

DESIGN HARMONY OF MAN-MADE ELEMENTS IN NATURAL SETTINGS AS
EXEMPLIFIED BY THE ARCHITECTURAL RESOURCES AND FACILITIES OF
CERTAIN ARKANSAS STATE PARKS

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DESIGN HARMONY OF MAN-MADE ELEMENTS IN NATURAL SETTINGS AS EXEMPLIFIED BY THE ARCHITECTURAL RESOURCES AND FACILITIES OF CERTAIN ARKANSAS STATE PARKS.

THE GOALS OF THE PUBLIC PARKS MOVEMENT IN THE UNITED STATES

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People visiting parks are almost never conscious of the design of the park or its facilities. For the most part, park designers try to work their craft inconspicuously, drawing as little attention to their creations as possible so the park visitor can give full attention to his enjoyment of the place.

The parking lots, comfort stations, picnic tables and trails are taken for granted by the family that has come for the day or the campers staying for several nights. No one even questions that parks themselves are a legitimate responsibility of government. That appears to be commonly accepted and understood.

Actually the design of parks is very much a matter of concern to those professionals that create, manage, administrate and maintain them. And the idea of parks for public recreation is a relatively contemporary concept.

Frederick L. Olmsted founded the profession of landscape architecture and made parks its province in two bold strokes; the creation of Central Park in New York City and his Preliminary Report (1865) on The Yosemite Valley and the Mariposa Big Trees. ^{X1} In Central Park he established a facility designed for the recreation and enjoyment of the average city dweller. In his report on the Yosemite Valley he argued eloquently for the preservation and conservation of scenic beauty and wilderness.

At the outset, Olmsted envisioned necessary improvements for the enjoyment of visitors:

"..a road to the Mariposa Grove that shall be carried completely around it, so as to offer a barrier of bare ground to the approach of fire, which nearly every year sweep upon it from adjoining country, and which during the last year alone have caused injuries, exemption from which it will be thought before many years would have been cheaply obtained at ten times the cost of the road.

"Within the Yosemite the Commissioners propose to cause to be constructed a double trail, which, on the completion of our approach road, may be easily made suitable for the passage of a single vehicle, and which shall enable visitors to make a complete circuit of the valley and to cross the meadows at certain points, reaching all the finer points of view to which it can be carried without great expense.

"... The object of this arrangement is to reduce the necessity for artificial construction within the narrowest practicable limits, destroying as it must the natural conditions of the ground and presenting an unpleasant object to the eye in the midst of the scenery. The trail or narrow road could also be kept more in the shade, could take a more picturesque course, would be less dusty, and could be much more cheaply kept in repair. From this trail a few paths would also need to be formed, leading to points of view which would only be accessible to persons on foot. Several small bridges would also be required." ^{X2}

Olmsted continued the narrative arguing for cabins to be constructed nearest those places of greatest natural beauty. It is also of interest to note that he insists these recreation facilities be made available to women:

"These cabins would be let to tenants with the condition that they should have constantly open one comfortable room as a free resting place for visitors, with the proper private accommodations for women, and they should keep constantly on hand in another room a supply of certain simple necessities for camping parties, including tents, cooking utensils and provisions; the tents and utensils to be let, and the provisions to be sold at rates to be limited by the terms of the contract." X3.

For most of the early history of the United States and its frontiers land and resource exploitation was the accepted policy. Unreserved and unappropriated lands were public domain and there were no Federal land laws pertaining to most of it. There was therefore no management and no protection from damage or abuse. Public land policy was marked by vacillation, blundering and in many instances plundering and fraud. Surprisingly, the first positive step toward the preservation of public land was taken in the state of Arkansas:

"Although the first reservation of a natural resource for general public use and enjoyment was established so long ago as 1832, when the Hot Springs Reservation in Arkansas was created, this act of Congress marked no definite policy of conservation, for these hot springs were reserved "for the future disposal of the United States" and in order to prevent private exploitation. In 1864 Congress granted the State of California the Yosemite Valley and the Mariposa Big Tree Grove for use as a state park. While recognition was given to permanent public ownership of a natural resource, it appears that this was a function to be exercised by the state rather than by the Federal Government. First acceptance of public control and administration of natural resources as a Federal function for areas of the public domain embracing values of national importance dates from 1872, when the Yellowstone National Park was created." X4.

While Yellowstone marks the start of the national park system, no further parks were created until 1890. In 1891 the Yellowstone Park Timberland Reserve was created. This represents the first public conservation of natural resources for their economic values. From then until 1928 the system of national forests grew to one hundred and fifty.

