation were safely expressed in summer vacation resorts on mountaintops, at ponds and lakes, or on sea shores. Railroads conveyed large numbers of people to vacation retreats on the periphery of industrial cities.

Between 1890 and 1920, wealthy captains of industry, investment capitalists, private clubs and corporations, acquired vast tracts of scenic landscapes for club parks, camping grounds, amusement resorts, and private estates, including Buckwood Park (Worthington), Lake Wawayanda, Ringwood Manor, Swartswood Lake, Cranberry Lake, Lake Hopatcong, High Point and Slaters Lake (Lake Aeroflex).

By 1905, the automobile revolutionized vacation habits, allowing for day trips to a greater variety of destinations and for site-hopping road tours. In response to these early efforts to protect significant cultural and natural resources for educational and recreational purposes, the State of New Jersey began to acquire Historic Sites in 1903, State Forests in 1905, and State Parks in 1915.

With American entry into the First World War in 1917, Camp Dix and Camp Merrit became major assembly points for recruits. At war's end in 1918, the United States stood foremost among the world's industrial powers. An era of economic prosperity — popularly styled the Roaring Twenties — was also a time of social and technological change, highlighted by adoption of the Nineteenth Amendment to the Constitution in 1920, granting Woman Suffrage. The growth of public utilities extended electrical transmission to rural areas. Advances in electronic media and communications equipment brought telephones and radios into many homes, and stadium-type movie theaters to many communities.

Modern factory methods also made domestic appliances and automobiles available to increasing numbers of people. With the construction of the Trans-Hudson tunnels and bridges between 1927 and 1931, connecting New Jersey and New York, the State embarked upon the construction of an extensive State highway system to accommodate suburban commuters. Railroad passenger and freight service declined rapidly in competition with the automobile and airplane.

Widening cracks appeared in this era of affluence and economic expansion. Farmers faced heavy indebtedness and low prices. Manufacturers complained of cheap foreign competition. Banks became overextended in speculative investments. The Great Depression of the 1930s brought business failures, plant closings, and considerable deprivation and suffering. President Franklin D. Roosevelt established public works relief programs, including the Civilian Conservation Corps and the Works Progress Administration.

Many men and women of New Jersey served bravely in the Second World War. The war transformed many lives, especially as women were called to work in factories and other professions long dominated by men. After World War II, veterans with young families created a demand for housing and services. Suburban sprawl began to consume New Jersey's open spaces and rural retreats.

To accommodate a postwar surge in suburban growth and automotive traffic, the New Jersey Turnpike opened its 131 miles of divided highway in 1951. The south-bound spur was added in 1966-68. The first 154 miles of the Garden State Parkway were completed in 1954 with an extension of 19 miles to the New York Thruway being added in 1957. The second tube of the Lincoln Tunnel opened in 1945 and a third tube in 1957. Interstate Route 80 was built between 1959 and 1973, slowly transforming rural areas into "bedroom communities" filled with garden apartments and tract housing.

Today, the development trend continues, changing the character of New Jersey's landscape more rapidly than at any other time in the State's history. Cognizant of these development pressures, the citizens of New Jersey have supported Green Acres Bond issues repeatedly since 1961. The newest program to preserve open space, the Farmland Preservation Act, is currently being implemented. The Division's role in these issues of vanishing landscapes and their built environments is increasingly important and re-emphasizes the need to protect, preserve and interpret those heritage resources under its stewardship.

By creative acts and visions, New Jersey's poets, inventors, mechanics, artists and artisans, and those who lead in every field of their endeavors, have significantly raised the quality and shaped the content of American life. Through parallel traditions of patriotism and political dissent, its citizens have contributed decisively to the expansion and protection of American liberties, to social justice and to the progress of our material well-being, in all national wars and through all important social movements since the American republic was formed.



(Above)
Thomas Edison
(Below)
Grover Cleveland



Having become the most densely populated State, with long-standing traditions of rural and urban life in proximity (as well as some of the earliest suburban enclaves), New Jersey has traditionally led the Nation in the accommodation of differing lifestyles, ethnic diversity and economic trends, encouraging the development of creative solutions to quality-of-life issues.



First Grant of Women's Suffrage
New Jersey women vote
under provisions of the 1776 State Constitution.

Interpretive Planning

Using broad brush strokes, a General Management Plan articulates statements of purpose and significance, visitor-experience goals and interpretive themes. It also establishes resource-management guidelines and sets forth practical alternatives for developmental action that

are resolved into a set of recommendations. It is the most encompassing planning document; its core statements set the foundation for interpretive plans, cultural and natural resource management plans, scopes-of-collection statements, furnishing plans, staffing and facility needs.

Statements of purpose and significance respectively tell us why a park or historic site was established and what meaningful associations inhabit its primary resources. More exactly, the Statement of Park Purpose explains why the resource is protected and what legislative or policy mandates directed its acquisition and guide its management and public presentation. The Statement of Significance encapsulates what important lessons the resource can teach us; it summarizes its distinctiveness and attaches it to larger meanings in the context of our natural and historical heritage. It should therefore emphasize those evocative features or aspects that possess the broadest interest.

Interpretive themes plot the stories that connect specific historic and natural resources to those larger key ideas, meanings and values which they best illustrate. They shape and direct the messages visitors may learn in their encounter with these resources. Themes develop the site's purpose and significance into simple narrative formats, bringing salient natural and cultural features to the visitor's attention.

Visitor-experience goals create or develop a sense of wonder in the site, setting forth a menu of opportunities for its audience to connect intellectually and emotionally with the storied resources in a meaningful and acceptable way.

The story is therefore key to building resource appreciation and a sense of stewardship. For this reason, heritage interpretation cannot indulge in a mere fractured recital of facts; it must somehow link visitors to the resource by the creation of memorable experiences. These stories are found in the resource — some need to be discovered, others only need to be repeated, but all need to be true and well-told. Handed from one generation of interpreters to the next, stories may become stale and need to be refreshed. An Interpretive Plan examines what stories have been told and what stories should be told. It also chooses how best to tell these stories. A Comprehensive Interpretive Plan consists of a long-range interpretive plan and short-term implementation plans.

Interpretive planning is an integrated process that examines each and every option in the overall context of goals

and themes. All interpretive messages, regardless of the method of delivery, must (1) fit the significance statement and interpretive themes; (2) target the intended audience; and (3) address visitor-experience considerations and resource-management goals.

The process is as important as the product. In point of fact, the product (that is to say, the plan) may be viewed as a snapshot of an ongoing process at a particularly critical stage in its development. An Interpretive Plan usually benefits from a diversity of input through the inclusion of stakeholders, content experts, preservation technologists, and various interpretive-media specialists. Stakeholders may be defined as anyone with something of value to contribute; they often care deeply about the resource and may therefore bring new energy to the process.

In the past, planners and interpreters have often viewed controversy as a problem when, in fact, clashing points of view can create a sense of excitement, viscerally informing onlookers that a particular place holds clues to actual events worthy of curiosity, understanding, debate, and even disagreement. But selfish issues should never drive the planning process and differences of opinion are best accommodated by the establishment of common goals that most broadly protect the value and project the true meaning of the resource.

The overall objective in planning is to become better decision-makers. For this reason, the planning process is goal-driven and not issue-driven.

Delivery Strategies and Considerations

Every good interpretive program goes beyond providing information and reveals meanings. Effective interpretation addresses the unique significance of the resource (as expressed through interpretive themes) and its audience; it does not mire in the provider's specialized field of interest or knowledge.

Advanced knowledge of the audience is a basic tool in designing interpretation. An effective delivery strategy considers alternatives when forming decisions about specific content and presentation methods. It also considers operational requirements and maintenance costs up front.

Promotional materials should accurately depict the resource and describe the actual experience that awaits

the visitor. A proper welcome begins with providing clear directions and sufficient orientation to the site. Since most visitors want to know what to do and where they can do it, orientation may be the most important function for a visitor center, trail head, contact person or station. Obviously, appropriate location and attractive design are fundamental to successfully shaping the all-important arrival experience.

Visitor facilities include: visitor centers, information centers or contact stations (for purposes of visitor orientation), education centers (designed for scheduled groups), seasonally attended stations, and unattended stations/kiosks.

Since different types of visitor facilities and interpretive media serve discreet functions and goals, a variety of options are open to consideration in determining the best way and proper place to tell interpretive stories, especially when communicating esoteric concepts. Success depends upon correctly evaluating the probable audience, and then matching the right means of communication to the right moment and place.

Visitor facilities and interpretive presentations that abstractly satisfy their creators do not necessarily capture visitors' interest, or meet their needs. Design quality influences visitor experience, but the facility, exhibit, or personal presentation should not distract from, or overwhelm, the primary resource. Architecture and media design should be linked.

Environmental education centers and visitor centers may be similar, but are not the same. Visitor centers best serve the purpose of visitor orientation. As a rule, historic structures usually make poor visitor centers.

