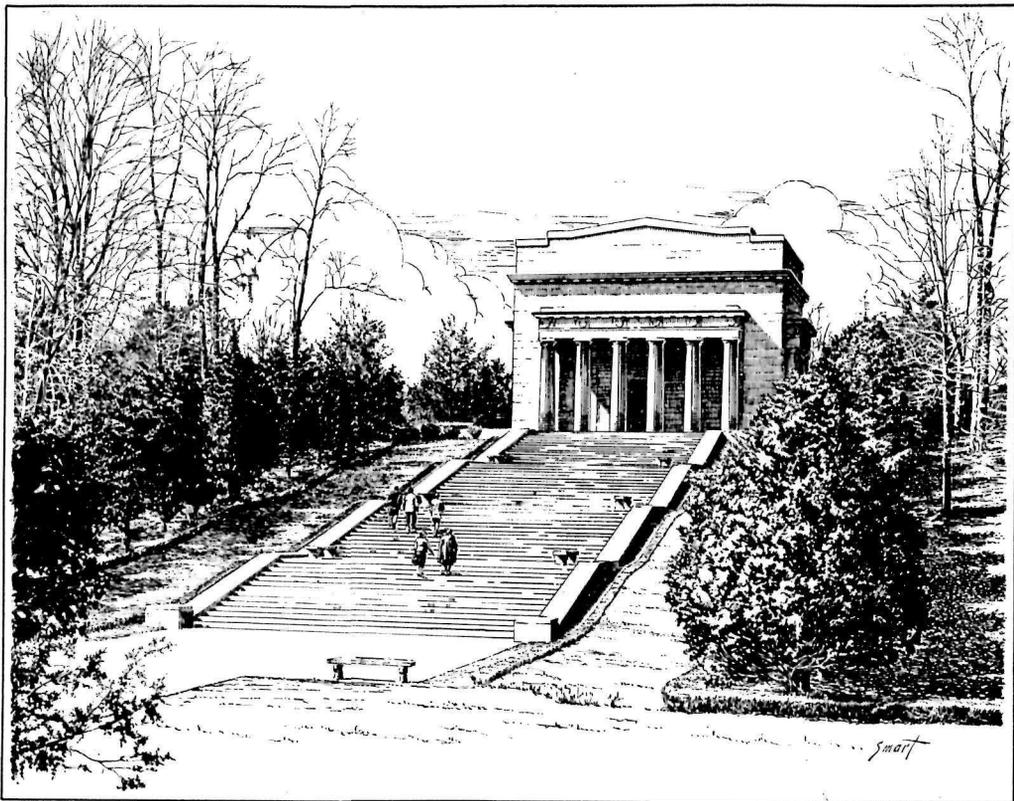


# THE REGIONAL REVIEW



ABRAHAM LINCOLN NATIONAL PARK

KENTUCKY

## NATIONAL PARK SERVICE REGION ONE RICHMOND VIRGINIA

FEBRUARY 1939

VOL. II - NO. 2

# THE REGIONAL REVIEW

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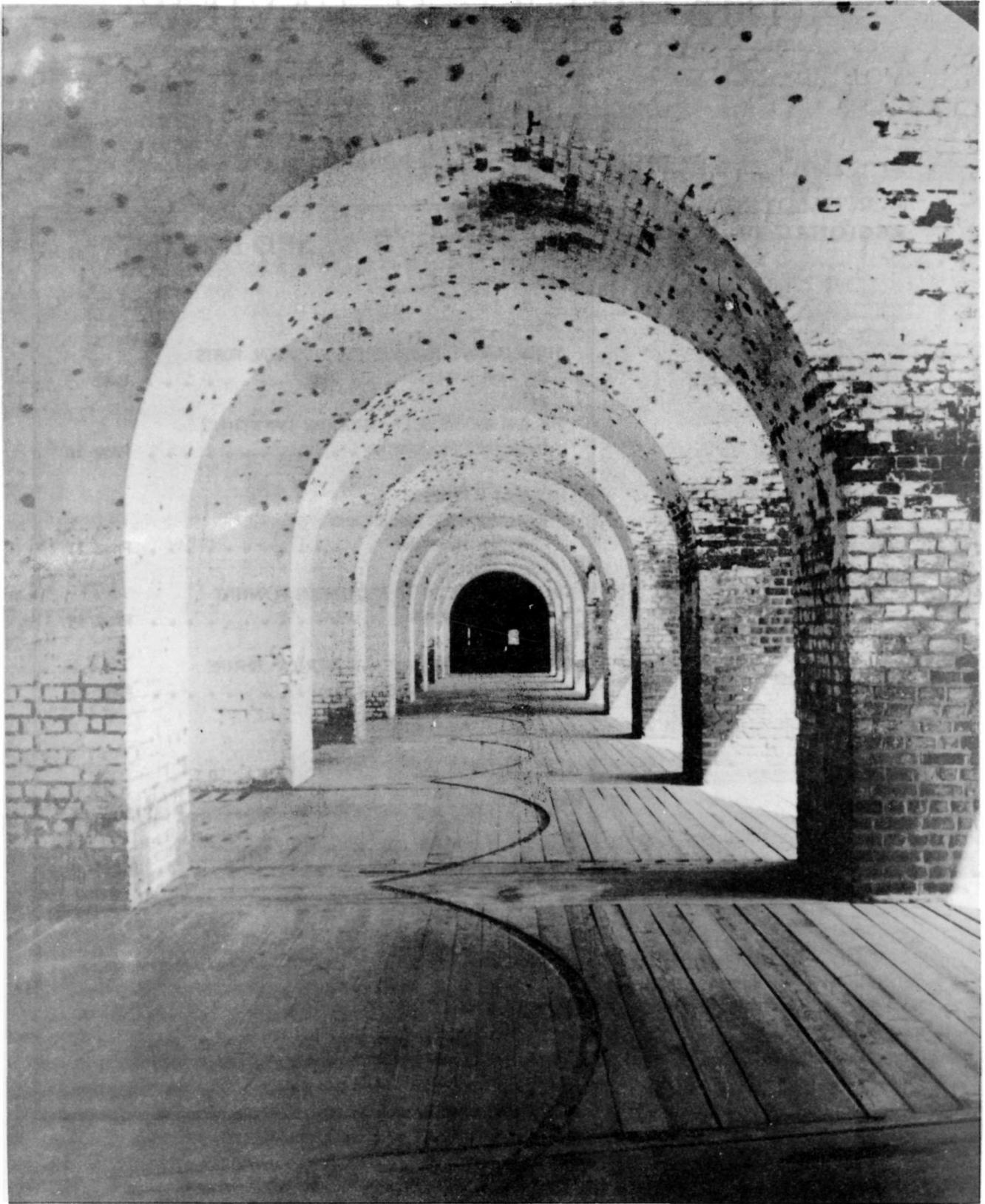
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BRICK ARCH MASONRY IN CASEMATED GALLERY, FORT PULASKI NATIONAL MONUMENT  
Fort Pulaski was begun in 1829 as one of the defenses recommended  
by Simon Bernard to protect the South Atlantic Coast.

SIMON BERNARD AND AMERICA'S COASTAL FORTS

By Thor Borresen,  
Junior Research Technician,  
Colonial National Historical Park,  
Yorktown, Virginia.

Note: Fort Pulaski and Fort Jefferson National Monuments, now famous units among the historical areas administered by the National Park Service, as well as Fort Macon State Park, of North Carolina; Fort Pike and Fort Macomb State Parks, of Louisiana, and Fort Morgan, at Mobile Point, Alabama, where the Service has cooperated with state authorities in joint supervision of rehabilitation programs, all had their origins approximately 120 years ago in the mind of a brilliant engineer who surveyed the Atlantic and Gulf coasts and laid plans for their defense against sea attack. Much has been written about the fortifications themselves, yet but little general knowledge of their planner has become current. The article which follows points out some interesting facts about the life of General Bernard, the French patriot who chose the sites and determined the general character of the six forts enumerated above along with a number of others built during the nineteenth century.

From the time of the Revolutionary War until 1789 few coast defense fortifications of a permanent nature had been constructed in the United States. Those which did exist had been built for the most part by the French, Spanish and English. The American defense consisted principally of batteries, or, as they were then called, "works". Even these were mainly temporary, constructed of disintegrating material. But these works in our military history are referred to as our "first system".

Not until 1797 did our coast defense problem receive more serious attention. Many works were built between that date and 1812, although none were large. Fort Washington on the Potomac and Fort McHenry in Baltimore are good examples of this period, which was known as our "second system". (1)

However, these fortifications had not prevented the English during the War of 1812 from landing at any chosen place and pillaging our coast with the aid of their powerful



(1) Fortification & Sea-Coast Defences, a publication authorized by House of Representatives, 37th Congress, 2d Session. Report No. 86, (1816-1862).

fleet. When peace was declared in 1815, really serious attention was given to the proper protection of our long coastline. The recent war activities had shown all too clearly the disadvantage of a feebly protected coast, and the government, though laboring under the burden of a heavy war debt, commenced planning a new system for more powerful defense. The old fortifications had proved ineffective; their battlemented fighting tops and narrow embrasures were outmoded, and the guns stationed within the works were confined to a limited field of defense. Now, guns had been improved, had larger calibers, longer ranges; but, most important of all were the new pivot carriages which fired en barbette and gave the guns a much wider range of operation.

The War Department began to look for an engineer of repute, one who was thoroughly familiar with all types of warfare and well versed in the science and art of designing fortifications. President Madison, in 1816, advised the American representative in Paris to secure the services of a prominent military engineer to supervise the fortification of our coast. Paris at the time was filled with French officers unattached to military service by reason of the final downfall of Napoleon at Waterloo. In looking over the field of experienced officers, the representative had the good fortune to encounter General Simon Bernard at a critical moment——just when he had been warned by the French minister of war that for his personal safety he should leave France without delay. Bernard's reputation as a military engineer was of so high an order that his services were eagerly sought by several European governments. Most flattering offers were tendered him, all of which he declined in order to follow the example of those eminent French nobles who had cast their lot with the American colonies during the Revolution.