In 1906, the American Antiquities Act was passed authorizing the President to set aside areas of Federal lands for the preservation of historic landmarks and prehistoric structures, and other objects of historic or scientific interest.

While reservations of land for public purpose were made as early as 1891, (the Yellowstone reservation), outdoor recreation was not of national significance. Although Olmsted recognized the validity of recreation for the masses, it was not until the prosperity after World War I and the development of the automobile that outdoor recreation became a national institution.

F. L. Olmsted made the observation that if the measures which he advocated to protect the Yosemite valley were taken, the scenic resources could be preserved so that one day in the future, after a million visitors the park could continue to serve without compromise of its beauty. His estimation of a century was off somewhat- the visitation at Yosemite hit a million in the 1950s. However, all of the national parks were feeling the pressure of increased public use by the late 1920s.

Increasingly the national park people proposed to divert some of the activity elsewhere;

"Municipal and state parks and national forests together offer outdoor opportunities in countless numbers, and easily accessible. The (Federal) Government finds itself duplicating these areas down to the smallest picnic park. We have gotten away from the fundamental principle that the Government should do nothing that an individual municipality or state can do for itself, and we are competing in little things, numbing public spirit and thwarting local pride of possession and development. The rapidly growing popularity of our National Parks System marks a time when these 'first temples' may safely take their proper place in the higher education of our people in the 'finer things', with which both physical and mental recreation will necessarily be associated." X5.

At the National Conference on Outdoor Recreation in December, 1925, Secretary of the Interior Hoover said:

"The movement to foster public parks for human outdoor life and conservation of wild life is one of our most beneficent public endeavors. And in it we need more action by the individual states. We need also a distinction between the province and responsibilities of the States and the Federal Government. My own thought is that the national parks- the parks within the responsibility of the Federal Government- should be those of outstanding scientific and spiritual appeal, those that are unique in their simulation and inspiration." X6.

Since most of the national parks were in the West, there have been recurring efforts to establish parks in many eastern states. Only in recent decades has that been successful and then only by adopting new definitions of park- eg. "national seashore". The argument was always that we ought not to diminish the park system by the inclusion of anything less spectacular than those places already protected.

"Again, in December 1925, when the National Parks System was threatened with inclusions of unstandard areas in southern states, the American Association for the Advancement of Science passed the following:

Resolved, That the American Association for the Advancement of Science recognizes the national parks as the means of preserving unique representations of the primitive and majestic in nature, and wishes to record its protests against additions to the National Parks System, or change in policy, which may tend to lessen in fact or in public estimation their present high value as natural museums, their complete conservation from industrial uses, and their effectiveness as a national educational institution." X7

Stephen T. Mather, Director of the National Park Service, who was to turn down Petit Jean for inclusion in the National Park System, wrote:

"The National Parks System of the United States is unique both in its scenic exhibits and in the exceedingly high standards by which each candidate for admission to the system is judged. As now constituted, it is made up of areas of incomparable scenic grandeur. Each of the major national parks was selected for parkhood because of some distinctive feature, either scenic or prehistoric, which is of national importance and interest. Under the policy governing the establishment of national parks, only one area of a particular type is considered for inclusion in the system, and each area selected must represent the highest example of its particular type.

"The scenic supremacy of an area alone is not sufficient to gain its admission into the National Park System. It must also be susceptible to whatever development is necessary to make it available for use by the millions of park visitors who may care to use it, without in any way injuring the extraordinary natural features which, under the expressed demand of Congress, the National Park Service is to preserve unimpaired for the enjoyment of future generations.

"Areas whose principal qualifications is adaptability for recreational uses are not, of course, of national park calibre. Proposed parks are measured by the standards set by the major parks of the system; hence the requirements are exacting. As long as these standards shall prevail there is no danger of too many national parks being established, or of the excellence of the present system being lowered." X8

Never-the-less there was continuing pressure to create parks in the Southeast as it became apparent that profitable tourist business attended the creation of a national park.

THE GREAT DEPRESSION AND THE CIVILIAN CONSERVATION CORPS. [Back to Table of Contents](#)

When most people think of the depression today, the stock market crash of 1929 most often comes to mind. Unemployment in 1929 was a little over 3 percent in 1929, but it was to rise to over 25% by 1933. In the midwest it was drought that aggravated the misfortunes of the farmers. Arkansas was primarily an agricultural state and the majority of the farmers were tenants. With crop failures thousands fled to seek employment elsewhere. Many more struggled to survive with welfare assistance.