Face-to-face interaction remains the most flexible and effective form of interpretation. Personal services, in the form of talks or guided tours, can adapt to different audiences in a way that other interpretive media cannot. Facial expressions and body language greatly amplify and direct the informational content, adjusting moment by moment to changing levels of interest and stamina within a group or from group-to-group.

Criteria for judging the success of personal interpretive services include: accuracy; the lasting or "take-away" value of the message; the opportunities created for visitors to connect intellectually and emotionally with the meanings and significance of the resource; and whether or not the presentation was engaging and appropriately entertaining.

Exhibits, audiovisual programs, wayside exhibits, publications, digital media, models, reproduction period clothing and utensils, and historic furnishings, provide opportunities for visitors to connect with the inherent meanings and significance of the resource. For this reason, planning for interpretive media and facilities begins with a careful review and evaluation of statements of purpose, significance, and interpretive themes.

Interpretive media must be more than simply informative — conveying not only facts, but meanings. Effective examples use photographs, illustrations and/or objects to create context and support content. Text, graphics, objects, design and other elements must work together and focus on a relevant and meaningful idea. Text should address the potentially curious, using the active voice, speaking concisely and authoritatively. An opening statement that engages the viewer is critical and it should link the exhibit to the resource being explained.

Standing at a distance, visitors will often decide whether or not to approach an exhibit based solely upon the perceived amount of text. Headlines work — less text is usually better. Audiovisual presentations and personal services have proven most effective in communicating concepts.

Generally, interactive, multimedia, large and/or dramatic exhibits are effective at attracting and holding attention. Artifacts and dioramas also command visitors' interest. In appropriate circumstances, live animals can provide an effective visitor experience. In developing interpretive media, it is important to organize the review process so as to avoid a disorganized stream of comments and suggestions.

Wayside exhibits can illustrate and caption an important interpretive theme with great immediacy. Since any wayside exhibit intrudes upon the resource, it is best to err on the side of minimalism.

Since wayside exhibits are feature-driven, site managers, regional staff, media and content experts, should form a review committee and undertake a survey tour, matching interpretive themes with site opportunities. Site conditions will ultimately determine the production material — factors to consider are accessibility, probability of vandalism, maintenance risks, and weather exposure. It is also a good idea to actually sketch out basic ideas and text on site, providing some visual representation of the envisioned focus and layout, while building a consensus on content.

This preliminary stage, however, is primarily a thinking process and not a graphic one. Interesting contextual information or graphic images can be solicited and their suitability discussed. However, skilled cartographers and illustrators can be employed to develop the desired graphics.

Porcelain wayside exhibits are extremely tough, lasting up to 25 years without fading, but are breakable. They are not suited to sites where there is a high probability of vandalism, since scratches, cracks and chipping are difficult and expensive to repair. They are also relatively expensive to replace. A 30-inch by 20-inch porcelain panel presently costs about \$2,000.

Screen-printed, fiberglass-embedded wayside exhibits last about seven years under normal conditions. It is standard practice to produce a run of fourteen prints, getting two embedded, and storing the remainder for future use. It presently costs only about \$100 to fiberglass-embed a print, making their replacement relatively easy and certainly inexpensive. The price of porcelain and screen-printed, fiberglass-embedded panels is partly driven by the number of colors.

The National Park Service installed its first digitally imaged wayside exhibits in 1997, using electrostatic Scotchprints, laminated on a plastic backing. These endured about four years in the shade and only one year in direct sunlight, suffering delamination. Even with the latest technological improvements, inkjet-printed digital output has a lifespan of a year, when unlaminated, and of one to two years, with lamination.

A digital 600 DPI inkjet-printed image presently costs only about 20% as much as a screen-printed image. The cost, for example, on a 36-inch by 24-inch image is \$500 versus \$2,500 for a screen print. The cost of a replacement, however, is \$500 as opposed to screen prints. There is also a warranty difference, since digital images fade noticeably within five years; screen prints come with a full 10-year warranty. Digital images are only recommended for temporary wayside exhibits or to present timely information. While inks improve every year and inkjet printing is now done on papers capable of fiberglass embedment, the durability of digital prints in the outdoors is still not proven beyond about four or five years at best.

A full and honest assessment is an essential precursor to success. Always ask whether proposed interpretive media or facilities will work, given location and layout, and the

reasons why visitors are attracted to the resource. Simple, cheap, in-house studies can yield useful results.

Front-end evaluation asks what the intended audience knows, feels, expects and wants. Psychographics, and not just demographics, are helpful in this context. Formative evaluation, undertaken during the initial design phase of essential components, asks how well something works and allows for timely adjustments. Summative evaluation is remedial, testing whether the best option has been chosen.



The Hancock House, Barber & Howe, 1844

William Hancock's dwelling, where British troops massacred a troop of militia sheltering there on March 20, 1778, is an exemplar of West Jersey's patterned brickwork architecture. The Historic Sites Commission and the Salem County Historical Society dedicated the Hancock House as a State Historic Site on April 29, 1932

Existing Conditions

New Jersey's public places are truly our common ground. Our historic memorials and natural wonders embody a certain greatness of spirit, defining and expressing the State's unique character. These public spaces also project the image we have of ourselves to others.

For the past century, stewardship of the brightest facets of this magnificent legacy has been vested in the New Jersey Division of Parks and Forestry, through its administration of 358,441 acres of public land (2001), embracing 57 Historic Sites, 38 State Parks, 11 State Forests, 3 State Recreation Areas, and 42 Natural Areas (including 10 autonomous Natural Areas).

This proud inventory cannot care for itself and cannot speak for itself — our legacy is our responsibility. Meaningful places must be perpetually understood and experienced, their appreciation renewed or their mean-

ings lost. Furthermore, new or different meanings await our discovery. For these reasons, heritage interpretation prepares the foundation of true stewardship. And New Jersey is a storied land, whose great variety of resources presents an interpretive challenge.

Historic Resources and Interpretation

The Division of Parks and Forestry is responsible for 57 State Historic Sites, staffing 26 house museums, historic villages, battlefields and historical parks. Considering that Batsto alone encompasses 33 historic structures, an actual count of historic buildings, represented individually rather than in associated groupings, probably numbers in the hundreds. In comparison the State of New York operates 35 sites, the Commonwealth of Pennsylvania operates 24, and North Carolina operates 22 state historic sites.

The Division has not only acquired historic sites and buildings "for the use, education and pleasure of the people of New Jersey," but also an extensive collection of historic artifacts with which to furnish and interpret them. These collections vary from the everyday implements and furnishings of past lives to the rare and unique expressions of our finest hearts and minds. For example, the Whitman's own copy of *Leaves of Grass*, annotated in his own hand., resides at the Walt Whitman House in Camden. Ringwood Manor has an excellent collection of Hudson River School landscape paintings.

All things considered, the New Jersey Division of Parks and Forestry administers and operates the largest historical museum organization in the State of New Jersey. The State Historic Sites together contain more artifacts, more square footage and more acreage than any other historical institution in the State. There are more than 24,000 historic objects in the collections of the State Historic Sites, approximately three times the number in the collection of the State Museum. The collections contain more than 68,000 cataloged archaeological artifacts. Additionally, significant collections of artifacts and geofacts in the possession of State Parks and Forests, not considered State Historic Sites, remain uncounted and therefore outside the protection of professional collections-management standards and practices.

The Division has made remarkable progress over the past twenty years in upgrading the Historic Sites system and its interpretation. At the time of the Bicentennial, caretakers staffed the State Historic Sites, many of them residents in small apartments or wings of the landmark

dwelling they served. As late as 1982, the salary for full-time caretaker was about \$7,200.

A curatorial position, originally assigned to Batsto, was transferred to Ringwood Manor in 1968. Based upon an open competitive civil-service exam for the old Curator title, given in 1980, professional positions were filled at Twin Lights, Washington Crossing and the Division headquarters in Trenton. Director Russell Myers authorized the first two professional field positions, one at the Steuben House and the other at the Wallace House/Old Dutch Parsonage, in July 1984. At this time the old Curator title was abandoned in a consolidation of title series, being replaced by the Historic Preservation Specialist title. While an improvement, this title ill-suited the job, being intended for the State Historic Preservation Office, which administers preservation laws and policies.

The Resource Interpretive Specialist series superseded the Historic Preservation Specialist series in October 2001. Over this same period of time, caretakers' residences were either removed from many historic landmarks to separate proximate dwellings or were eliminated altogether. Since the resident caretakers provided nearly round-the-clock security, their departure has led to the installation of more and better modern security systems.

The Historic Sites Section, a remnant of the old Historic Sites Commission, was for some years assigned to a corner of the State Historic Preservation Office. Its staff dwindled to a single professional after a historic preservation architect position was vacated in 1982. A second (Principal) Historic Preservation Specialist was added to the Historic Sites Section in 1987.

The current Office of Historic Sites therefore consists of two positions: A Resource Interpretive Specialist 4 and a Resource Interpretive Specialist 3. The Supervisor participates in history-related planning projects, advises field Superintendents and Historic Sites staff on the operation and management of historic resources, and represents the Division and the Department, as assigned, as liaison to various commissions, boards and councils, among other duties.