Simon Bernard was born at Dôle, France, on April 22, 1779. He was educated at the Polytechnic School and entered the Engineer School when all Europe was an armed camp. To follow the fortunes of this distinguished officer leads one into a diversity of places. In the unpretentious dormitory of cadets he laid the foundation of a career, the course of which brought association with the Emperor at the height of that ruler's glory. While Bernard's ability and his professional accomplishments produced a great demand for his services, yet chance, too, played its part and his achievements in public life were influenced by environment. Bourrienne, one-time private secretary to Napoleon, graphically described, in his memoirs, how young Bernard first came to the notice of the Emperor and his subsequent activities:

"At the commencement of the campaign of Austerlitz a circumstance occurred from which is to be dated the future of a very meritorious man. While the Emperor was at Strasburg he asked General Marescot, the commander-in-chief of the engineers, whether he could recommend from his corps a brave, prudent and intelligent young officer, capable of being intrusted with an important reconnoitering mission. The officer selected by General Marescot was a captain in the Engineers named Bernard, who had been educated in the Polytechnic School. Bernard set off on his mission, advanced almost to Vienna and returned to the headquarters of Ulm. Bonaparte interrogated him himself, and was well satisfied with his replies;

but not content with answering verbally the questions put by Napoleon, Captain Bernard had drawn up a report of what he had observed and the different routes which might be taken. Among other things he observed that it would be a great advantage to direct the whole army upon Vienna, without regard to the fortified places; for that once master of the capital of Austria, the Emperor might dictate laws to all the Austrian monarchy. 'I was present,' said Rapp, (then and for a long time previously one of Napoleon's aides), 'at this officer's interview with the Emperor. After reading the report, would you believe that the Emperor flew into a furious passion? "How!" cried he, "You are very bold, very presumptuous! A young officer to take the liberty of tracing out a plan of campaign for me! Begone, and await my orders."

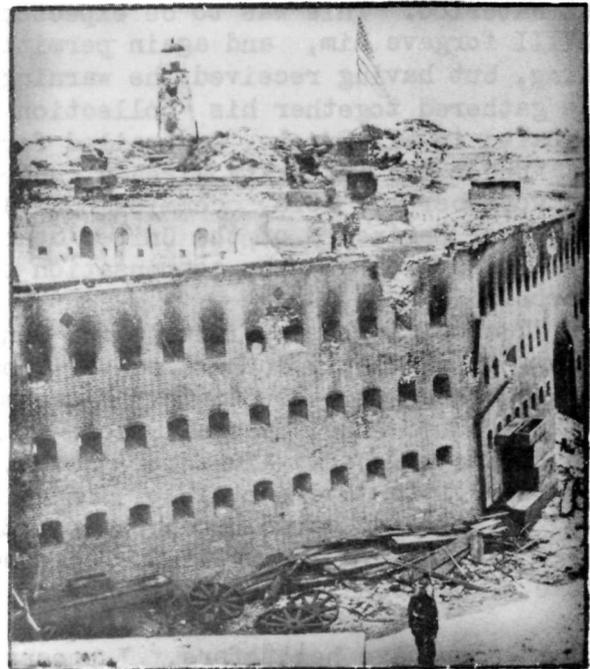
"Rapp told me that as soon as the young officer had left the Emperor all at once changed his tone. 'That,' he said, 'is a very clever young man; he has taken the proper view of things. I shall not expose him to the chances of being shot. Perhaps I shall some time want his services. Tell Berthier to dispatch an order for his departure for Illyria.'.. However, the Emperor forgot him for some time; and it was only an accidental circumstance that brought him to his recollection.....

"Before the Emperor left Paris for the campaign of 1812 he wished to gain precise information respecting Ragusa and Illyria...'

"A few days after Captain Bernard was in the Emperor's cabinet in Paris. Napoleon received him graciously. The first thing he said was, 'Talk to me about Ragusa.'..he was perfectly satisfied with M. Bernard's information respecting Illyria, and when the Chef de Bataillon had finished speaking Napoleon said, 'Colonel Bernard, I am now acquainted with Ragusa.'...

"...The Emperor was going to preside at the Council of State and desired Colonel Bernard to accompany him, and many times during the sittings he asked him for his opinion upon the points which were under discussion. On leaving the council Napoleon said, 'Bernard, you are in future my aide-de-camp.'

"As shown by the records of the War Ministry, Bernard rose through the various grades to that of field marshal of France in 1814. After Napoleon's retirement to Elba General Bernard gave adherence to Louis XVIII and was appointed a brigadier-general. Upon Napoleon's quitting Elba he again joined his standard and fought with his beloved Emperor



BRADY PHOTOGRAPH SHOWING FORT MORGAN AFTER FEDERAL BOMBARDMENT OF AUGUST, 1864.

at Waterloo. This was to be expected of an old aide-de-camp, and Louis XVIII forgave him, and again permitted him to enter the service of the King, but having received the warning of the Minister of War to depart, he gathered together his collection of engineering plans and data, unequaled in all Europe, and sailed for America.

"Under the authority already conferred by Congress, President Monroe, on November 16, 1816, commissioned Bernard to be 'an assistant in the Corps of Engineers of the United States, with the rank of Brigadier-general by brevet and the compensation that is allowed to the chief of that corps.'

"The original appointment of General Bernard in the United States Army was specially authorized by Congress (2) and therefore no nomination was sent to the Senate. His name was not borne on the army registers, but in the General Orders of May 17, 1821, his name appears next to that of General Alexander Macomb, Chief of Engineers, as 'Assistant Engineer 16th November, 1816, Brigadier-General, Brevet.'....

"In a letter dated December 14, 1816, addressed to Major-General Andrew Jackson, at Nashville, Tennessee, President James Monroe recited some of the conditions and manner of employment of General Bernard:

"\*\*\*You have heretofore, I presume, been apprised that General Bernard, of the French Corps of Engineers, under the recommendation of General Lafayette and many others of great distinction in France had offered his services to the United States, and that the President had been authorized by a resolution of Congress to accept them, confining his rank to the grade of the chief of our corps. This resolution being communicated to General Bernard by the late Secretary of War, to whom he was known, he came over in compliance with the invitation which accompanied it. From Mr. Gallatin he brought letters stating that he was the seventh in rank in the corps, and inferior to none in reputation and talents, if not the first. It required much delicacy in the arrangement to take advantage of this knowledge and experience in a manner acceptable to himself, without wounding the feelings of the officers of our own corps.....The arrangement adopted will, I think, accomplish fully both objects.

"The President has instituted a board of officers to consist of five members, two of high rank in the corps, General Bernard, the engineer at each station, . . . and the naval officers commanding there, whose duty it is made to examine the whole coast and report such works as are necessary for the defense to the chief engineer, who shall report the same to the Secretary of War, with his remarks, to be laid before the President. . . The attention of the board will be directed to the inland frontiers likewise . . . We shall have four of our officers in every consultation against one foreigner, so that if the opinion of the latter becomes of an essential use, it must be by convincing his colleagues when they differ that he has reason on his side. I have seen General Bernard and find him a modest, unassuming man, who preferred our country, in the present state of France, to any in Europe, in some of which he was offered employment and in any of which he may probably have found it...\*\*\*

"On the day that General Bernard's commission was signed a board of engineers was established of which he was the senior member during its many years of existence. The duties of this board were to consider all fortifications completed or under construction, then to select sites and make plans for all new works." (3)

How completely this board studied the military needs of the country can be appreciated only by reading the reports it made at different times during its existence. They are interesting. They cover not only the military history of the period but also contain important data on the development of the country, beginning at a time when the population of the United States was only about 8,000,000 and ending in the 1860's when a population of over 31,000,000 had been reached. First and foremost, the entire coastline was studied; each harbor of importance, both for naval and commercial traffic, was considered in the utmost detail. Next, the means of manning each fortification in time of war was planned; each fort was designed to carry a peace-time garrison for its maintenance, with the method arranged for by which it could be fully garrisoned in time of war.

Fort Monroe, for example, was to contain a peace-time garrison of 600 men; in war-time its garrison was to be increased to 2,625; when first designed its armament was to consist of 380 guns of various types, but was later enlarged to contain 412 guns. Fort Pulaski was to be garrisoned in time of peace by one company (about 300 men), but in time of war it was to contain 800 men and 150 guns. Fort Morgan, Alabama, was to contain in time of peace one company, but in time of war, 700 men. The total number of guns to be manned was 132. All the forts planned for our defensive system make too long a list to mention in this brief article.

The next problem was to provide communications between the various defensive posts independent of naval support. To do this roads had to be built, and the following system was recommended: "The interior communications desired by the government were macadamized roads; one from Washington City, along the Atlantic coast to New Orleans; another between the same points, but running by the way of Knoxville; another from New Orleans, by



Fort Pulaski (Brady Photograph) After Terrific Federal Artillery Attack of April, 1862

(3) Professional Memoirs, Corps of Engineers, United States Army and Engineer Department at Large /sic/, Volume V, Numbers 19 to 24, (Washington, 1913).

way of Tennessee and Kentucky, to Buffalo and Lake Erie; and a fourth from Cumberland to St. Louis." (4)

These, with ordinary roads of the country, it was believed would facilitate adequately the inland transportation of troops and supplies in the event of war, taking care of both the land fortifications and naval depôts on the several water frontiers.

For water conveyance a series of canals was recommended, comprising a complete inland waterway along the entire coast, and including a canal across the lower part of Florida to the gulf of Mexico. This canal is as lively an issue today as it was in 1836, its construction being nearer realization in 1936 than at any other time.

General Bernard did not remain in the United States until his plans had been executed. The board of which he had been the chairman went on with the work. The original plans which he had inaugurated and been consultant for, were adhered to and carried forward. As population, commerce and resources grew, so did the extent of the fortifications. But his basic principles were followed, namely, "That the fortifications should be strong in proportion to the value of the objects to be secured." (5) In a letter dated July 11, 1831, he informed General Gratiot, Chief of Engineers, that the President had "deigned to accept with a noble and generous kindness" (6) his resignation.

"Upon his arrival in France he was promoted to the grade of lieutenant-general and soon after his appointment as aide-de-camp to King Louis Philippe was announced." (7)

"During the period of 16 years he had been in the United States he had not been removed from the officers' roster, but carried as absent "In the service of the United States by authority of 2d September, 1816." (8)

"General Bernard became inspector-general of engineers in 1834, and was Minister of War of France from 1836 to 1839. Prior to his death in Paris November 5, 1839, he was raised to the French peerage with the title of baron. Upon the receipt in the United States of a letter from his son containing the news of his death, the President caused the following order to be issued January 8, 1840.