In 1932 Franklin Delano Roosevelt defeated the incumbent president, Herbert Hoover. He took the oath of office on March 4, 1933 and within hours, as his first official act, decreed a national bank holiday and called a special session of Congress. Unlike his predecessors who relied on businessmen and financial wizards, Roosevelt's aides were scholars. They came to Washington prepared to implement the New Deal that Roosevelt had proclaimed during the campaign. A blizzard of legislation was unleashed in a remarkably short span of time.

"When Congress convened in special session on noon of Thursday, March 9, Secretary of the Treasury Woodin had ready for it the draft of an emergency banking bill...There was not time enough to have the bill printed. The half-dozen typewritten copies that were rushed to the Capitol the morning of March 9 still bore marginal notes and corrections scribbled in pencil. In the House of Representatives there was no pretense of committee consideration. Only a few of the leaders had even seen the text. As the House reading clerk finished reading the one copy available in that chamber, cries went up from the floor. "Vote, vote, vote!" Thirty-eight minutes later the bill was passed by acclamation. The Senate was slightly more deliberate. It listened to three hours of debate... before passing the bill, 73 to 7. At 8:37 that night, F.D.R. with newsreel cameras focused on his desk in the White House, signed the first legislative enactment of the New Deal." X9.

Among the bills passed was the Act establishing the Civilian Conservation Corps, actually "an act for the relief of unemployment through the performance of useful public work, and for other purposes", introduced March 21 and enacted March 31. Never before was there such a mobilization of men and such a collaboration among diverse government departments. Conrad Wirth gives a detailed account of the implementation of the legislation, the organization and events that followed.

Of particular interest here is the portion of the effort he was selected to administer- the camps that would create the state parks. Wirth, a landscape architect with the National Park Service, was destined to become its Director. From a very modest staff of professionals the Park Service was to grow into the largest employer of landscape architects and park planners in the world, while at the same time creating an almost duplicate organiza-

tion to provide the assistance to the creation of state parks. He points out the modest origins of that effort with a look at the National Park Service at the beginning of the New Deal:

"Size of staff was at a low ebb. Salaries were low; in 1932 they had been cut 10 per cent across the board. But we were all glad to have jobs and plenty of work to do. When the CCC and other New Deal programs began, we were happy to be a part of them and to put in long hours, far into the night, with a sandwich and coffee at our desk for dinner."

"We got great satisfaction in providing jobs for others. Highly qualified professionals—architects, landscape architects, engineers—were available in all fields needed to carry out our programs successfully." X10.

Considering the difficulties in assembling and administering the leadership that was to direct the undertakings of such enormous scope, the fact that the results were uniformly excellent is difficult to explain.

The idea of employing young men in this fashion was not universally welcomed:

"William Green, President of the American Federation of Labor, voiced his opposition to the proposal in the joint Senate and House labor committee hearings on the bill on March 23. Green believed that the Army's supervision of the enrollees would lead to the militarization of American youth. Major General Douglas MacArthur, responding for the Army, stressed that the enrollees would not be given military training or be subjected to military discipline." X11.

The Department of Labor was to initiate a nationwide recruiting program; the Army was to condition and transport enrollees to the work camps; and the Park Service and Forest Service were to operate the camps and supervise the work assignments.

The President announced that Robert Fechner would be the director of the Emergency Conservation Work (ECW). The press continued to use the title Civilian Conservation Corps and the name was officially changed to this in 1937. X12

The President insisted that the camps be composed of 200 men doing work programs designed to last for six months and that he would personally approve the camp locations and work assignments. Another stipulation was that the bulk of the funds were to be spent on labor costs relating to work projects and not for the procurement of expensive equipment—that is a bulldozer was not to be purchased, since there were enough men to do the work.

The park service was allowed to hire a limited number of skilled local men, but the bulk of the work force was to be taken from the unemployed in large urban population centers.

On May 11 during the early mobilization efforts, veterans of World War I were permitted to join the ECW:

"These men in their 30s and 40s, were granted special camps, operated on a more lenient basis than the regular camps, and were selected by the Veterans Administration rather than the Labor Department." X13.

District directors supervised the work in the various states, and their staffs evaluated work projects and recommended future projects. Staff inspectors were chosen from the landscape architect and engineering professions, and they were responsible for the progress and quality of the projects and for revising and perfecting design plans.