The Resource Interpretive Specialist 3 focuses on collection management, historic resource development and interpretive planning, drafting and editing historical publications, and research.

The current mission of the Office is to support the

administration of the State Historic Sites by providing the Division with historical program leadership, training and technical assistance. The Office is committed to increasing the public's awareness, knowledge and appreciation of New Jersey's history by supporting the preservation, restoration, conservation, research and interpretation of the Division's historic resources.

The Office of Historic Sites has successfully created a collections-management policy, designing and printing various standard forms and procedures, offering training, and providing conservatorial supplies. It has also played a vital advocacy role, both internally and externally. Its major functions include collections management, curatorial oversight of historic artifacts, training in technical museum services, research, planning, the development of historic site / museum policies, forms, and manuals, liaison with other local regional and national governmental and private organizations.

The State Historic Sites are open year round, Wednesdays through Saturdays, from 10 AM to noon and from 1 PM to 4 PM, although times may vary. Sites are closed Wednesdays following Monday holidays.

The State Historic Sites all offer school programs and special events; many offer outreach programs. Most train and use volunteer docents to supplement staffing. Most depend upon donations to Friends' groups for program budgets.

The following list of 35 State-owned historic sites and districts includes only those where there is some form of organized public presentation:

Allaire Village is a well-preserved early 19th-century iron making town with a general store, blacksmith shop, carpenter's shop, iron master's house, foreman's house, church, and museum. James P. Allaire acquired ownership of the Howell Ironworks and 5,000 acres, situated along the Manasquan River, in 1822. From 1816 to 1840, Allaire's New York marine engine shops were the largest in the country, supplying machine parts for America's growing fleet of steamships. Pig iron and castings produced at Allaire were carted by wagon to Red Bank for shipment to New York. A new furnace was built in 1831. The village is noted for its picturesque brick architecture and quaint country church. The Allaire Village Corporation presents a variety of interpretive programs and special events annually

Atsion surrounds the water power on the Atsion River where Charles Read erected an iron furnace in 1765.

Henry Drinker, Abel Jones and Lawrence Saltar took possession in 1774, continuing operations until 1805, when it was purchased by Jacob Downing. Samuel Richards acquired the property in 1823 and erected the extant Greek Revival mansion in 1825, using thirteen iron columns cast at his furnace at Weymouth for porch supports.

By 1834, Atsion comprised a furnace, producing 800 to 900 tons of castings annually; a forge, making 150 to 200 tons of bar iron annually; a gristmill and three sawmills. At that time, about 100 laborers were employed. Upon Samuel Richard's death in January 1842, the property was inherited by his children, Maria, wife of William W. Fleming of Charleston, South Carolina, and William Henry Richards. By this time, Atsion boasted 15 to 20 dwellings, a Methodist church, and a furnace employing about 120 workmen. William and Maria Fleming continued manufacturing iron here until 1846. They opened a paper factory in 1851 which only operated three years before sinking under debt. William C. Patterson, of Philadelphia, renamed the place *Fruitland* after his purchase in 1862. His scheme to subdivide the old iron plantation into farms also collapsed. In 1871, Maurice Raleigh, of Philadelphia, inaugurated a cotton factory in the rebuilt mill. In 1892, Joseph Wharton, of Batsto fame, absorbed Atsion into his Pine Barrens empire. The Richards Mansion, general store and several related structures survive. Wharton State Forest administers the site.

Barnegat Lighthouse stands sentinel on the northern tip of Long Beach Island, overlooking Barnegat Inlet. A forty-foot lighthouse was constructed at Barnegat in 1834. Undermined by the encroachments of the sea, it toppled on November 2, 1856, and was replaced by the present light house, designed by Lieutenant George Gordon Meade, in 1858. With walls 10 feet thick, Barnegat Lighthouse rises 172 feet in height with a base diameter of 27 feet, tapering to 18 inches at the summit. The interior iron spiral staircase hangs upon a heavy iron pipe.

Lighthouse Keeper James Fuller first ascended the 217 steps to ignite its kerosene lamp on January 1, 1859. Its lens rotated by a hand-wound mechanism employing weights suspended on cords, much in the fashion of old clocks. It was threatened by erosion as early as 1866, and hundreds of tons of stone were dumped at its base. The light was reduced from 80,000 candlepower to 11,000 when a lightship was stationed eight miles offshore in 1927.

Between 1880 and 1885, erosional loss to the southern point of Barnegat Inlet was estimated at 120 feet per year. About 1925, heavy iron pilings were driven around the base of Barnegat Lighthouse and old automobiles and scrap iron were used to form a bulwark against the sea, but the tower continued to lean. The inlet migrated a half mile southward in only fifty years and, in 1940, extensive protective works were constructed to save "Old Barney." A coastal blackout, ordered by the War Department during World War II, darkened its light forever. Today, the original kerosene light-crown, designed by Parisian Henri Lepaute, with 24 bull's-eye lenses fashioned from 1,024 prisms, is displayed to the public. A bronze bust of Old Barney's designer, General Meade, stands watch at the entrance. Picnicking and ocean swimming are available. A seasonal parking fee is charged.

Barnegat is a Dutch place name, derived from *barning*, which means "a High sea on the shore," and *gat*, "a gateway, hole or gap." *Barning gat* would best be translated "an inlet along the ocean shore."

Batsto in Wharton State Forest is a Pine Barrens village composed of thirty-three historic buildings and structures, including the Batsto Mansion, gristmill, sawmill, general store, workers' homes and post office. Batsto Village was a former bog iron and glass making industrial center from 1766 to 1867 and currently reflects the agricultural and commercial enterprises that existed here during the ownership of Joseph Wharton in the late 19th century.

Joseph Wharton pumped new economic life into a community that otherwise would have vanished. Wharton spent \$40,000 on the mansion alone after buying it in 1876. He rebuilt the mansion as a summer residence in the Italianate style, reflecting his taste and times, and he experimented with cranberries, sugar beets and beef cattle. In 1882 he rebuilt the sawmill on the foundation of an earlier one, an investment that provided one of the more profitable village enterprises of the period. He also deserves mention in the history of the American Iron Age. From 1853 to 1863, Joseph Wharton was a stockholder and manager of the Pennsylvania & Lehigh Zinc Works of Gilbert, Wetherill, Baxter & Co., manufacturers of white zinc paint, situated in South Bethlehem, Pennsylvania. This company operated the first successful spelter works in the United States. In 1857, Wharton was a founder and director of the Saucon Iron Company which, in 1861, formed part of the Bethlehem Iron Company and subsequently the Bethlehem Steel Corporation. In 1864, he became the only American

producer of refined nickel, establishing a plant at Camden, New Jersey, that used Lancaster County ores. He also became a proprietor of the famed Andover Iron Company in the Coopertown section of Phillipsburg, New Jersey, when that mill was sold in 1868 by Cooper & Hewitt. A proponent of the protective tariff, he helped to found the Industrial League of Pennsylvania in 1868, the American Iron and Steel Association in 1875, and the Wharton School of Business at the University of Pennsylvania.

Batsto Mansion, post office and visitor center are open year round. The general store, gristmill, blacksmithy, wheelwright shop, sawmill and workmen's cottages are open seasonally.

Boxwood Hall, on East Jersey Street in Elizabeth, was built about 1750. It became the residence of Elias Boudinot, president of the Continental Congress, when the Peace Treaty with Great Britain was ratified. George Washington visited his friend Boudinot in 1789 on his way to New York for his first inauguration.

Cape May Lighthouse, at Cape May Point, stands 157 feet tall. Visitors who climb to the top can view the constantly changing Cape May peninsula shoreline. The first known lighthouse at Cape May was built in 1823, but had to be moved. The present lighthouse was built in 1859 at a cost of \$6,000. Mr. Smith, of Cold Spring, received the building contract. Considering the natural elevation of the site, its lantern shed a white flashing light visible for 18 miles at sea.

The **Central Railroad of New Jersey Terminal** in Liberty State Park, Jersey City, was built in 1889 at a cost of \$270,000. Its facilities were greatly expanded between 1912 and 1918. An umbrella-type train shed, designed by staff engineer, Joseph O. Osgood, was constructed of concrete in 1912, using wire-glass skylights by R. P. & J. H. Stats. In 1918, the construction firm of Charles T. Wills, Inc., rebuilt the four ferry slips with double decks and electrically-operated ferry bridges, according to Osgood's design. Most passengers used bridges connecting the upper ferry decks to the Upper Ferry Concourse, while vehicles passed to and from the ferry slip via the Lower Ferry Concourse. Side ramps connected the upper concourse to the train concourse and a large central staircase led to a general waiting room, flanked by additional waiting rooms and a restaurant. The train concourse at the west side of the Terminal communicated with twenty lines of track under the train shed.