"The President, participating in the sincere grief felt for the death of General Bernard by the officers of the army with whom he was so long associated in the performance of important military duties, and desirous of evincing a proper respect, both for his eminent service to this country and for his virtues as a man, directs that the officers of the army wear the usual military mourning for the space of thirty days from the date of this order."

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(4) Fortification & Sea-Coast Defences, *op. cit.*

(5) Professional Memoirs, *op. cit.*

(6) Ibid

(7) Ibid

(8) Ibid

"This, in brief, is the life story of an educated and talented soldier, recognized as the ablest engineer of his generation, who, having served the Emperor until the pall of Waterloo settled over France, declined brilliant offers of employment from European sovereigns and accepted service in the army of the United States." (9)

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Author's Notes:

Excellent reference books not cited in this report are:

Arthur, Robert, History of Fort Monroe, (Fort Monroe, 1930).  
Report of General J. C. Totten, Chief Engineer on The Subject of National Defences, (Washington, 1851).

Grateful thanks are hereby extended to Captain G. A. Chester, Librarian of the Coast Artillery School Library, Fort Monroe, Virginia, and his assistant, Sergeant F. C. Lynch, for their courteous cooperation in the use of the library.

T. B.

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(9) Ibid

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CIVILIAN CONSERVATION CORPS PRAISED IN LOUISIANA

"No Federal project has enjoyed more widespread appreciation than the work of the Civilian Conservation Corps. This is readily explained by the practical accomplishments of the enrollees as well as the disciplinary influence on the character and morale of our youth at this impressionistic period. . . The state is a direct beneficiary of the CCC program, probably the chief benefit being the physical and educational advancement of the boys themselves." --Louisiana Conservation Review, Vol. VII, No. 3.

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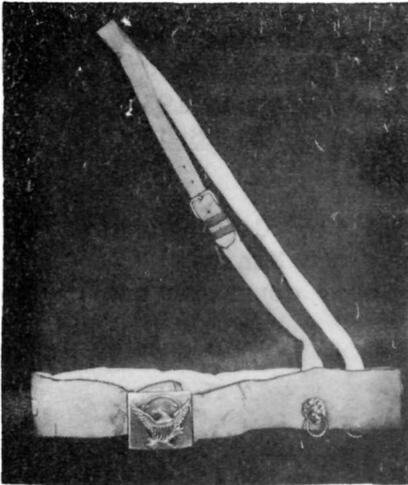
GREAT SMOKIES PRODIGAL IN BOTANICAL VARIETY

Nearly 5,000 mounted specimens, representing more than 1,400 species of higher plants, comprise the nucleus of the herbarium of the Great Smoky Mountains National Park in North Carolina and Tennessee. In addition to that collection, approximately 2,500 specimens, embracing some 900 species of fungi, have been prepared for the herbarium of the University of Tennessee. There also are 3,000 specimens of mosses and liverworts, representing 343 species.

It is that phenomenal plant variety in the Great Smokies that attracts scientists from all over the world to the great wilderness park of the Appalachians.--Department of the Interior Nature Notes.

THE SAM BROWNE BELT: AN AMERICAN INVENTION?

By Alfred F. Hopkins,  
Museum Curator,  
Morristown National Historical Park, New Jersey.



MORRISTOWN'S SAM BROWNE

Among the wealth of interesting objects exhibited by the Morristown National Historical Park Museum is one which suggests that Yankee ingenuity inaugurated that current bit of military equipment now universally worn and heretofore attributed to our British cousins, the Sam Browne Belt.

The rattling sabre, while still in service on occasions of pomp and display, was eclipsed during the period of the World War, and in its place as an insignia of rank in most of the armies of the civilized world was substituted that simple harness, consisting of waist belt with breast strap attached, known as a "Sam Browne." In Fascist Italy or Communist Russia, in Parisian Bois de Boulogne, British Piccadilly or Oriental Shanghai, the officer today is readily recognized by those two simple straps, worn with as much jauntiness as ever the sabre was trailed. Over the origin of this gear there has been much controversy, although it has always been accepted as having its genesis in the British Army. Some authorities attribute the device, with a double shoulder strap, to a Major Sam Browne, believing him to have designed it a few years before the Boer War. His design was not officially adopted in the British service until 1900. Later the single strap passing from the left side over the right shoulder came into favor. Recently it has been stated by those in a position to know that as early as 1878 a Sir Basil Montgomery, of the 60th Rifles, had his belt fitted with braces by a saddler in India and that this same type of belt was worn shortly afterwards by a General Sir Sam Browne.

The belt in the Morristown collection, however, is wholly American and antedates the British conception by at least half a century. Purchased by the Washington Association of New Jersey in 1886 and donated to the park in 1933, it is of white buckskin, 2 1/4" wide, with a breast strap 7/8" wide, fastening in front with a buckle and terminating at the waist belt in lion head masks, with rings for the attachment of sword slings. The belt plate, 2 1/2" square, is of silvered brass, slightly convex in form, and has on its face a spread eagle with shield on breast, surmounted by a scroll with the motto, "E. Pluribus Unum". The period of the belt is early Federal. It was probably made at the time of increasing the American military forces in 1812, and was worn by an officer of infantry, as the silvered plate indicates. It is regrettable that no record remains relating to the designer or wearer of what is probably the first example of this now famous harness.

### HOT SHOT FURNACES

By Herbert E. Kahler, Coordinating Superintendent,  
Fort Marion National Monument,  
and

F. Hilton Crowe, Associate Editor,  
Federal Writers Project in Florida.

Next to the dungeon no other feature at Fort Marion elicits so many questions as does the hot shot furnace located near the sea wall. Visitors are interested in knowing when this old structure was built, why and how it was used. The use of hot shot antedates the use of gunpowder. In 54 B. C. the Britons fired heated clay balls into the tents of the invading Romans with telling effectiveness. With the advent of gunpowder there was considerable hesitancy in using hot shot because of the great difficulty in controlling the time of the explosion. By experimenting, a clay was devised that effectively separated the hot ball from the powder and in 1579 the King of Poland successfully carried on a siege using hot cannon balls in his guns. The use of hot shot became increasingly important in coast defense, especially in the destruction of wooden vessels. During the siege of Gibraltar in 1782 a part of Spain's fleet was set on fire and destroyed by hot shot.

The heating of cannon balls was accomplished on open grates, a slow, wasteful and dangerous method. A great advance was made with the development of the hot shot furnace, which in 1794, was successfully used at the mouth of the Rhone River.

The hot shot furnace was brought to this country in the early part of the 19th century. One of the outstanding military engineers, Simon Bernard, Brigadier General for Napoleon Bonaparte, was employed by the United States to make a survey for coastal fortifications in the southeastern United States and his recommendations, which included the latest advances in coastal defenses, were presented to Congress in 1817 and adopted. At Fort Pike and Fort Macomb in Mississippi, Fort Morgan, Alabama, Fort Jefferson and Fort Marion in Florida, the hot shot furnaces are still in evidence. At Fort Pulaski, near Savannah, Georgia, only the foundation of the hot furnace remains.



Furnace at Fort Marion National Monument

The addition of this 19th century innovation to 17th century Fort Marion has an amusing history. The War Department in 1825 declared Fort Marion useless for defense purposes but in 1835, after the Second Seminole Indian War started, it declared the fort had defensive values and built a water battery and hot shot furnace. It also proposed the construction of shallow draft galleys as additional defense to the fort. Apparently, the Seminoles were expected to attack from the sea.

The hot shot furnaces varied somewhat in size, the one at Fort Jefferson being the largest. If the shot were placed into a cold furnace, it required one hour and fifteen minutes to heat them to a red heat and once the furnace was hot a 24-pounder shot could be brought to cherry-red color in twenty-five minutes, the 32 and 42-pounders requiring a few minutes longer. An unusual circumstance attending the heating was that the balls expanded under the heat but did not return to their normal size after cooling.

Once the balls were cherry-red or white hot, they were taken from the furnace with iron forks, scraped carefully with a rasp to remove scale, and carried in ladles to the cannon. The ladles were formed of an iron ring, the interior of which was bevelled to fit the ball, with two wooden handled arms inserted.

A number of other implements were needed at the furnace; pokers for stirring the fire, rasps, tongs with circular jaws for taking up shot, iron rake to remove cinders from the ash pit, tub for cooling implements, rammer with head covered by a circular plate of sheet iron of larger diameter than the ball to remove clay from bore when clay wads were used, and a bucket. Many of the implements were furnished in twos so that one set could be cooling in the tub while the others were in use. When the battery was in action it took three men to serve the furnace and handle the tools.

In preparation for loading the projectile, the gunners elevated the cannon muzzle; then they rammed the cartridge or powder bag home. After the powder was seated, a dry hay wad was rammed against it, then a wet hay or clay wad. Next the powder bag was pricked open and primed through the vent, and a wet sponge passed through the gun. Finally the hot shot was rolled in, packed with another wet hay or clay wad, the match was applied to the touch-hole, and the meteoric projectile sped across the billow.

The cartridges (powder charge minus shot) for hot shot were little different from those used for ordinary projectiles, being made of cannon cartridge-paper or parchment, well pasted to prevent the powder from sifting out. Sometimes two bags were used, one within the other. When clay wads were used they were cylindrical in form, about one calibre long, and were well moistened. Wet hay wads were preferable, however, and these were soaked in water for about 15 minutes, then allowed to drip.