Herbert Maier, who Wirth describes as "an excellent architect who had done some work for the National Park Service", agreed to take the Rocky Mountain District with headquarters in Denver. Arkansas was in the Rocky Mountain District.

The organization of the CCC camps and their local situation had much to do with the type of facilities that were constructed. Often these facilities were a perfect example of the regional or local style expressed at its most rustic level. The traditional simple house or cabin influenced the design of shelters, cabins and administrative or concession buildings. Local materials, natural stone and timber particularly, were almost always used.

It appears that the rustic conception was well understood at the time throughout the U.S. as being the appropriate expression of park facility. The prototypes were likely the structures already built in the National Parks and those private retreats built in the Adirondacks.

"Toward the end of the nineteenth century, along with the hunters and fisherman who penetrated the wilderness to enjoy the pleasures of the outdoors and the area's abundant fish and game, came the wealthy of the Eastern establishment. They accepted the challenges of the hostile Adirondack environment and built their private retreats often more complex and extensive than those of Newport or Saratoga. Comfort and luxury coexisted with a vague concept of 'roughing it'.

"Camps evolved into complexes of unique and elaborate architectural forms. During the relatively short period from 1870 to 1930, Great Camp builders succeeded in creating a style that, although nationally popularized, rarely achieved the elaboration or refinement of these Adirondack prototypes. This vernacular style, with its mixture of logs, native stone, and decorative rustic work of twigs and branches, has been adopted for hotels in the Pacific Cascades, the Rockies, and the Northern Great Lakes, in private vacation homes, and most notably in National Park Service buildings across the country." #14.

The National Park Service came into being after the parks had been in operation for some time and many buildings had been created by concessionaires and park rangers. Some of these were rustic merely by expediency, some by design. Mather and Albright campaigned for a professional organization. The American Civic Organization was particularly supportive and urged professional groups to support the concept. When the American Society of Landscape Architects met in Boston in February, 1916, a session was devoted to the exploration of the national park problem and its relationship to the landscape architecture profession. In response, the A.S.L.A. passed a resolution supporting the park bureau bill introduced by Congressman Kent of California in January, 1916:

"Whereas, the need has long been felt, not only for more adequate protection of the surpassing beauty of those primeval landscapes which the National Parks have been created to perpetuate, but also for rendering this landscape beauty more readily enjoyable through construction in these parks of certain necessary roads and buildings for the accommodations of visitors in a way to bring the minimum injury to these primeval landscapes.. (it is resolved)... that the American Society of Landscape Architects endorses the Bill (H.R. 8668), entitled a Bill to Establish a National Park Service, and pledges its utmost efforts in cooperation with the American Civic Association, to secure its passage." #15.

Landscape Architect James S. Pray of Harvard observed:

"Let me go on the record as believing that the surpassing beauty of our National Parks is neither safe, nor will be made enjoyable for the maximum number of people with the minimum injury to that landscape beauty, unless the administration of the National Park areas employs the best expert council it can secure in the profession of Landscape Architecture..

Pray then specified four areas where landscape expertise was essential:

"First, a careful determination of proper boundaries of the National Parks, not arbitrary, as those at present, but in consonance with the topography and with landscape unity; second the development of comprehensive general plans for every National Park and Monument showing roads, bridges, trails, buildings, etc., so far as these may be needed, and at the same time can be built without injury to the landscape, and the adoption of a definite policy of development; third, the approval of designs for buildings and other special structures; fourth, prescribing a system of intelligent and scrupulous maintenance having particular regard to the protection of the beauty of the landscape".

X 16.

The bill to create the National Park Service passed Congress and was signed by President Wilson on August 25, 1916. However, Mather collapsed with a nervous breakdown and Horace Albright was acting Director and Congress did not fund the Park Service until April 17, 1917, eleven days after the United States declared war on Germany.

When Mather returned to assume the direction of the National Park Service he made the following statement dated May 13, 1918:

"In the construction of roads, trails, buildings, and other improvements, particular attention must be devoted always to the harmonizing of these improvements with the landscape. This is a most important item in our programs of development and requires the employment of trained engineers who either possess a knowledge of landscape architecture or have a proper appreciation of the aesthetic value of park lands. All improvements will be carried out in accordance with a preconceived plan developed in special reference to the preservation of the landscape, and comprehensive plans for future development of the national parks on an adequate scale will be prepared as funds are available for this purpose." X 17.