A three-story, brick and steel frame building was con-

structed at the south side of the Terminal for a Post Office in 1914-15. The Postal Service leased 5,000 square feet on the first floor, while the second floor provided offices for the Central Railroad's Engineer, Supervisor of Mail Traffic and General Baggage Agent. The third floor of the Post Office Building housed offices of the Superintendent of Car Service.

From 1892 through 1954, the CRRNJ Terminal stood with the Statue of Liberty and Ellis Island to unfold one of this nation's most dramatic stories: the immigration of northern, southern and eastern Europeans, among others, into the United States. After being greeted by the Statue of Liberty and processed at Ellis Island, these immigrants purchased tickets and boarded trains at the Terminal to their new homes.

Clarke House, on Princeton Battlefield, was built by Thomas Clarke in 1772. The house was the scene of heavy fighting during the Battle of Princeton. Mortally wounded nearby, General Hugh Mercer was carried into the house, where he died nine days after the battle.

Craig House, on Monmouth Battlefield, was home to John and Ann Craig and their three children during the Battle of Monmouth. This 18th-century farmhouse served as a hospital for British casualties in June 1778.

Delaware & Raritan Canal State Park (Blackwells Mills Canal House, the Long House, Port Mercer Canal House, Prallsville Mills, Canal Road, Somerset) Nearly 36 miles of the main canal and 22 miles of the feeder canal still exist, with many associated historic structures, as a reminder of the days when the delivery of freight depended upon a team of mules or steam tugboats. Thirteen historic buildings, mainly locktenders' houses, associated with the Delaware and Raritan Canal, are listed on the NJ and National Registers of Historic Places.

Interpretive programs are mostly held at Somerset and Bull's Island. The Long House (formerly known as the Mule Tenders Barracks) will be used for interpretation in the future, but is currently under renovation.

Double Trouble Village, in Double Trouble State Park, probably owes its name to the confluence of two branches of Cedar Creek, which created a sufficient head and pondage of water for a sawmill, built on a six-foot fall at the outlet of a large pond, later named Cedar Creek Lake. Folklore, however, attributes the name to a colony of muskrats who weekly burrowed through the earthen dam. An old preacher and his wife had to summon neighbors to repair the breach. Once, when the varmints

dug through twice in one week, the preacher exclaimed, "Here's double trouble!" In later years, the place revived when the Double Trouble Cranberry Company employed migratory workers during harvest season. Cranberry production reached its zenith before the First World War. In 1909, 414 cranberry farms covering 9,030 acres in the State of New Jersey harvested 12,072,288 quarts.

Double Trouble Village contains fourteen historic structures, dating from the late 19th century through the early 20th century, including a general store, a school-house and cottages. The sawmill was restored in 1995, and the cranberry sorting-and-packing house was rehabilitated in 1996.

Fort Mott was erected in 1896 and named to honor Major-General Gersham Mott of the New Jersey Volunteers, a Burlington native who served with distinction during the Civil War. Fort Mott was outfitted with a battery of three twelve-inch disappearing rifles, two batteries of two five-inch rifles, two five-inch rapid-fire guns and five Gatling guns. It was originally garrisoned by Battery 1, 4th Artillery, on December 14, 1897. Together with neighboring Fort Delaware on Pea Patch Island, it protected the Delaware River during the Spanish-American War. The Fort was dropped from active duty in 1922 and abandoned in 1943. The State of New Jersey acquired the property in 1947 and dedicated it as a State Park in 1951.

Grover Cleveland Birthplace, on Bloomfield Avenue in Caldwell, was the Presbyterian parsonage where future President Grover Cleveland was born in 1837, while his father, the Reverend Richard Falley Cleveland, was the minister to the First Presbyterian Church of Caldwell. Most of the first floor rooms portray the house as it was in 1837.

The **Hancock House** was built by Judge William Hancock in 1734. In this noted example of patterned brickwork architecture, the date of construction and owner's initials are incorporated in the gable design, reading *W S H* and *1734*. The house stood beside Hancock's Bridge, the nearest span over Alloways Creek to tidewater at the time of the Revolutionary War. On March 20, 1778, a British force of about 270 infantry and 30 cavalymen massacred a detachment of twenty or thirty militiamen in William Hancock's dwelling. In the confusion, Mr. Hancock, a Loyalist, and his brother, were also mistakenly killed.

The **Hermitage** is a noted exemplar of the Gothic

Revival. Its original section was built in the mid-18th century and was visited by George Washington and his staff during the Revolutionary War. In 1845, the house was transformed by architect William Ranlett into one of the finest examples of Gothic Revival architecture in North America. The Hermitage is leased to the Friends of the Hermitage.

The **High Point Monument** was built through Anthony Kuser's donation of \$500,000 to erect a memorial on New Jersey's highest peak to honor New Jersey Veterans of all wars. The Hoffman Construction Company, of Bernardsville, began construction in August 1928. With the base of the monument completed, Governor Morgan F. Larson laid the cornerstone with a silver trowel on June 8, 1929. The High Point Veterans' Monument was dedicated to the "Glory and Honor and Eternal Memory of New Jersey's heroes by land, sea, and air, in all wars of our Country" on June 21, 1930.

As designed by architects M. S. Wyeth and F. R. King, the High Point Monument is a granite-clad obelisk, 218 feet tall, measuring 34 feet square at its base and 20 feet square where the apex begins. It is capped with a rock-faced dimension stone, 3 feet square, securely doweled to its supporting walls. The four corners of the shaft are built with rough hammer-dressed rock-faced quoins. A beacon originally shone through the four windows at the top and the exterior was lit by floodlights.

The obelisk surmounts a parapeted platform, 20 feet wide, reached by a broad staircase. Centered at the base of the shaft, bronze doors emblazoned with the Great Seal of the State of New Jersey open into an octagonal chamber about 21 feet in height with a patterned flagstone floor. The shaft with its hollow core rises above the concealed groined arched ceiling of the entry chamber. The shaft is faced with granite, but quartzite quarried in the Park was used for the back courses or filling.

The **Indian King Tavern**, on Kings Highway in Haddonfield, was partly built in 1750 by Philadelphia merchant Matthias Aspden as a two-and-a-half story brick dwelling with center-hall plan. Tavernkeeper Hugh Creighton purchased the house from Thomas Redman in May 1777. The New Jersey General Assembly met here while Trenton was occupied by British and Hessian troops. While sitting here on March 10, 1777, the Assembly approved the adoption of the Great Seal of New Jersey. Six months later, the Assembly met at the tavern and enacted a law substituting the word "state" for "colony" in all commissions, writs and indictments.

The **Johnson Ferry House** at Washington Crossing State Park is an early 18th-century gambrel roof farmhouse near the Delaware River. It was owned by ferryman Garret Johnson when General Washington crossed his army over the Delaware River on Christmas night 1776 for a surprise attack on the British and Hessian garrison at Trenton.

The **Long Pond Ironworks** was founded in 1766 and operated continually until 1882, making iron for a wide range of purposes. Today, the ruins of three furnaces and other unique structures remain in a beautiful setting within Long Pond Ironworks State Park near the New York border in West Milford, NJ.

Monmouth Battlefield was the scene of one of the largest battles of the American Revolution and the last great land battle in the northern States, fought on this ground on June 28, 1778. The military action included the most furious, sustained artillery barrage of the war, lasting several hours. The legendary Molly Pitcher is probably a composite tale, encapsulating the military services which several women rendered during the great afternoon bombardment at Monmouth. One recognized candidate for the legend is Mary Ludwig Hayes, wife of a fallen Pennsylvanian gunner, who brought water in a pitcher to his exhausted gun crew on that sweltering day.

The **Old Dutch Parsonage** on Washington Place in Somerville was built in 1751 and first occupied by Reverend John Frelinghuysen, who came from Amsterdam to serve three congregations of the Dutch Reform church in the upper Raritan Valley. The second occupant of the Parsonage, the Reverend Jacob Hardenbergh, founded Queens (Rutgers) College in 1766 while residing in the house.

Princeton Battlefield, on Mercer Road in Princeton, was the site of a desperate battle on January 3, 1777, where American troops under General George Washington surprised and defeated a force of British Regulars in what is considered to be the fiercest fight of its size during the American Revolution.

The **Princeton Battle Monument**, begun in 1908, is sculptor Frederic William MacMonnies' heroic depiction of "Washington Refusing Defeat at the Battle of Princeton," fashioned from 50 tons of Indiana limestone. President Warren G. Harding delivered the principal address at the dedication on June 9, 1922.

The **Proprietary House**, on Kearny Avenue in Perth Amboy, was originally a two-story, hipped-roof man-

sion, designed and built for the East Jersey Proprietors by English master builder John Edward Pryor in 1764, to serve as an official residence for the Royal Governor. Its first occupant was Chief Justice Frederick Smyth (from 1766 to 1771). New Jersey's last Royal Governor, William Franklin, son of Benjamin Franklin, occupied the house from 1774 until 1776, when he was arrested by the Continental Army.