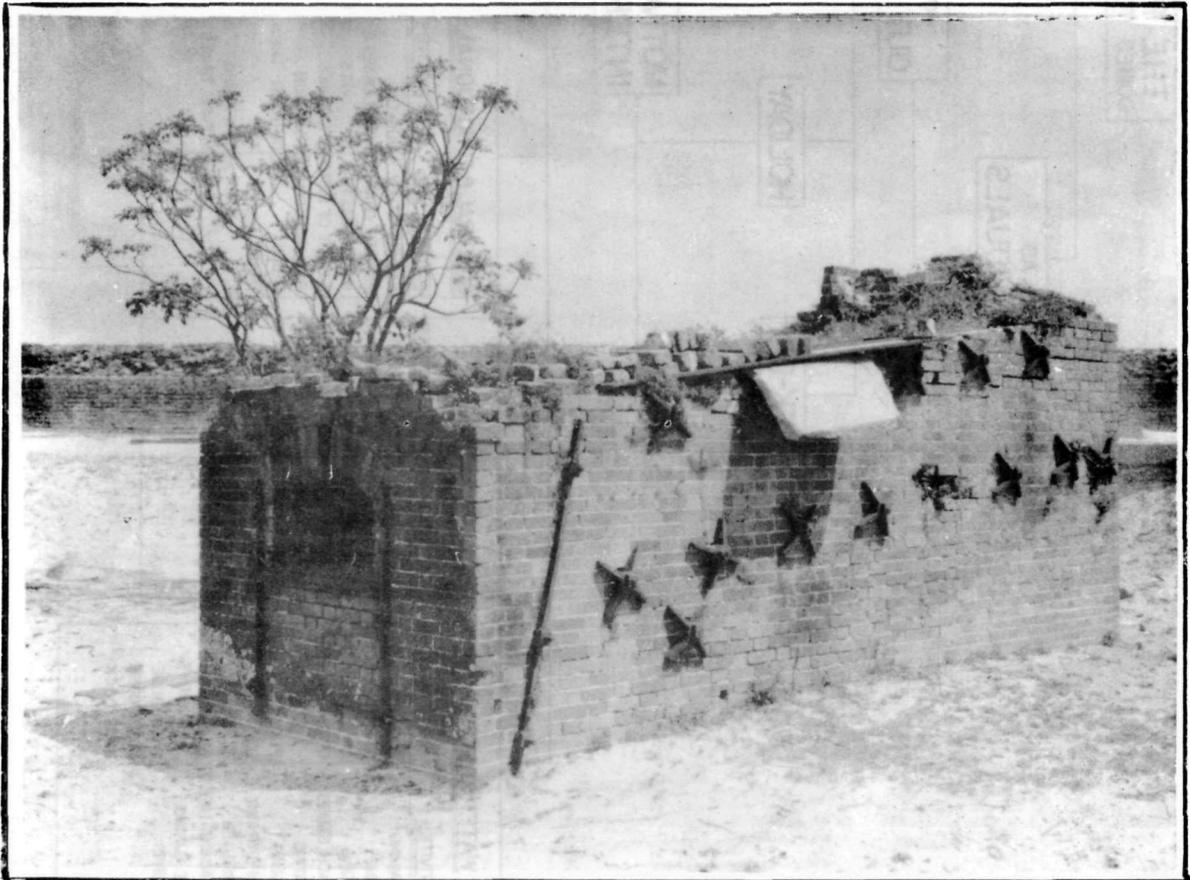
When the wet hay was used, steam was often seen to issue from the touch-hole or vent as soon as the ball was rammed home, but as this was

the effect of the heat of the ball against the water contained in the wad no danger resulted from it. It is said that the ball could cool in the gun without the charge taking fire, but shots were usually fired as quickly as possible to prevent the steam from dampening and injuring the powder.

It has been argued by some that the cannon ball would cool in its passage through the air towards its objective, but the contrary is true; the temperature of the ball increased by friction with the air. According to the Ordnance Manual of 1861, a red-hot shot retained sufficient heat to set fire to wood after having struck the water several times!

The penetrations of cold and hot shot into wood were equal under the same circumstances. Charges for hot shot were reduced, however, to one-quarter or one-sixth the weight of the shot in order that the ball might remain in the wood and not penetrate too deeply as it was found that the fire was communicated more rapidly and certainly to the wood when the ball did not penetrate more than 10 or 12 inches. At a greater depth the shot would be less effective, as the communication with the external air was not sufficient for combustion.

With the invention of the iron-clad Monitor and Merrimac, the days of wooden battleships were numbered and the hot shot oven quickly became obsolete, but although it is cold and useless today the hot shot furnace is still an object of curiosity and interest.



Old Oven at Fort Morgan, Mobile Point, Alabama.

# PARK USE CHART

THE PUBLIC  
COMES TO A PARK

AS  
INDIVIDUALS

OR AS MEMBERS OF  
ORGANIZATIONS

FOR  
OUTINGS

WEEK-DAY

HOLIDAY

OVER-NIGHT

VACATION

MOTIVATING  
INTERESTS

<u>WATER RECREATION</u>		<u>PICNICKING</u>		<u>CULTURAL &amp; EDUCATIONAL</u>		<u>CAMPING</u>		<u>SPECIAL EVENTS</u>		<u>MISCELLANEOUS</u>	
<u>ACTIVITIES</u>	<u>FACILITIES</u>	<u>ACTIVITIES</u>	<u>FACILITIES</u>	<u>ACTIVITIES</u>	<u>FACILITIES</u>	<u>TYPES</u>	<u>FACILITIES</u>	<u>ACTIVITIES</u>	<u>FACILITIES</u>	<u>ACTIVITIES</u>	<u>FACILITIES</u>
SWIMMING DIVING WADING BEACH GAMES BOATING FISHING SUN BATHING CARNIVALS SWIMMING MEETS LIFE SAVING SPORTS	BODY OF WATER MARKED WADING AREA DIVING TOWERS & FIXTURES FLOATS BEACH PLAYFIELD SMALL GAMES COURTS BATHHOUSE BOATHOUSE BOAT DOCK	PREPARATION OF MEALS EATING MEALS SPORTS GROUP GAMES SOCIAL GAMES HIKING RELAXATION	TABLES AND BENCHES STOVES, BARBE- CUE PITS, ETC. PLAYFIELDS CAMPFIRE CIRCLES TRAILS SHELTERS	NATURE STUDY PIONEER CRAFTS WOOD CRAFTS STUDY OF HISTO- RY & ARCHAEOLOGY MUSIC DRAMA	MUSEUM ANIMAL CAGES & PITS BIRD BLINDS AQUARIUM OUTDOOR THEA- TRE CRAFT SHOP NATURE TRAILS	VACATION ORGANIZED INFORMAL GROUP PIONEER PRIMITIVE DAY	CABINS ORGANIZED CAMPS INFORMAL GROUP CAMPS PIONEER CAMP SITES DAY CAMP SITES PRIMITIVE CAMP SITES	COMMUNITY SINGS CONCERTS CHORUS BAND ORCHESTRA PAGEANTS FESTIVALS WATER CARNIVALS SWIMMING MEETS	AMPHITHEATRE	ENJOYMENT OF SCENERY RELAXATION ARCHERY HORSEBACK RID- ING HIKING MOTORING SOCIAL DANCING	ARCHERY RANGE STABLES SCENIC DRIVES LOOK-OUTS FOOT TRAILS BRIDLE TRAILS REC'RN. BUILDINGS

THE HUMAN FACTOR IN RECREATION PLANNING

By R. C. Robinson,  
Regional Recreational Planner.

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Parks are acquired and developed so that present and future generations may enjoy themselves in the out-of-doors. Facilities are provided so that people may engage in those activities which afford them the greatest satisfaction. The Utopian objective is to provide enough parks and enough facilities to make it possible for every man, woman and child to enjoy nature through an understanding and appreciative association with all of its manifestations.

On the other hand, this involves physical resources -- land, waters, topography, vegetation, wildlife; on the other, the recreational habits and interests of people. The one can be appraised by all five senses, measured, evaluated; the other is without substance. Yet in recreation planning, one must be balanced off against the other.

In order to do this, the answers to certain fundamental questions must be found. What kind of outdoor recreation do people want? What kind do they need? What habits govern their participation in activities?

With a view to obtaining pertinent information on these questions, the Service has been cooperating for the last two years with the several states in conducting studies of attendance and use at recreational areas scattered throughout the nation. In Region One, this survey has covered more than 100 state, metropolitan and county areas. Not only have data on attendance and use been recorded and analyzed, but a continuous effort has been made to obtain statements from typical park visitors of their recreational interests and the habits that govern their leisure time activities. To broaden the scope of the study to include those who never visit parks, surveys have been conducted in rural communities, towns, and cities, using the sampling method of research. And finally, the field observations of recreation specialists and leaders have been obtained as a further source of information.

While the results of these studies are by no means startling, they do serve to crystallize knowledge which has been accumulated through the experience and observations of recreation administrators and leaders. They reveal that the average man's recreational interests form a complex pattern in which **one activity** becomes enjoyable only because it makes possible still other activities; that what psychologists term the gregarious instinct constitutes a powerful motivating force in shaping his recreational preferences, causing him to seek principally those activities which afford companionship in abundance; and that, as in other human endeavors, organization and leadership are fundamental elements in most of his recreational activities.

The Park Use Chart opposite this page constitutes a tentative ef-

fort to present these findings graphically. It is by no means inclusive, since many desirable park activities, such as winter sports, have been omitted, but an attempt has been made to include the more typical of those activities which are believed to be in harmony with and require a natural environment for their best expression, or which contribute to the park visitor's enjoyment as complements of the principal motivating interests which bring him to an area.

The first important planning factor brought out by the chart involves the classification of visitors. Here, as in all aspects of park use, there is considerable overlapping. Individuals may come alone, or as members of an informal group. They use the general public-use facilities and participate in such activities as are available and suitable to their interests. Each individual depends upon his own initiative or upon the initiative of leaders, either professional or volunteer, for originating activities.

Those visitors who come as members of organizations frequently have a planned program of activities and desire facilities adaptable to organizational use. For example, to meet the organizational needs for picnicking, group areas providing capacities ranging from 25 to 30 to several hundred are needed, each such unit including, among other features, a reasonable amount of elbow room and privacy, an open play space for group activities, and a campfire circle for evening programs.

The general incentive which brings visitors to the park is the desire for an outing. Outings have been classified by major leisure-time periods, *i.e.*, week-day, holiday, overnight, and vacation periods. The week-day visitor generally comes late in the afternoon and, if facilities adaptable for evening use are available, will often remain until well after dark. The campfire circle and recreation building are two facilities which make possible this evening use.