Charles P. Punchard, who had been landscape architect for the City of Washington D. C. was appointed as National Park Service Landscape Engineer. It was to be his responsibility:

"..to plan employees' cottages, ranger station, gasoline and oil stations, automobile checking stations, comfort stations, etc., or to criticize plans submitted by the superintendents for such buildings." Mathers instructions, X 18.

When Punchard arrived at Yellowstone in July 1918, the need for new roads, trails and structures was great and he had to deal with many eyesores and poorly located existing facilities.

One project which Punchard collaborated on with San Francisco architect, Charles Sumner was a Rangers' Club or dormitory for Yosemite. It displayed a Swiss facade reminiscent of the Great Northern's Glacier Park designs. Mather was pleased with the result and announced it would serve as a model for needed additional construction at Yosemite.

Punchard was not able to keep up with the many demands for his service and he continued to identify many new problems that needed to be addressed. Mather hired an assistant for Punchard. Punchard, however, died in November of 1920 and Hull assumed his position. Paul Kiessig was hired in the assistant's position. There followed many significant efforts at a variety of parks in the "non-intrusive park style".

In the northern Rocky Mountain parks of Yellowstone and Glacier the "trapper cabin" style of architecture matured under guidance of the Landscape Engineering Division. Graceful log structures displayed purposely crude detail work such as whittled ends of logs on walls and rafters.

Over the next several years many new buildings in several parks were produced, some with the assistance of architects hired to assist the landscape engineers, including a young Californian, Herbert Maier. Maier designed a succession of buildings following his initial success with the Yosemite museum.

Not all the new structures were of logs and stone but all were sympathetic to their site and contributed to the growing park design vocabulary. One notable departure from the previous structures and construction techniques was a hotel for Yosemite designed by Underwood which opened in July, 1927. It was a five-story, irregularly shaped structure. Constructed with large stone piers, concrete and steel, it managed to seem in scale with the cliffs of Yosemite valley. The innovative use of modern construction techniques established a new direction for the rustic architecture movement. Here much of the exterior logwork was concrete molded and painted to look like wood. Only the log roof truss of the dining room was real.

In retrospect it seems incredible that the professional staff of the National Park Service which was so small at the start of the depression was able to accomplish the work program that was thrust upon them. Most of the men who were hired in the early days had little or no academic training. Even Thomas Vint who replaced Hull when the latter chose not to accompany the change of the office from Los Angeles to San Francisco learned most of his skills on the job, beginning as a draftsman.

Merel Sager was hired in the summer of 1928. He had been trained as a landscape architect at Harvard and he helped Vint write the first civil service exam for landscape architecture. He passed the test and earned a permanent position. In 1928 Mather authorized five

additional landscape architect positions in Vint's shop and the previous title of landscape engineer was changed to landscape architect at Vint's instigation.

By the fall of 1931, the Landscape Division consisted of fifteen permanent and four temporary positions. Each new designer was trained in the park service rustic style. Once the great expansion of projects which the CCC permitted took place it was no longer possible to train each professional in the San Francisco office in the manner of an apprentice as before. It is even more amazing that, at the same time, the park service was called upon to staff a state park assistance program that was even more ambitious than that of the camps assigned to national parks.

Herbert Maier, mentioned earlier, was one of those committed to the concept of rustic architecture. By 1934, he had moved his office from Denver to Oklahoma City from where he could direct the development of parks from Texas and Arkansas to the Dakotas. Like the other E.C.W. district officers he had difficulty in recruiting competent professionals:

"He searched in particular for imaginations capable of working in the heavy stone and timber concepts he had developed several years earlier at Yellowstone. When he found men with potential he grabbed them as best he could. Typical in this respect was Cecil Doty, who had taken a degree in architecture from Oklahoma A. & M. in 1928, came to notice of Maier through a mutual friend Maier had already hired. A quick look at Doty's work told Maier that this was a man he could use, but Doty did not have proper civil service certification. Maier went ahead anyway and hired Doty as a file clerk, converting him to an architect as soon as that was possible." X 19.

"Maier's District III design office supervised development of a number of state areas in Arkansas, including the Petit Jean, Devil's Den, Crowley's Ridge, and Mount Nebo State Parks. Development of the

Boyle Metropolitan park at Little Rock also came under Maier's responsibility. In these parks, the dense natural vegetation of Arkansas made unnecessary the stark heavy masonry designs Doty developed for use on the great plains." #20.