A fire destroyed the roof and much of the interior in 1784. John Rattoon, a Perth Amboy merchant who served as a British spy and who later became Mayor of Perth Amboy, purchased it in 1794, undertaking extensive repairs. He sold it to Richard M. Woodhull in 1808, who added a third floor and south wing, transforming the house into one of America's first resort hotels, called the *Brighton*. After the War of 1812, the building served as a private residence, hotel, retirement home for Presbyterian ministers, and a rooming house.

The Proprietary House Association currently hosts educational programs for children about Governor Franklin, including a popular annual recreation of the arrest of Governor Franklin.

Ringwood Manor, the centerpiece of Ringwood Manor State Park, was built around the side-hall dwelling of Martin John Ryerson, who purchased the Ringwood Ironworks in 1807. The kitchen wing of the Ryerson House was converted to the present piazza at the west end of the Manor. Peter Cooper purchased the estate in 1853. His son-in-law, Abram S. Hewitt, first occupied the Ryerson House at Ringwood as a summer residence in 1857. The central portion of the Manor was built in 1863-64, with a large nursery on the second floor. Much of the furnishings and decor of the upper rooms in this section of the house remain unchanged from the time of their installation.

In 1878, a Paterson architect named Derrick renovated the east portion of the enlarged Hewitt residence, designing the Hall and supervising the manufacture of cherry columns and flooring at the Ringwood carpentry shop. A complete collection of small arms used by both sides in the Civil War, purchased by Mr. Hewitt from the Ordnance Department at war's end, is mounted there. At this time, Mrs. Hewitt had the Manor further enlarged by the attachment of several old frame buildings to the east end: these included the manager's house, a general store and even a chicken house, all associated with the old ironworks, which were dragged on rollers by horses and oxen and set upon new foundations abutting the Manor. Cooper Hewitt conceived the novel idea of uni-

fyng the rather diverse appearance of this architectural assemblage by application of stucco cement over wire lath to the exterior. The Colonial Revival porte-cochère was the final major improvement.

The old casting house of the Ringwood Furnace was transformed into a dairy in Swiss chalet style. In 1895, the brook and meadow below the Manor was impounded to form a large pickerel pond. A stone wall and massive gate posts were built at the estate's entrance. Abram Hewitt collected various specimens of historic ironwork for display in front of the Manor, including the forge hammer and anvil from the Long Pond Ironworks, gears and trip-wheel from Ringwood Forge, a length of Admiralty Buoy chain from New York Harbor, and a siege mortar of Civil War vintage.

Abram Hewitt died in January 1903. His widow continued to use Ringwood Manor as a summer residence until her death in August 1912. Their daughters, Sally and Nellie, inherited the Manor. Miss Nellie Hewitt died in November 1924 and Miss Sarah (Sally) Hewitt died in 1930, ending her family's residency. Their brother, Erskine Hewitt, presented Ringwood Manor to the State of New Jersey in 1938.

Rockingham was the farmstead of the widow of Judge John Berrien, rented by the Continental Congress, which was then meeting at Nassau Hall in nearby Princeton, for the use of General George Washington, who occupied the dwelling from August 23 to November 10, 1783. Martha Washington joined him at Rockingham.

Skylands Manor and the State Botanical Garden are part of Ringwood State Park. Architect John Russell Pope designed Skylands Manor in English Jacobean style for Clarence McKenzie Lewis, a stockbroker and civil engineer. Built in the 1920s of native stone and half-timbers, the picturesque mountaintop mansion has 44 rooms. The garden is a culmination of two eras of landscape architecture under the direction of Francis Lynde Stetson, owner of Skylands from 1891 to 1922.

Somers Mansion on Shore Road in Somers Point was built about 1725 by Richard Somers. Believed to be the oldest extant house in Atlantic County, it boasts a two-room plan, Flemish-bond brickwork and gambrel roof. Somers operated the first ferry across Great Egg Harbor Bay.

The **Steuben House** on Main Street, River Edge, is the historic centerpiece of **Historic New Bridge Landing**.

This most famous example of Jersey Dutch sandstone architecture, built by Jan Zabriskie, Senior, in 1752, faced a strategic oak drawbridge at the narrows of the Hackensack River. When British invaders forced the hasty withdrawal of the American garrison of Fort Lee on November 20, 1776, the New Bridge allowed the Americans to escape from entrapment and defeat on the narrow peninsula between the Hudson and Hackensack Rivers. Thomas Pain immortalized the crossing in his *American Crisis*, beginning with the immortal refrain: "*These are the times that try men's souls.*"

Jan Zabriskie's stone house served as a fort to defend the strategic river crossing and as a military headquarters throughout the American Revolution. Deadly skirmishes echoed about its walls and consuming armies camped upon its fields. From quarters here, reconnaissance parties scouted enemy movements, picked up deserters and gathered military intelligence. Jan Zabriskie, a wealthy miller and merchant, was a Loyalist who assisted the British army. He was arrested in July 1777 and afterwards fled to Manhattan. The State of New Jersey confiscated his house and lands in January 1780. Washington made his headquarters in the Zabriskie House at New Bridge in September 1780.

The State of New Jersey presented the use and income of the confiscated Zabriskie estate at New Bridge to Major-General Baron von Steuben, Inspector-General of the Continental troops, in December 1783. In 1785, the property was occupied by Captain Benjamin Walker, Steuben's aide-de-camp. General Steuben sold the Zabriskie mansion, "thoroughly rebuilt lately," to Jan Zabriskie, son of the Loyalist, in 1788.

The **Historic New Bridge Landing Park Commission** was established by legislation (PL. 1995, Chapter 260) in 1995 to coordinate and implement federal, State, county, municipal and private development policies and other activities incidental to the preservation, maintenance, restoration and interpretation of historic buildings, structures, sites and features of Historic New Bridge Landing, so as to develop and promote their optimal educational and recreational benefit to the public. The Commission consists of a representative from the County of Bergen, a representative from the Blauvelt-Demarest Foundation, a representative from the Borough of River Edge, a representative from the Borough of New Milford, two representatives from the Bergen County Historical Society, and two representatives from the Township of Teaneck. The Director of the Division of Parks and Forestry is the ninth member.

The **Trenton Battle Monument** on South Warren Street in Trenton marks the site of the American artillery emplacement that commanded the streets of Trenton during the battle that led to the defeat of the three Hessian Regiments by the American Army at the Battle of Trenton, December 26, 1776. The monument is fashioned of white granite from Hallowell, Maine, according to the design of John H. Duncan of New York City, architect of Grant's Tomb at Riverside Park and the Soldiers' and Sailors' Arch in Brooklyn. It consists of a hollow Roman Doric column with an observatory in the cap. It rests upon a concrete foundation, 19 feet deep, with the base of the pedestal measuring 29 feet, 8 inches square. Overall, the monument rises 150 feet above street level and weighs four million pounds.

William Rudolf O'Donovan, of New York City, sculpted the bronze statue of General Washington, which was cast at the National Art Foundry of New York City. The statue is 13 feet tall, or double life-size. The Commander-in-Chief is represented in the act of ordering Colonel Alexander Hamilton's artillery battery into action, his right hand pointing down Warren Street at the Hessians and his left hand holding his field-glass.

Thomas Eakins, of Philadelphia, designed the four bronze tablets in low relief, depicting scenes from the Battle of Trenton, namely: a historical tablet presented by the Society of Cincinnati of New Jersey; "The Continental Army Crossing the Delaware," contributed by the State of Pennsylvania; "The Opening of the Fight," presented by the State of New York, depicting Captain Alexander Hamilton and his New York artillery, mounted in the panel above the entrance; and "The Surrender of the Hessians," presented by the State of Connecticut, to honor four Connecticut regiments that participated in the battle.

A statue of Blair McClenachan, of the Philadelphia Troop of Light Horse, and presented by the Philadelphia Light Horse, stands to the right of the entrance door, while a statue of John Russell, of Col. John Glover's Fourteenth Regiment of the Massachusetts Continental Line, stands to the left. These figures, presented by the citizens of their respective States, are authentically equipped.

The Trenton Battle Monument was dedicated October 19, 1893, before a crowd of 20,000. Eight governors were present among a throng of dignitaries. Governor George T. Werts, of New Jersey, made the closing address. Major-General W. J. Sewell commanded a military parade of 5,000 soldiers for the occasion.

The **Twin Lights** of the Navesink Light Station on Lighthouse Road in Highlands mark the seaward approach to New York Harbor, standing 195 feet above the sea on Beacon Hill, a bold promontory of the Navesink Highlands. As the sandstone towers are 53 feet tall, the focal plane of their beacons had an elevation of 248 feet above sea level, making them the highest on the Eastern Seaboard. Reportedly, the Twin Lights could be seen nearly sixty miles at sea.