The holiday visitor has several hours at his disposal. Generally speaking, he either comes in the morning between 9 and 12, has his lunch on the area, remains until 5 to 6 o'clock, and goes home; or he comes in the afternoon between 1 and 4, has an evening lunch on the area and goes home at dusk or later. From the standpoint of planning, this means that facilities for holiday use should be adequate to handle at one time approximately half the anticipated number of visitors. The peak load generally comes between 4 and 5 o'clock, at which time the average ranges as high as 50 or 60 per cent of the total attendance for the day.

The overnight visitor comes on a Saturday afternoon to stay until Sunday afternoon, or he may come on the afternoon before a holiday, such as the Fourth of July, to remain overnight. He will participate in the same types of activities as the week-day and holiday visitor; consequently, his only additional requirement is for overnight accommodations, including facilities for preparing and serving meals. The vacation visitor comes for a stay ranging from several days to several weeks. Here, again, his activity interests will be met by the same facilities as those provided for week-day and holiday visitors; consequently, his only additional requirements are those of lodging and meal preparation and

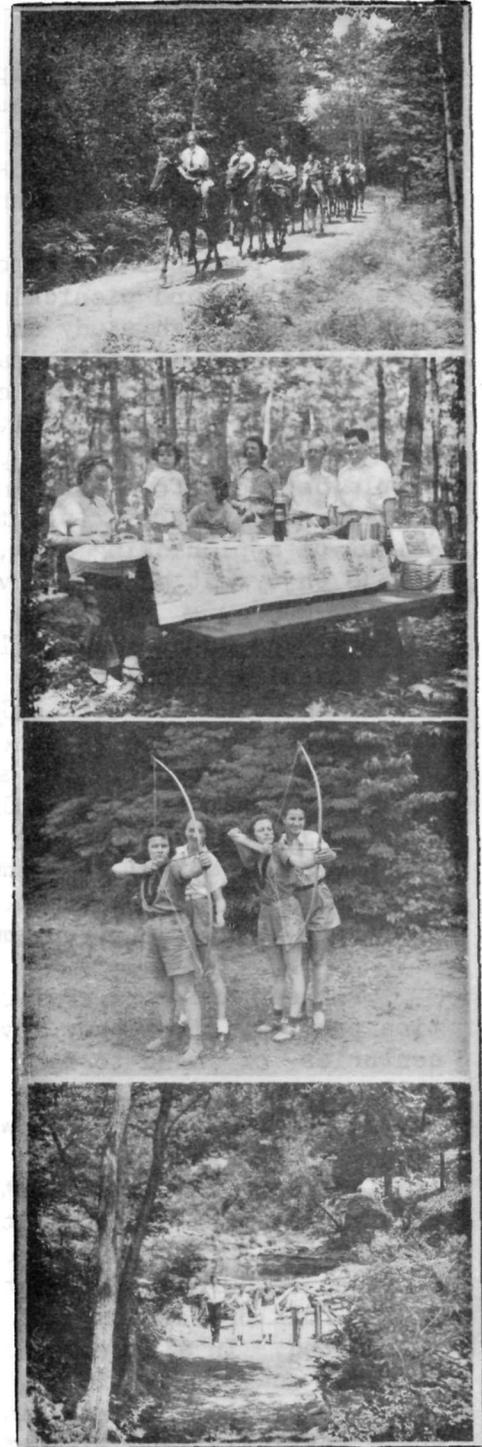
serving accommodations. Since he is spending a longer period of time at the area, he generally desires better accommodations than the overnight visitor in the way of cabin equipment for cooking, eating, sleeping and bathing.

Those activities which the visitor has primarily in mind in coming to an area are classified on the chart as motivating interests. It should be understood that there is a large overlapping of interests as between activities; that, for example, the swimmer may want to eat his lunch at the picnic area, play games on the play-field and hike along the nature trail in addition to swimming; while a family may come for a picnic, each member seeking other activities in accordance with his or her particular interests.

This overlapping of interests on the part of the park visitor has a definite influence on planning since it makes advisable the establishment, in design, of certain relationships between facilities. Those facilities necessary to accommodate the various activities are listed and should need no explanations. Natural resources and a knowledge of the recreational needs of the using public will determine which of the activities listed on the chart an area can and should offer. It should be borne in mind, however, that each activity will contribute something both to the popularity of an area and to the enjoyment of park visitors and that, for this reason, planning should include opportunities for as wide a diversity of interests as is practicable.

**Water Recreation:** Activities listed under this heading are those which depend directly or indirectly upon a body of water and are typical rather than exhaustive. It does not include activities listed under motivating interests but which are often incidental to water recreation, such, for example, as picnicking and cultural and educational activities.

**Picnicking:** Picnicking, like camping, is for the average park visitor a means to an



#### DIVERSITY OF INTERESTS

Top to bottom: Allegany State Park (N. Y.); Beach Pond Recreational Demonstration Area (R. I.); French Creek Recreational Demonstration Area (Pa.), and Shenandoah National Park (Va.).

end, that end being participation in a wide variety of activities. Among the activities closely associated with picnicking are those listed on the chart under this classification. In addition, all of those activities listed under other classifications, with the exception of camping may be considered as complements.

It is particularly important, from the standpoint of planning, to make swimming and picnicking possible as a joint activity, since it has been found through study and observation that a very large percentage of picnickers want to participate in water recreation. For this reason, it is desirable to locate picnicking facilities as close to the beach or swimming area as site conditions will permit. The requirements for the two principal types of picnicking, that is, informal and organized, should be kept foremost in mind. It is also particularly important to provide open spaces (playfields) and campfire circles in planning the layout of a picnicking area, since such facilities contribute materially to the enjoyment of outing visitors who come for a picnic.

Cultural and Educational: Those activities listed on the chart under this classification are by no means exhaustive. Many of man's recreational hobbies involve cultural or educational pursuits. A park may, for example, become an excellent place for the study of astronomy, for wildlife photography, for sketching, for painting, and for many other similar activities. Not only is nature education fundamental to an understanding of the purpose and need for conservation, but it provides the basis for a real enjoyment of the out-of-doors. Under qualified leadership it can also become a popular and absorbing activity. It therefore should be given emphasis in program planning.

Pioneer and wood crafts may be considered a part of a nature education program, since they involve those arts which man created during his centuries of hand-to-hand struggle with the neutral environment. For this reason the craft shop should be located near the museum so that it may be used in conjunction with the nature program.

Areas which have historical or archeological significance offer a wide variety of opportunities for stimulating visitors' interest in these two important subjects. Even where an area is lacking in either of these resources, interest can be created, through pageants and drama, in the folklore history of the general section of the state in which it is located. In all probability, the arts of music and drama originated around a campfire. Today, the average group, when gathered around a campfire circle, engages in song, story-telling and dramatic stunts. Music festivals and dramatic pageants in open air theaters have long been popular and may be considered legitimate activities on areas which can provide the facilities and necessary directional leadership and which are conveniently located in relationship to population.

Camping: Camping has been defined as the art of living within the limitations of an outdoor and primitive environment. There are many modes of camping and types of camping facilities ranging from cabins de luxe with hot showers, electric stoves and other civilized gadgets, to primitive sites on which the camper builds his campfire, cooks his meal and

spreads his pallet under the sky. For planning purposes, however, these modes and types of camping have been arbitrarily grouped under the classifications listed on the Chart. Briefly, these classifications may be explained as follows:

Vacation camping has reference to that type of camping done in individual family cabins, on camp grounds and in trailer camps, and involves a period of several days or more. Organized camping has been used to designate that type of camping conducted for a group of people by an institution, operated under certain routine discipline, which seeks to carry out definite aims through the supervision of trained leaders. Informal group camping is used to designate that type of camping conducted for a group of people, predominantly adult, operated with a minimum restriction of routine discipline, in which the program arises out of the recreational interests and initiation of the campers themselves under the stimulation and guidance of a properly trained administrative staff.

Pioneer camping has been used to designate that type of camping in which the learning of camping techniques in a designated, undeveloped (except for potable water and pit toilets) site by an organized group constitutes the primary objective. Primitive camping has been used to designate that type of camping which has as its primary objective the application of campcraft techniques in a natural environment by individuals or small groups furnishing and carrying their own equipment "back in" off the beaten path. Day camping has been used to designate that type of camping which involves the spending of a day in the out-of-doors by an organized group which carries out a camping program under supervision.

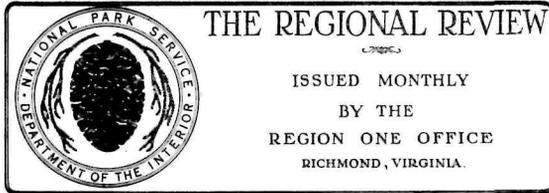
Special Events: Special events have both a participant and spectator value. They afford an additional value as a means of focusing public attention on various recreational activities, thereby stimulating a wider interest in these activities.

Miscellaneous: Listed under this classification are a number of activities which have been found to be incentives which bring visitors to a park or recreational area.

Enjoyment of scenery has a particularly strong appeal on areas which offer unusual natural features or exceptional beauty. Judging from park use studies, a large number of people come to recreational areas with no other objective in mind than that of relaxing, since they participate in no other activity. They provide the spectators found around swimming areas and other feature points. Archery has a number of followers who make trips to outlying areas for the sole purpose of using the archery range. The same is true of horseback riding and hiking. Studies on areas which have scenic drives reveal that many people come solely to use them as motorways.

Editor's Note: The above article introduces in a general way a series of recreational studies which will appear in future issues of The Review.

## THE EDITOR'S PAGE



Vol. II February, 1939 No. 2

### COMING

The Review is able this month to promise some tasty dishes for future menus. Among the forthcoming pièces-de-résistance, already in the editorial mixing bowl, are Acaadians Find Peace in Louisiana, by Wilton P. Ledet, a native of the state where American cooking was elevated from the status of a domestic necessity to that of a Fine Art; Sentinel of the Atlantic's Graveyard, by C. G. Mackintosh, who personally knows a great deal of the 69-year history of the famous spiral-banded lighthouse of Cape Hatteras; The Park at Old Guilford Courthouse, by Acting Superintendent William P. Brandon, and The Facts of Wildlife Are Not Always True, by Dan Beard, Wildlife Technician, who will tell you whether porcupines shoot their quills of hoop snakes take tail in mouth and roll down a hill. Melvin J. Weig, Assistant Research Technician at Morristown National Historical Park has agreed to prepare a study on Hopewell Village, and Willis King, Associate Wildlife Technician in Great Smoky Mountains National Park, will give you authentic information on the stocking and taking of fish in the bold streams of that wilderness area. The Review, shy to a fault, nevertheless experiences more than its accustomed sensations of pride in announcing these major gastronomic items and is happy to suggest that some of the hors-d'oeuvres and like auxiliary dishes also will be appetizing.

### NATIVITY

The matter of being born, it now develops, is something which abides with you all the days of your life. That immutable law has been brought, with increasing insistence, to the attention of many employees since the issuance of the memorandum directing all workers to supply documentary proof of the date of birth. The mere fact that one has achieved and survived nativity can be established with comparative ease but, it now is apparent, the business of proving, by paper and seal, the exact day of that important occurrence occasions considerable research and not infrequently some startling surprises to the person who always had conceded unquestioningly the family tradition that he or she became a potential presidential candidate at 4:01 p. m. on Thursday, April 9, 1904, and that the name was Artaxerxes Marmaduke Jones or Minnie Cleopatra Smith. Surprises in the Region One headquarters included those of respectable employees who discovered that, contrary to previous reckonings:

1. He was two years older;
2. He was one year younger;
3. His birthday was in another month;
4. His first name, borne by five Polish kings and one patron saint, had been misspelled all along;
5. Her calling cards bore a middle name never pronounced at baptism;
6. She was, fortunately, six months over-generous in the age which she had always admitted.

If you started out to save this somewhat confusing world in a county where your arrival was not legally noted, it will be helpful if the Census jotted you down. It may be pointed out, however, that the harassed Bureau right now is busy certifying the birthday of every U. S. relief laborer. "Yea, verily," the prophet hath said, "ye must be born again!" --- H. R. A.

LINCOLN'S BIRTHPLACE — AMERICAN SHRINE

By Roy Edgar Appleman,  
Regional Supervisor of Historic Sites.



Among the historic areas now in federal ownership and under the jurisdiction of the National Park Service are the birthplace sites of two of America's greatest men, George Washington and Abraham Lincoln. The first is situated in tidewater Virginia, the second in the rolling hill country of Kentucky. Separated by almost a century in time, the social atmosphere and family environment in which these two men began their lives offer striking contrasts in the pattern of American society. One was the son of a gentleman farmer of the Old Dominion, the other the son of an obscure, improvident, but honest ne'er-do-well of the raw Kentucky frontier who could write his name only with an effort and usually made his mark for signature.

The Abraham Lincoln National Park embodies 110½ acres, most of which was formerly part of the Thomas Lincoln farm on which Abraham Lincoln was born February 12, 1809. It is situated a few miles from Hodgenville, Kentucky, in LaRue County, but in early days was part of huge Hardin County which encompassed an area 150 by 50 miles in size. Here in a plain, one-room, cheerless, log cabin, with the earth as a floor, began so unpromisingly the life of a boy who was to develop into the man that, more than any other, preserved the Union and made possible the strong country in which human life is richer and freer in our own time than anywhere else on earth.

The man and woman who are known to history as the father and mother of Abraham Lincoln and who took up their abode in the rude cabin on the edge of "the Barrens" are of continuing interest to all who strive to understand the forces that molded the man whose strides carried him awkwardly yet majestically over a path which began in common Kentucky clay and ended in immortality. Concerning Thomas Lincoln, his father, there is a wealth of information. Research has enabled scholars to construct a sharply defined picture of this physically strong, roving hunter, carpenter-farmer. Good natured, honest, he seemed to be always retreating before the approach of the comforts, advantages, and arts of a developing community, as if they represented something incompatible with his shiftless nature and pallid mind. The picture of Nancy Hanks is as blurred and uncertain as that of her husband is fixed and definite. One eminent authority has said of her, "Dim as the dream of a shifting mirage, her face and figure waver through the mists of time and rumor". There is no agreement in the evidence that has come down to us as to her physical appearance. No signature by her has ever been discovered. A few legal documents bear her mark. That she possessed a fine native intelligence, courage, and displayed a morality above reproach, and was kind and affectionate, seems fairly certain from the evidence found in the Herndon and

Weik manuscripts. This unfortunate woman, to whom our heart goes out, sickened and died in a poor windowless log cabin in the Pigeon Creek settlement in Indiana in 1818, two years after leaving Kentucky, and was buried in an unmarked grave.

In 1808 Thomas Lincoln bought 300 acres at 66  $\frac{2}{3}$  cents an acre (one authority who presumably has examined the land records of LaRue County gives 348 acres as the size of the tract), and in November or December of that year moved into the cabin near the large sinking spring, from which the place took its name, being known as the Sinking Spring Farm. The fine spring with a steady flow of clear, cool, sweet water, issuing from a passage in the limestone formation which underlies this region, is still serving mankind. Thousands of people yearly drink from it and fill bottles and jugs to take away with them on the occasion of their visits to this shrine.

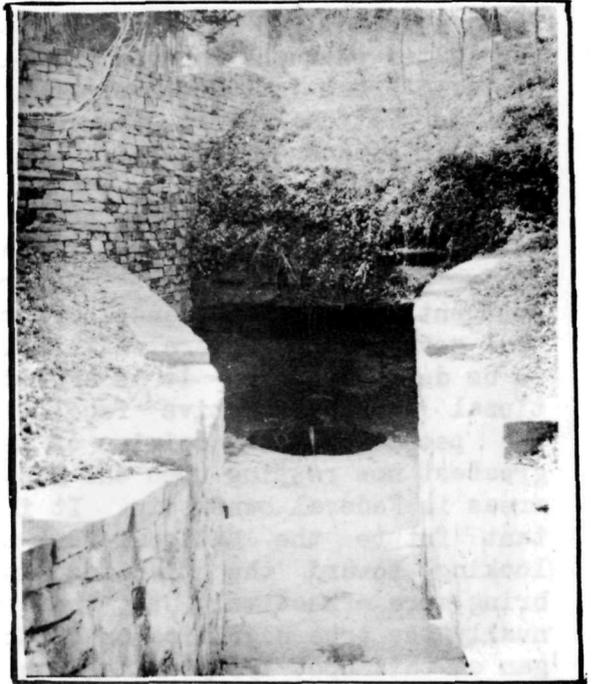
The place where Thomas Lincoln took his wife and infant daughter to live in 1808 was on the border of what was known as "the Barrens", a region about 70 miles long by 60 broad which had been made almost treeless by the ancient practice of the Indian tribes of burning over this area to create grazing ground for the buffalo. There were few people living in this rather desolate region when the Lincolns took up their abode by the Sinking Spring. The French traveler and scientist, Michaux, who saw this country about the time of Lincoln's birth, remarked that along the road where the plantations were thickest he counted only eighteen in a distance of 60 to 70 miles. Elizabethtown, the county seat of Hardin County, where Thomas Lincoln had met Nancy Hanks and where he married her in 1806, was the nearest community of any size, and it was only a frontier village. Lexington, with a population of 3,000, was 90 miles distant.

The Lincolns were not destined to remain long in the cabin by the Sinking Spring where the boy Abraham was born two or three months after his obscure parents and their little baby girl occupied it. Thomas Lincoln had bought the land subject to a trifling lien of \$61.50, held against the previous owner, and of which he had knowledge. In September, 1813, the holder of the lien filed a bill in equity for the amount. Thomas answered the complaint, but without making an effort to settle the claim or waiting for trial and judgment of the case he suddenly moved his family to their next home, on Knob Creek, about eight or nine miles to the northeast of the Sinking Spring Farm. This action on the part of Thomas Lincoln remains inexplicable, since it is known that he had a little money at this time which he had obtained from the sale of some land bought some years earlier with his share of his father's estate. Three years later, in 1816, the Sinking Spring Farm was sold by Court Order for \$87.74.

The new place on Knob Creek occupied by the Lincolns contained only 30 acres, not more than half of which was cultivable. The story of the Lincolns in this last home need not be told here except to note that in 1816, probably as a result of a number of ejection suits which were brought against settlers in the Knob Creek region by nonresidents, Thomas Lincoln built a flat boat of poplar logs on the Rolling Fork, two and a half miles from his cabin, and abandoned his small holding. With

his destitute family, a few tools and some barrels of whisky he floated his crude craft to the Salt River and thence to the Ohio, finally landing on the Indiana side of that stream. The Lincolns had left their Kentucky homes forever.

To trace the history of the Sinking Spring Farm from 1816 to the early 1890's, when it becomes significant again for our purposes, is not here necessary or important. Shortly after 1890 Alfred W. Dennet of New York City, an operator of chain restaurants, bought the Lincoln Birthplace Farm from the heirs of Richard Creal and began to attract public attention to the site. Beginning about 1894 items appeared in the press giving weight to the rumor that a national memorial to Lincoln would be built on the old Sinking Spring Farm. From Mr. Dennet the farm eventually passed to a Mr. Crear, also of New York City. For several years no tax was paid on the property. Finally, in 1905 it was advertised and sold to the highest bidder at a public auction held at the LaRue County Courthouse. Just before this, in 1904, the Reverend Jenkins Lloyd Jones began a movement to have the Federal Government acquire the Lincoln farm and make it a national memorial. The movement gained momentum when his son, Richard Lloyd Jones, then managing editor of Colliers Weekly, became active in the project and interested Robert J. Collier, publisher of the magazine, in the proposal. Colliers Weekly immediately became the leading protagonist in the Lincoln Birthplace Memorial movement and was joined by other periodicals. Soon the Lincoln Farm Association was formed. This Association undertook to raise funds by popular subscription to purchase the farm and to erect on it a fitting memorial to the great man who was born there. By 1906 sufficient funds had been obtained by the Association to enable it to purchase the birthplace site and 110½ acres of land, nearly all of which had been part of the original Sinking Spring Farm. Popular subscription soon raised a total sum of \$300,000 which made it possible to begin construction of a memorial building in 1908. On February 12, 1909, the one hundredth anniversary of Lincoln's birth, President Theodore Roosevelt laid the corner stone of the building which was dedicated in 1911 by President William Howard Taft.