The present sandstone building was constructed in 1862. Though called twins, the south tower is actually square while the north tower is octagonal. They stand 228 feet apart, being connected by the light-keeper's dwelling. Oil lamps in the south tower, with 60,000 candle-power, were replaced in 1898 by the first electric lamp used in a United States lighthouse, illuminating the most powerful Fresnel lens on the continent. Of French construction, its electric light flashed at five-second intervals. Exhibited at the Columbian Exposition in Chicago, it was purchased by Captain W. S. Schley, U. S. N., then chairman of the Light House Board. The engine that provided power consumed only one and seven-eighths gallon of oil per hour. There were two fair-sized dynamos and two oil engines; one set was always kept in reserve. The tremendous candle power was developed by means of a great revolving lens, weighing seven and a half tons, seven inches thick, and resting in mercury.

The **Wallace House** on Washington Place in Somerville was built in 1776 for John Wallace, a successful Philadelphia merchant, and known as the Hope Farm. General Washington leased the house for use as his headquarters during the Middlebrook Winter Encampment, December 11, 1778, to June 3, 1779. The house is one of the best and most original examples of Georgian architecture in New Jersey.

The **Walt Whitman House** on Mickle Boulevard in Camden was home to the renowned poet from 1884 until his death in 1892. Whitman's visitors included the painter Thomas Eakins and naturalist John Burroughs. The house is furnished with a number of pieces owned and used by Whitman.

The City of Camden took over the poet's Mickle Street house in 1923 and appointed an Advisory Committee called the Walt Whitman Foundation. The furniture belonging to Mary Davis, Whitman's resident house-keeper, was later purchased from her West Street residence by an Advisory Committeewoman and returned to the Mickle Street house. Beginning in 1925, the State

of New Jersey made an annual contribution to the maintenance of the Walt Whitman House and Foundation. In 1947, the City of Camden transferred ownership to the State of New Jersey. To facilitate public use of the site, the adjacent brick townhouse was purchased by the State in 1951.

Washington Crossing State Park occupies the historic ground where General George Washington and the Continental Army landed at Johnson's Ferry, after crossing the icy waters of the Delaware River on December 25, 1776. The restored Johnson Ferry House is open to the public. The visitors center displays the outstanding Swan collection of Revolutionary War relics.

Waterloo in Allamuchy Mountain State Park is an intact inland port of the Morris Canal, including an Inclined Plane and guard lock, surrounded by the Smith family's grist-and-saw mills, general store, blacksmith shop, residences and tenements. The village prospered as the southern terminus of the Sussex Railroad from 1854 to 1902, at its intersection with the Morris & Essex Railroad (later the Delaware, Lackawanna & Western). It occupies a scenic water power on the Musconetcong River and the former site of the Andover Forge (1760-1795). The village is operated by the Waterloo Foundation.

Whitesbog was an active 19th and 20th-century cranberry and blueberry producing community. Joseph J. White founded this company town in the 1860s. Elizabeth White developed the commercial high-bush blueberry here. Once a thriving town and one of the largest cranberry farms in the state, the now silent village examples the changes in agriculture in this State. The site is undergoing restoration and is leased to the Whitesbog Preservation Trust, a nonprofit organization dedicated to the restoration of the village.

The White family began farming Whitesbog in the 1860s. The J. J. White Company continues to harvest cranberries in the area today. The sandy soil of the Pine Barrens is ideal for the production of both cranberries and blueberries. Each year, families from the South Jersey area and Philadelphia would come to Whitesbog to live in the company town.

Elizabeth White, the eldest of the four White daughters, became a figure of international importance in the agricultural world. In the early 20th century she began working on the cultivation of a better tasting blueberry with Dr. Coville, of the U. S. Department of Agriculture, collecting samples from local people until she developed the waxy dark tinted blueberry that is now the standard.

Today, the company town survives as a New Jersey State Historic Site. Along with the workers' cottages, company stores, and parking and storage building, Elizabeth White's home *Suningive* survives. The home served as her laboratory and office. In her backyard were cranberry bogs and experimental blueberry fields. Along side the house she created a garden of native plants that received international recognition for its beauty and innovation.

Natural Resources and Interpretation

The Natural Areas Section was established within the Division of Parks, Forestry and Recreation in 1961 with two missions: (1) to develop and oversee nature interpretive programs in State parks, forests, recreational areas and natural areas, and (2) to develop an overall Natural Area system through the Natural Areas Council. The Natural Lands Trust was established in 1968 to preserve, interpret, and administer Natural Areas.

Due to a lack of personnel, the Natural Areas Section was unable to fulfill its mission and interpretive programs became the responsibility of individual field areas. Each area either adopted their own plans for interpretation or allowed their programs to evolve without direction, causing their interpretive efforts to vary greatly throughout the system. New legislation called for the establishment of a Natural Areas system in 1976 and the Natural Areas Section was re-organized as the Office of Natural Areas in 1978. It assumed responsibility for managing Natural Areas and retained some responsibility for overseeing naturalist interpretive programs.

The Office of Natural Areas provided program direction and oversight for all environmental education programs on public lands, owned and operated by the State, from 1978 until 1983. In that year, the Office of Natural Lands Management was created and the Office of Natural Areas, for the first time, was able to give its complete attention to the environmental education program of the State Park Service and related programs. An Office of Technical Services was established to provide long-range direction for the overall State Park Service environmental education and naturalist interpretive programs, promoting system-wide consistency and continuity.

The Office of Technical Services oversaw the environmental interpretation programs and facilities of the State Park Service, including interpretive centers, trail-side museums and information centers. It was to provide

long-range planning, establishing overall goals, objective themes, and conceptual designs. It was further intended to conduct program analysis to determine cost efficiency and visitor effectiveness. It also had the responsibility of insuring that all presented materials were consistent with the key features of the areas and seeing that visitors received the same quality programs throughout State Park Service areas. To accomplish these goals, the Office was to continually analyze naturalist interpretive programs and to evaluate interpretive staff skills. This became the Office of Visitor Services and Program Support.

The Division of Parks and Forestry currently offers nature programs at the following parks and forests:

Allaire State Park: guided nature walks, historic heritage programs, butterfly walks, program on caterpillars, nature scavenger hunts, bird watching programs, composting basics, birdseed ornaments.

Barnegat Light State Park: Campfire program.

Belleplain State Forest: interpretive programs and activities, astronomy programs, National Trails Day hike, Haunted hayrides, Trails Appreciation and Volunteer Work Day, and survival training workshop.

Bull's Island Recreation Area: bird watching programs, campfire program, Halloween Fest, making bird feeders.

Cape May Point State Park: guided nature walks, Earth Day activities, programs on turtles and horseshoe crabs, hawk-banding demonstrations, and animal drawing for children.

Cheesequake State Park: astronomy programs, outdoor camping skills demonstration, backpacking basics, guided nature walks, leaf identification, herb gardening; nature photography, Project Wild workshops, Project Learning Tree workshops, Earth Day activities, Arbor Day activities, taxidermy workshop, bird-watching programs, turtle and crab programs, National Trails Day hike, watershed and salt marsh programs, Raritan Bay heritage programs, compass-skills programs, butterfly gardening, fall foliage hike, forest fire ecology, Lenni Lenape traditions, and a New Year's Hike.

Delaware and Raritan Canal State Park: guided nature walks, plant identification, nature scavenger hunt, campfire program, nature crafts programs, National Trails Day hike, insect programs, compass-skills program.

Fort Mott State Park: astronomy programs, Earth Day activities, and a Fall Foliage/Maritime History Cruise.

Hacklebarney State Park: Fall Colors Walk, conifers walk.

High Point State Park: lectures, interpretive hikes and programs, preschool programs for fledgling naturalists, guided nature walks, guided kayak and canoe trips, astronomy programs, bird-watching programs, Mother's Day walks, beaver hike and programs, insect and butterfly programs, mushroom hike, survivalist skills, National Trails Day hike, live-animal programs, foliage hike, autumn scavenger hike, guided cross-country ski tours, winter plant identification, Winter Trails Snow Shoe Event.

Island Beach State Park: Sedge Island canoe/kayak trips, native plant gardening program, astronomy programs, bird-watching programs, plant identification programs, Beach Plum festival, youth fishing tournament, outdoor woman surf-fishing program.

Jenny Jump State Forest: astronomy program.

Kittatinny Valley State Park: astronomy programs, children's story time, junior naturalist programs, survival skills, nature crafts, guided nature walks, trail hikes, horse rides, bird-watching programs, tree identification and butterfly programs, bike rides, fly fishing clinic, bear's life program, Forestry field day activities, Labor Day hike, compass-skills program, fall foliage hike, kayak trips, Historical Ghost Hike, 30-mile full trail hike, New Year's Eve Horse Ride, New Year's Day Hike, and cross-country skiing.

Liberty State Park: lectures, nature cinema, interpretive history and nature programs, bird watching programs, Earth Day activities, estuary walks and waterfowl programs.

Parvin State Park: story time and activities, nature crafts, guided walks, bird watching programs, National Trails Day hike, and forest hayride.

Ringwood Manor State Park: guided tours, children's spring activities, Earth Day activities, Project Wet Professional Development Workshop for Educators.