SINKING SPRING

The Lincoln Farm Association held control of the Memorial until 1916 when its land holding and the memorial building were transferred to the United States government, along with an endowment fund of \$48,000. In September, 1916 President Woodrow Wilson on behalf of the Federal government delivered an acceptance address from the birthplace site on the knoll overlooking the Sinking Spring and the custody of the cherished

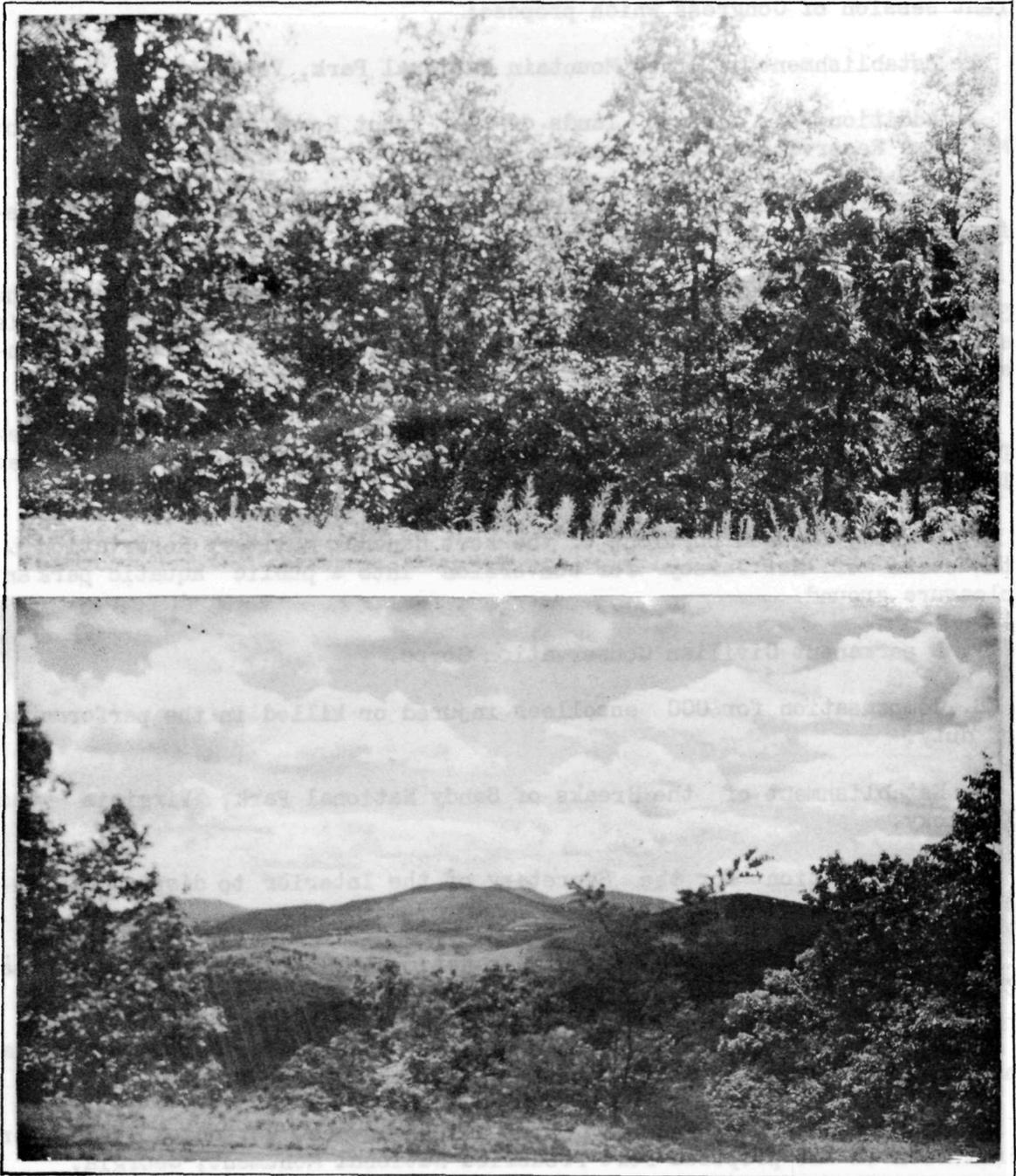
spot formally passed into the hands of the United States Government. From 1916 to 1933 the area was administered by the War Department. In the latter year the Abraham Lincoln National Park, along with many other historic areas in Federal ownership, was transferred to the jurisdiction of the National Park Service by Presidential proclamation issued by Franklin D. Roosevelt.

No important changes have been made affecting the area since the National Park Service was given administrative jurisdiction of it in 1933. What is seen there today represents a development carried on almost entirely by the Lincoln Farm Association and inherited by the federal government. Several alterations in existing features are believed to be desirable, and it is agreed that improvement is needed in educational and interpretive facilities for the benefit and inspiration of the people. In the opinion of many, this responsibility is one of the greatest now resting upon the National Park Service relating to historic areas in Federal ownership. It is safe to prophesy that in the not distant future the National Park Service will undertake a careful study looking toward the planning and development of the area in order to bring more effectively to the thousands of Americans who visit it annually the true significance of the humble but truly great life that began on this spot 130 years ago this month.

Superintendent of Abraham Lincoln National Park is John M. Cissell, a courteous, mild-mannered man who genuinely loves the place, and in a sense is a part of it. All his life he has lived on or near the Lincoln Birthplace farm. His statement which follows might almost be called a bit of Lincolniana.

"I was born August 19, 1893", writes Mr. Cissell, "on what is now part of the old original Lincoln Farm, in a two story log house, about 800 feet from Lincoln's Birthplace cabin, and have spent my past life on this exact spot. My father was born in the year of 1839, about one mile from Lincoln's boyhood home, Knob Creek, Ky., which is about nine miles from Lincoln's birthplace, now the Abraham Lincoln National Park. My grandfather Richard Creal, who was born in the year 1801, purchased the original Lincoln Farm and cabin from Royal P. Hankley about 110 years ago. My grandfather Creal never knew the Lincolns, but his neighbors knew, visited, and administered at the birth of Abraham Lincoln. My mother knew and visited with Aunt Peggie Walters, who assisted Mrs. Nancy Hanks Lincoln at the time of Abraham Lincoln's birth, February 12, 1809.

"I have been employed in the Lincoln National Park continuously since 1909 and have not lived out of sight of the spot where Lincoln was born. I was first employed by the contractor, who built the Memorial and step-approach, to assist the stone mason, and was one of the two men chosen to assist President Theodore Roosevelt in the laying of the cornerstone February 12, 1909. I was appointed March, 1910, by the Lincoln Farm Association as Superintendent of this area, and since that date have had the honor to open the doors of this memorial... to three Presidents, Queen Marie of Rumania, Lloyd George and other distinguished visitors."

**BEFORE AND AFTER---****An Example of Skillful Vista Cutting in Shenandoah National Park**

The lower photograph was made on the Skyline Drive in the Shenandoah on the same spot where the upper picture had been taken two days earlier. It showed the completion of a vista cutting project carried out by Civilian Conservation Corps enrollees supervised by the Service and illustrates strikingly the recreational benefits which may be derived from discreet application of development principles.

## LEGISLATION

Of special interest in Region One are bills introduced in the current session of Congress which propose:

1. Establishment of Green Mountain National Park, Vermont.
2. Addition of certain lands of the Front Royal Quartermaster Depot Military Reservation to Shenandoah National Park, Virginia.
3. Addition of lands to Fredericksburg and Spotsylvania County Battlefields Memorial National Military Park, Virginia.
4. Appropriation of \$100,000,000 to locate and construct through the States of Virginia, North Carolina, Tennessee, Kentucky and West Virginia and the District of Columbia a highway to be known as the Eastern National Park-to-Park Highway.
5. Appropriation of \$100,000 to continue the survey of the Natchez Trace through Louisiana and Texas with a view to constructing the Natchez Trace Parkway along that route.
6. Leasing unused portions of the Fort Hancock Military Reservation to the state of New Jersey for conversion into a public aquatic park and pleasure ground.
7. A permanent Civilian Conservation Corps.
8. Compensation for CCC enrollees injured or killed in the performance of duty.
9. Establishment of the Breaks of Sandy National Park, Virginia and Kentucky.
10. Authorization for the Secretary of the Interior to dispose of Recreational Demonstration Areas.
11. Establishment of Cumberland Gap National Historical Park and the Cumberland National Recreational Area, Tennessee, Kentucky and Virginia.
12. A survey of the old Jackson Military Road and establishment of a national parkway along that route.
13. Authorization of Federal cooperation in acquisition of lands for inclusion in the proposed Fort Frederica National Monument, Georgia.
14. Addition of lands to Vicksburg National Military Park, Mississippi.
15. Authorization of a National Mississippi River Parkway.
16. Paving Glass Mill Road, an approach route leading from Chickamauga, Georgia, to Stotts Mill, Chickamauga and Chattanooga National Military Park, Georgia and Tennessee.

PUBLICATIONS AND REPORTSA "NEW GRAND TOUR" OF THE WORLD'S PARKS

Wild Life -- and Rare -- in National Parks and Paradises Round the World (Wild-flowers, trees, animals, scenery), by Millicent H. Morrison, with a foreword by Viscount Bledisloe and a postscript by Dr. A. Maude Royden. Published under auspices of the Green Cross Society (London) by the King's Stone Press, Long Compton, Shipston-on-Stour. /1938/ 40 pp. One shilling.

"Glory to God!" exclaimed the one; "Well I'm damned!" said the other, when two visitors first saw the beauties of the Yellowstone. "We speak a different language," observed the first, "but we both mean the same thing."

In this wise does Mrs. Morrison, honorary organizer for Britian's Green Cross Society, begin a brochure which is to lead her readers on a "new grand tour" of the national parks of more than 30 countries distributed throughout the world. Her modest but surprisingly fact-laden booklet constitutes the second effort ever made by any conservationist to appraise, nation by nation, the progress achieved to date in the preservation of primeval biologic and geologic heritages. Her work supplements and, through a difference in approach, illuminates Dr. René Salgues' "Protection de la Nature et Réserves florofaunistiques" (Revue générale des Sciences, Vol. XLVII, Nos. 9, 10, 12, 13, Paris), which likewise conducts readers on a vicarious park-to-park itinerary.