Round Valley Recreation Area: trail walks, geology and water-supply history, canoeing demonstrations, bird-watching programs, watershed programs.

Skylands Manor: gardening workshops, guided tours and walks, fall flower-arranging workshops, wreath-making workshops, and a winter tree walk.

Spruce Run Recreation Area: sailing classes.

Swartswood State Park: nature crafts, nature knowledge interactive programs, guided nature walks, watershed programs, waterfowl identification programs, live-animal programs, trail hikes, lake ecology kayak trips, and a program on reptiles.

Voorhees State Park: astronomy programs, fall colors walk, animal tracking, and a conifers walk.

Wharton State Forest: astronomy programs, guided nature walks, Pinelands nature hikes, Earth Day activities, Project Learning Tree Educators' Workshop, Pinelands fall Colors Hike, and a Halloween party.

Whitesbog: blueberry festival, cranberry harvest tour, sunset hayride and campfire-story program, and a moonlight walk.

Worthington State Forest: astronomy programs, bird watching programs, tree identification programs, guided nature walks, story-time activities, nature arts-and-crafts programs, Mother's Day activities, Father's Day activities, compass-skills programs, campfire programs, river ecology programs, Hemlock Trail treasure hunts, programs on bats, snakes, and hawk migration, and nature slide shows.

Interpretive Centers

The Division of Parks and Forestry currently administers interpretive centers, facilities, or trails, at the following locations:

1. **Allaire:** interpretive center, visitors center/museum, nature center.
2. **Barnegat Lighthouse State Park :** interpretive trail.
3. **Belleplain State Forest:** interpretive center, programs; observatory site of South Jersey astronomy clubs.
4. **Cape May Point State Park:** a key site on the NJ Coastal Heritage Trail, with an environmental center that houses a classroom for interpretive programs and a museum on the area's natural and historic features.

5. **Cheesequake State Park:** Exhibits at the interpretive center trace the area's evolution since the early 17th century. With easy access to nearby salt marshes, white cedar swamp, upland forest and a freshwater pond, the center is the perfect place to interpret human interaction with the natural environment. Along with live exhibits of fish and turtles, programs and videos describe the different ecosystems in the park. The interpretive center is open from Wednesday to Sunday, 8 PM to 4 PM, year-round.

6. **Double Trouble State Park :** self-guided trail.

7. **Delaware and Raritan Canal State Park:** the Long House /Canal Museum is undergoing renovations.

8. **Forest Resource Education Center (FREC):** Programs, Project Learning Tree activities, and outdoor classroom. The ABC Arboretum is a living tree classroom with trees planted for each letter of the alphabet and arranged in alphabetical order. The NJ Forestry Learning Deck is a platform in the shape of New Jersey with the major rivers and streams etched into the surface. Project Learning Trail is a 4-mile trail system, highlighting the diverse ecology of the New Jersey Pinelands. These educational resources can be used as part of the Seeds to Trees program; Fall Forestry Festival; and Spring Conservation Volunteer Day.

9. **Fort Mott State Park:** Self-guided tour with interpretive signs, NJ Coastal Heritage Trail welcome center.

10. **High Point State Park:** Visitors center; some exhibits in park office.

11. **Island Beach State Park:** Interpretive center, canoe trips, programs.

12. **Jenny Jump State Forest:** consortium observatory site, self-guided tour brochure on glacial features. The United Astronomy Clubs of New Jersey, Inc., established their observatory site near the Pinnacle of Jenny Jump Mountain, at an elevation of 1106 feet, in July 1993, taking advantage of one of the few remaining dark sky sites in New Jersey. This umbrella organization for fourteen astronomical groups, has their headquarters in a three-bedroom house on the former MacVicar property, outfitted with office space, a meeting room, lecture hall, library and bunk rooms.

13. **Lebanon State Forest:** The Pinelands Institute for Natural and Environmental Studies (PINES) provides programs.

14. **Liberty State Park:** Interpretive Center with environmental and historical exhibits that focus on the changing Hudson River and the surrounding area and the CRRNJ Terminal.

15. **Longpond Ironworks State Park:** The “Old Country Store” has been renovated and now houses the Long Pond Ironworks Museum.

16. **Monmouth Battlefield State Park:** Interpretive center/visitor center; battlefield wayside exhibits in development.

17. **Parvin State Park:** Interpretive center.

18. **Rancocas State Park:** The Audubon Society operates a nature center within the park and sponsors wildlife programs.

19. **Stokes State Forest:** Self-guided tour booklet on natural and historic features of note.

20. **Twin Lights State Historic Site:** Lighthouse, interpretive center and museum.

21. **Voorhees State Park:** the Paul H. Robinson Observatory.

22. **Washington Crossing State Park:** The outstanding feature of the museum/visitor center is the Swan collection, comprising a living military history laboratory of the American Revolution. Over 700 original objects interpret the era, circa 1745 through 1789. Outdoor education programs are offered for schools, youth groups, community organizations and visitors to the park. Programs include amateur astronomy observations, shelter building and wilderness survival skills, nature scavenger hunts, holiday wreath making, maple-sugaring.

23. **Wharton State Forest:** Combined visitors center, exhibit gallery, museum shop, interpretive center at Batsto

Environmental Education Centers in or adjacent to State Parks:

Several independent environmental education centers, staffed and administered by educational institutions or environmental associations, operate on or adjacent to our State Parks and Forests.

THE NEW JERSEY SCHOOL OF CONSERVATION

Founded in 1949 and operated by Montclair State University since 1972, the New Jersey School of Conservation (NJSOC) is the oldest and largest university-operated environmental education field center in the nation. Its programs provide students with a greater understanding and appreciation of Earth's life support systems and the impact human actions are having on them. The 53 environmental education programs, delivered by three faculty and five graduate teaching assistants, provide field experiences in the environmental sciences, humanities, outdoor pursuits, and the social sciences. Each academic year the NJSOC provides environmental education programs for nearly 9,000 elementary/secondary school students, and nearly 1,000 teachers from about 100 schools. There are also several field courses provided for graduate students. In addition, there are weekend workshops held each academic year designed to train pre-service and in-service teachers and youth leaders in environmental education curriculum development and field techniques for programs in environmental education. The workshops are held in October, February, and May.

The New Jersey School of Conservation occupies a 240-acre campus on the shores of Lake Wapalanne in Stokes State Forest. Civilian Conservation Corps Company #1266-S71 constructed the group camp at Skellinger Lake in Stokes State Forest in 1939-41, including sleeping quarters, wash house and infirmary, an administration building, latrines, mess hall, craft-house, water-system pipe lines and reservoir. The Skellinger dam was raised in 1941, forming Lake Wapalanne. Three of the original twelve group cabins on its eastern shores still survive. The old mess hall, known as Kittatinny Hall, is an outstanding example of CCC park architecture, boasting a large rustic stone fireplace with a heavy wooden mantle.

School of Conservation presently has sleeping facilities for up to 240 and family-style dining in two dining halls for up to 220. Two boat docks with rowboats and canoes, an archery range, extensive hiking trails, the historic Degroat Log House, built in 1860, a carriage house built in 1813, an observatory, and a library are special features of the campus. Due to its remote location and, therefore, absence of light pollution, the NJSOC is a favorite location for many astronomers. Researchers from other institutions, such as Rutgers and Hofstra, have used it as a base station for ecological studies. Opportunities for scientific studies of flora and fauna

and both terrestrial and aquatic ecosystems on the NJSOC campus as well as in Stokes State Forest are extraordinary.

THE HACKENSACK MEADOWLANDS ENVIRONMENTAL CENTER

The Hackensack Meadowlands Environmental Center features a diorama depicting an Urban Salt Marsh, comprised of a 1,000-gallon brackish creek terrarium with live animals, such as grass shrimp, diamondback terrapin, snapping turtles, fiddler, mud and blue crabs, and others common to these waters as well as mounted wetlands mammal and bird specimens. The Trash Museum utilizes creative displays to promote an awareness of environmental problems, particularly the trash crisis. A computer station offers learning games about the environment.

A third gallery features a History Exhibit, reflecting on the important events in the growth and development of the Hackensack Meadowlands. A Bird Watcher's Bulletin tells about the most recent bird sightings in what is a vital migratory rest stop for thousands of ducks, geese, and shorebirds.

The glass-enclosed Visitors Center extends out into the marsh, offering a panoramic view, perfect for viewing wildlife. A long network of boardwalks carry visitors through the cattails and salt marsh of the Meadowlands.

The Hackensack Meadowlands Environmental Center offers school programs for first through twelfth grades and for college classes. School programs include: *Incredible Insects* (first through third grades); *Ecology of an Estuary* (second through twelfth grades); *Paws and Claws* (third through fifth grades); *Wonderful Wetlands* (eighth through college). *Wonderful Wetlands* is an outdoor program lasting four hours and is limited to 14 participants. Most other programs last about 90 minutes and can accommodate a larger class.