Mrs. Morrison announces at the outset her intention to "indicate in some measure, country by country, how far the world has proceeded since the dedication of the first national park in 1872 /the Yellowstone/ --not to overtake the long, long destruction of nature capital accumulated during un-numbered ages, for that is impossible; but whether since 1872, or the opening of this century, or since the Great War, the world has been able to keep pace in any measure with current destruction or spoliation." She points out the difficulties which may be encountered in nomenclature itself and decides: "For general understanding, therefore, it would perhaps be better to speak of National Sanctuaries, or National Wild Nature Parks. But this is for the Americans to say."

The author then proceeds to an inventory of the park stocks of nearly three dozen countries, enumerated, apparently, in the order of her travels. She records descriptive materials, ranging in length from a short paragraph to a page and a half, on the following regions: Eire, the United States, Canada, Chili, the Falklands, Brazil, Argentina, New Zealand, Australia, China, Japan, Korea, Malaya, India, Burma, Ceylon, Africa, Palestine, Cyprus, Turkey, Russia (European and Asiatic), Finland, Germany, Denmark, the Netherlands (including Java), Belgium, Sweden, Norway, France, Spain, Portugal, Switzerland and Italy. She pauses often for personal observation -- some of them a bit wishful as when, on citing the park resources of Denmark, she writes: ". . . the primitive wild nature of Rebild National Park, North Jutland, is a precious possession, for its own sake, and because it is the gift of Danish-born American citizens --- a hint to the generosity of English-born American citizens."

Although the Green Cross Society, headed by the Marquess of Tavistock, devotes its energies primarily to the protection of trees and wild flowers, Mrs. Morrison concludes the brochure with an appeal for the establishment of international parks, one of them designed fundamentally to afford safeguards for wild fowl. ". . . the problem of Bird Protection," she points out, "cannot be met entirely by Sanctuaries in separate countries, valuable and excellent though these certainly are. International effort is essential; and this may well take the form of establishing International Parks --- in the Arctic, for instance. . . New Zealand has a variety of remarkable birds, some of which make an almost unbelievable length of migration; and whose safety . . . depends primarily upon what happens in the Arctic. . . The breeding places in the Arctic may be ravaged or disturbed; or marine food from obscure cause may have diminished or deteriorated. Anyhow, this is an affair for international cooperation."

Somewhat more arresting by its amplitude is a second proposal --- that all Tibet, "the last compact, comprehensive, unexploited, unaggressive country left in the world" --- be protected "in its entirety from all alien, un-invited influence," thereby making secure for all "an International Park in the biggest and broadest sense." --- H. R. A.

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#### SALGUES STUDY WIDELY DISTRIBUTED FROM RICHMOND

Prof. Dr. René Salgues' inventory of the national parks of the world, La Protection de la Nature et Réserves floro-faunistiques, translated and adapted by the Region One office of the Service and reproduced as a 17-page mimeographed pamphlet, has been distributed during the last eight months to approximately 350 university and high school libraries as well as to many individuals. Requests for copies have been received from virtually every state and from schools in several provinces of Canada. Reproduced first in the Park Service Bulletin (Vol. VIII, Nos. 3 and 4), the article received further notice through its listing by the editor of the Vertical File Service, of New York, which has continued, during the first two months of 1939, to transmit librarians' requests for copies. The study of M. Salgues, combined with that of Mrs. Morrison, reviewed above, affords a fairly comprehensive panoramic view of park progress throughout the civilized world. Yet, since both authors make no mention of the phenomenal progress lately achieved in Mexico, students of world conservation may find it interesting also to examine the excellent article by Daniel F. Galicia, "Mexico's National Parks," in Parks and Recreation, Vol. XXII, No. 5, January, 1939, pp. 240-248.

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#### NEW SMOKIES FOLDER ISSUED

A six-page multilithed folder, which gives a clear thumb-nail description of Great Smoky Mountains National Park, was issued recently by the Service. Illustrated by seven photographs, the leaflet offers data on the history, flora, fauna, recreational facilities and regulations of the North Carolina-Tennessee park. Roads and trails also are described.

MORRISTOWN ILLUSTRATED FAUNA LIST PRAISED

Thirteen hand-colored drawings illustrate Fauna of Morristown National Historical Park, a photographically reproduced check list prepared by Mrs. Melvin J. Weig, wife of Assistant Research Technician Weig. Her ornithological list embraces 122 species and there also are 23 entries in the total of mammals. ". . . She has done a very fine piece of work," wrote the Wildlife Division in a letter to Superintendent Cox. "It is hoped that Mrs. Weig will continue her ornithological work at Morristown and keep her list up to date. It should make an interesting check list for those park visitors who are interested in bird study."

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NEW BOOKLET TO RELATE SERVICE HISTORY

A multilithed pamphlet, designed as a companion booklet to that recently issued describing the origins, machinery and accomplishments of the Civilian Conservation Corps, is in preparation by the Branch of Recreation and Land Planning. It will present in simple and popular style the history of the National Park Service, chronicling its genesis and growth and describing its aims and functions. The writing is being done by James F. Kieley, Associate Recreational Planner.

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NEW YEAR BOOK IN PRESS

The 1938 Yearbook---Park and Recreation Progress, the Service's second annual review of national and state park developments, has been sent to the public printer by the Branch of Recreation and Land Planning and is expected to be ready for distribution during the spring. It will have the same format and general plan used in preparation of the 1937 edition. Eighteen authoritative articles have been contributed by leaders in various fields, both within and without the Service. A total of 31 photographs and three maps will illustrate the volume.

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SERVICE ARCHEOLOGICAL WORK COMMENDED

Appreciation for the effectiveness with which archeological activities have been carried forward in Colonial National Historical Park is expressed by J. R. Mayer in a "Letter on Early Colonial Arms and Armor," addressed to the director of the Rochester Museum of Arts and Sciences and reproduced in Museum Service, Vol. XII, No. 1. In answer to a request for data on early American arms and armor, Mr. Mayer points out the great difficulties encountered in finding authentic specimens and describes his satisfaction at the reward provided in the park museum---a cabasset helmet. "I believe these Jamestown finds are of historical significance," he writes, "because now we are in possession of fragments of the actual military equipment used by the founders of America's first successful colony. With them no doubt they fought the savages. . . Thanks to the National Park Service it is possible to answer your question at least in part....."

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GREAT SMOKIES PLAQUE DESIGN APPROVED

Final approval was given this month to the design of the Founders' Memorial Plaque which will be placed in Great Smoky Mountains National Park at Newfound Gap on the Tennessee-North Carolina boundary line. Designed by Paul Manship, of New York, the plaque and memorial site are expected to be completed by early summer. The inscription will read:

FOR THE PERMANENT ENJOYMENT OF THE PEOPLE  
 This Park Was Given One-Half by the Peoples  
 And States of North Carolina and Tennessee and  
 By the United States of America AND  
 One-half in Memory of Laura Spelman Rockefeller  
 By the Laura Spelman Rockefeller Memorial  
 Founded by Her Husband John D. Rockefeller.

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SKYLINE DRIVE NEAR COMPLETION

The last 30 miles of the Skyline Drive, which has been under construction in the southern section of Shenandoah National Park, will be opened to the public by mid-summer, it is expected, bringing to completion the scenic mountain route which follows the entire park from north to south. Meanwhile, plans have been made ready for beginning construction within a short time of a 27-mile link of the Blue Ridge Parkway in Virginia. The section comprises three units lying between Rockfish Gap and Tye River Gap. Work began earlier in the year on a section extending from Piper Gap (below Roanoke) to the Virginia-North Carolina line. The Parkway is under construction throughout a 140-mile stretch reaching from Adney Gap, near Roanoke, to Boone, North Carolina.

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HISTORICAL SOCIETY ACQUIRES ANTIETAM LAND

Burnside Bridge Farm, 136-acre section of the Antietam battlefields, was purchased this month at public sale by the Washington County Historical Association which, it is understood, will hold the property pending possible enactment of legislation designed to authorize its acceptance by the Service.

"The only outstanding historical structure on this battlefield, the Burnside Bridge, is located on the land," wrote John K. Beckenbaugh, Superintendent of Antietam National Battlefield Site. "The land extends from above the bridge to Snavelly's Ford and over this land Rodman's division advanced from the Ford in turning General Toombs' right flank. It is one of the most historical and scenic sections of this entire area, including as it does about a mile of the Antietam Creek and wooded shoreline."

The farm embraces an area more than twice as large as that now under federal ownership. The National Battlefield Site, established in 1890, was the scene of the struggle of September 17, 1862, when the casualties were greater than on any other single day of the War Between the States.

### THE CONTRIBUTORS

ROY EDGAR APPLEMAN: (See inside covers of the Review, Vol. 1, No. 3, and Vol. II, No. 1).

THOR BORRESEN, born in Kragero, Norway, sailed the sea, served two years in the United States Army during the World War, performed the duties of assistant superintendent during the eight-year restoration of old Fort Niagara, Youngstown, New York, and, since 1934, has been a member of the staff of Colonial National Historical Park, Yorktown, Virginia, where he now is Junior Research Technician. He studied architecture, interior decorating, and designing at Pratt Institute and at the Eva Fay Studio, New York.

FRANK HILTON GROWE, a collaborator in this issue, was born 32 years ago near Little Rosebud Reservation, South Dakota, but has been a resident of Florida since 1912. After attending the University of Florida and Rollins College, he was a railroad employee, deck officer on a steamship, editor of Tampa Life and, two years ago, became Tampa editor of the Federal Writers' Project. He now is local supervisor and historical research editor for the project at St. Augustine.

ALFRED FRANCIS HOPKINS, a Doctor of Medicine, is an expert in old American furniture, in weapons used in America's wars and in military uniforms. Born in Pennsylvania, he received his education in private schools of Austria and France and at Georgetown University. He served in the Motor Transport Corps during the World War, was employed later by the United States Shipping Board and, after a period as member of the staff of Colonial National Historical Park, became Museum Curator at Morristown National Historical Park, New Jersey, the position which he now holds.

HERBERT E. KAHLER, soon after signing his article on Hot Shot Furnaces in this issue, was transferred from the Superintendency of Fort Marion National Monument to that at Morristown National Historical Park. The title which appears on page 11 is, therefore, now anachronistic. (See inside back cover of The Review, Vol. I, No. 4).

ROBERT C. ROBINSON: (See inside back cover, Vol. I, No. 4)