THE WEIS ECOLOGY CENTER (NEW JERSEY AUDUBON SOCIETY)

The New Jersey Audubon Society maintains the Weis Ecology Center on Snake Den Road, Ringwood, on 160 acres, adjacent to Norvin Green State Forest. Walter and May Weis purchased this tract in 1974 to preserve land for the purpose of environmental education. The Weis Ecology Center merged with the New Jersey Audubon Society in September 1995, becoming part of their

statewide sanctuary system. The Nature Center provides free trail maps to diverse locations on their property and to the adjacent Norvin Green State Forest. Its nature store sells books, bird feeders and bird houses, hiking supplies and maps. There are dormitory facilities providing overnight programs, including night walks, for school and scout groups. The Weis Ecology Center also offers wooded campsites and rustic cabins for rental by reservation. The grounds have aviary houses for permanently injured birds of prey. There are also butterfly and songbird meadows.

The Weis Ecology Center offers a diverse selection of educational programs for organized groups and the general public. Day programs offer environmental education programs to students and scouts, using the natural settings surrounding the Center for outdoor classrooms. Outreach programs, including live animals, are available to libraries, schools, scout meetings and other special events. Birthday parties are scheduled for the picnic pavilion and include a one-hour long program.

On-site school and scout programs include: *Bird Basics* (games and activities including bird nest building and bird watching); *Compass Skills, Freshwater Life* (collecting and identification); *Group Challenges* (cooperation and communication skills); *Interesting Insects* (identification and outdoor search); *Interpretive Hikes* (to Blue Mine Falls, High Point, Chikahoki Falls and other sites in Norvin Green State Forest); *Iron Mine Study* (cave exploration); *Maple Sugaring* (February and March); *Orienteering* (compass and map skills); *Sensory Adventure* (animal senses and survival); *Survival/Shelter Building*; *Talking Trees* (inner workings and identification); *Welcome to the Forest* (short hike); *Wildlife Ecology* (insects to mammals); and *Woodland Ecology* (hands-on look). Evening programs for residential groups include: *Campfire Potpourri* (songs, tales and campfire activities); *Owl Prowl* (discussion and walk); and *Sensory Night Walk* (woodland walk with sensory activities). Off-Site Programs include: *Hunters in the Sky*; *Snakes Alive*; *All About Owls*; and *Meet the Wildlife of New Jersey*.

RANCOCAS NATURE CENTER (NEW JERSEY AUDUBON SOCIETY)

The New Jersey Audubon Society operates the Rancocas Nature Center on Rancocas Road, Mount Holly. The 130-year-old farmhouse is set upon 120 acres of pristine land adjacent to Rancocas State Park. The museum interprets the natural history of New Jersey and the Rancocas Valley and features two- and three-dimensional exhibits, formal interpretive displays, live animals, and

objects for hands-on discovery. A wide variety of adult programs and workshops, as well as lectures and film presentations are offered in a 40-seat classroom. Self-Guiding Trails radiate out from the Center's grounds into Rancocas State Park, crossing such diverse habitats as thickets, conifer plantations, upland woods, oak-pine forest, flood plain forest, and freshwater marshes along Rancocas Creek. These trails provide first-hand lessons on the environment and wildlife.

Programs for school groups include: *Nature Discovery Box* (preschool through first grade) introduces youngsters to new discoveries in the world of nature; *Owls: Whoooo They Are!* (first through sixth grades) explores the world of these nocturnal birds through sight, sound, and touch; *Beaks, Wings, and Birdy Things* (third grade and up) examines the difference between birds and other animals, as well as the differences between birds themselves; *SSSSSnakes!* (third grade and up) is a hands-on program that gives new insight into these misunderstood creatures; and *Is Anybody Home?* (first through fifth grades) is a Center-only program that includes a variety of activities that show children the needs of animals in their own environments.

New Jersey Audubon Society Centers:

The New Jersey Audubon Society, founded in 1897, fosters environmental awareness and a conservation ethic among Jersey's citizens, protects New Jersey's wild life, especially rare or endangered species, and promotes preservation of valuable natural habitats. The Society's environmental education centers offer an interesting variety of interpretive facilities and programs, including interpretive exhibits, mounted specimens and other collections, curriculum materials, natural history bookstores, outdoor-classroom experiences, natural history programs and workshops, school and group programs, nature trail systems, birding field trips, butterfly gardens, wildflower meadows, model backyard habitats, observation windows, aquaria, and day camps. Other than the Weis Ecology Center and Rancocas Nature Center, the Society operates: the Plainsboro Preserve (631 acres) on Scotts Corner Road in Plainsboro; the Scherman-Hoffman Sanctuary (260 acres) on Hardscrabble Road in Bernardsville; the Nature Center of Cape May on Delaware Avenue in Cape May; the Cape May Bird Observatory, comprised of the Anne Northwood Center on Lake Lily in Cape May Point and the Center for Research and Education (Bernice All Barbour Wildlife Sanctuary) on Route 47, north of Goshen; the Owl Haven Nature Center, located in the Cobb House on

Monmouth Battlefield State Park (but presently relocating to Sandy Hook); and the Lorrimer Sanctuary (14 acres) on Ewing Avenue in Franklin Lakes. Each of the New Jersey Audubon Society's staffed centers has its own personality, shaped by the uniqueness of its setting.

Environmental Education Facilities in NJ:

For the purposes of planning, it is important to know the location and scope of other environmental education facilities throughout the State. While these facilities are not staffed or managed by the Division of Parks and Forestry, they do represent valuable resources in a variety of ecological settings, offering public educational and recreational programs through professional staff and knowledgeable volunteers.

The **Cooper Environmental Center** features a 5,000 square foot building with an 80-seat meeting room, major exhibit area, and various work areas. It is located on Cattus Island, fronting Silver and Barnegat Bays in Toms River.

The **Environmental Education Center** on Lord Stirling Road in Basking Ridge is located upon 425 acres of the Great Swamp Basin,

The **Flat Rock Brook Nature Center** on Van Nostrand Avenue in Englewood is located upon 150 acres of unspoiled native woodlands.

The **Great Swamp Outdoor Education Center** on Southern Boulevard in Chatham Township is located on 40 acres adjacent to the Great Swamp National Wildlife Refuge.

The **Greenbrook Sanctuary** occupies 165 acres atop the Palisades, offering nature center programs and trails for members only.

The **James A. McFaul Environmental Center** on Crescent Avenue in Wyckoff is an 81-acre environmental center that offers environmental education to the general public, as well as to groups of all kinds.

The **Buttinger Nature Center** and Demonstration Organic Farm is part of the Stony Brook-Millstone Watershed Association's 585-acre Reserve in Pennington.

The **Tenaflly Nature Center** on Hudson Avenue, Tenaflly, is an environmental education facility which operates contiguous with the 330-acre Lost Brook Preserve.

The **Trailside Nature & Science Center** on New Providence Road in Mountainside, operated by the Union County Department of Parks and Recreation, is located in the 2000-acre Watchung Reservation. The Trailside Museum is advertised as New Jersey's first nature center.

The **Warren E. Fox Nature Center** on State Highway 50 in Mays Landing is located in Estell Manor County Park.

The **Wells Mills Nature Center** on Wells Mills Road in Waretown is centered within the 900 acres of Wells Mills, Ocean County's largest park.

The **Wetlands Institute** on Stone Harbor Boulevard in Stone Harbor has evolved into one of the most complete facilities of its kind in the Northeast, including an education center with saltwater aquaria; exhibits depicting life in the salt marsh, and an observation deck; a children's discovery room with games and exhibits; a meeting room featuring wildlife art and window walls that overlook the marshes, including an osprey nest; an observation tower and a salt marsh trail.

The **Woodford Cedar Run Wildlife Refuge** on Sawmill Road in Medford is located in a wildlife refuge of 184 acres on the western edge of the New Jersey Pine Barrens.

Issues and Influences

The conveyance of any interpretive message remains a constant struggle in today's world of mass entertainment, cable television, the internet, and ever more seamless "digital realities". These technologies, with their sophisticated nature shows and historical dramatizations, put historic site and park interpretive programs in direct competition for viewers' attention. One advantage of heritage interpretation over both classroom and screen experiences remains the direct appeal of the resource and the inherent quality and value of a first-hand experience of the resource.

Writing on *Interpretation in the National Park Service: A Historical Perspective*, Barry Mackintosh observes that:

"Generally speaking, historical parks need interpretation more than natural and recreational parks do. Natural parks, typically encompassing spectacular or outstandingly scenic natural features, may be enjoyed aesthetically by most visi-

tors regardless of whether they understand the geologic or biologic phenomena underlying them. Relatively few visitors to parks established primarily for active recreation are receptive to interpretive programs. But although many historical parks have aesthetic appeal and some accommodate active recreation, few can be greatly appreciated without some explanation of who lived or what occurred there. At historical parks, too, altered or missing features are often restored or reconstructed to better 'tell the story.' In far greater proportion than at parks established for other purposes, the [National Park] Service's task at its historical areas — indeed, the basic rationale for its involvement with such areas — is interpretation."