"The district directors supervised the work in the various states, and their staffs evaluated work projects and recommended future projects. Staff inspectors were chosen from the landscape architect and engineering professions, and they were responsible for the progress and quality of the projects and for revising and perfecting design plans." #21

"There was one inspector for every five to seven camps, who remained in the field moving from one camp to the next. Every 10 days the inspectors submitted reports to the district offices and Washington. Based on Washington guidance, the inspectors were to discourage any undertakings that would adversely affect the natural character of the park and prevent those activities that would prove harmful to the native animals and plants. Ideally, they were to bring to the states information concerning good forest management practices and to promote high-quality development. The NPS Washington Office made the final determination on new state parks projects, new camps, requests for funding allotments, personnel matters, and land acquisition.

"State ECM camps were administered by the state authorities, but the technical supervisors and project superintendents were paid out of federal funds. The states were given a specific allotment and were responsible for dividing these funds among the various camps under their jurisdiction. The Park Service assisted the states in drafting legislation necessary to the planning, development, and maintenance of their state park systems and with technical guidance and assistance. State parks work projects involved recreational development, conservation of natural resources, and restoration and rehabilitation of cultural resources." #22.

STATE PARKS

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Arkansas was one of the states that did not have a state park system when the National Park Service began to assist in the development of several parks under the CCC program. The idea of preserving some of Arkansas' natural beauty evidently predated that:

"The idea of a great area for public recreation in Arkansas, which at the same time would conserve one of the few remaining primeval forests of our State, had its beginning back in 1907; but at that time we knew nothing about State Parks. I simply knew that near my home was an area of surpassing natural beauty that ought to be conserved for the benefit and enjoyment of future generations. In this I had the support of the Fort Smith Lumber Company, with whom I had come to this country as physician, and who owned most of the area that it was proposed to conserve. But after thinking and talking about it more or less constantly for fourteen years, during which time I received no helpful suggestion from any source, I was as much at a loss as to how to proceed as in the beginning. Finally, knowing that it was not the proper step to take, I asked our representative in Congress to introduce a bill providing for the acceptance of this small area - it was only 1,540 acres, as I recall - as a national park." #23

In this account of the events, Hardison goes on to describe his meeting with Stephen T. Mather, for whom the lodge at Petit Jean was subsequently named. It is very likely in some measure due to Hardison's regard for Mather:

"It happened that, as the bill was introduced, Stephen T. Mather, Director of the National Park Service, was en route to Hot Springs National Park, and our representative wired me to see Mr. Mather and try to enlist his support of the bill. After an hour's conversation with that kindest and most courteous of men, and with his assistant, Arno B. Cammerer, now Director of the National Park Service, I was told that our area was not suitable for a national park and advised to turn my attention to bringing about its acceptance as a state park.

"I had never heard of a state park, and I doubt that anybody in my State had; but I took Mr. Mather's advice, and sustained by his constant encouragement, in a comparatively short time I had the satisfaction of seeing Petit Jean State Park created by a special Act of the Arkansas Legislature. This was in February, 1923, and in May of that year I attended the Third National Conference on State Parks at Turkey Run State Park in Indiana. There I came under the influence of Colonel Richard Lieber, Major W. A. Welch, Dr. L. H. Pammel and others who were leading the state park movement. A year or so later, Raymond H. Torrey came to Arkansas as Field Secretary of the National Conference, and during this and several subsequent visits, Mr. Torrey gave aid of the most constructive and helpful kind. More than to any other man, we are indebted to him for the beginning of a public interest in state parks in Arkansas.

"Though we had one state park as early as 1923, we did not have an adequate state park law until a few months ago. When Petit Jean State Park was formed, responsibility for its administration, for want of a better agency, was placed in the reluctant hands of the State Highway Commissioner; and from one agency to another, mostly reluctant and altogether incompetent, the interests of the state park movement in Arkansas was shifted with changing political administrations until two years ago, when by sheer political accident we acquired a state park leader in the person of Attorney General Carl E. Bailey, ex officio Chairman of the State Park Commission, who saw something else in state parks than material for a new sort of campaign oratory.

"During his two years as chairman of the commission, Carl Bailey took more than a perfunctory interest in state parks. He visited and became acquainted with the natural advantages and needs of each park. He envisioned the twofold scope of an intelligently planned and wisely administered system of parks in Arkansas, and when he became Governor last January, one of his first recommendations to the Legislature was the passage of an act that would create a state park commission with the authority and the means to undertake a constructive work in Arkansas.

"The bill that we have enacted in Arkansas is ... recommended by the National Park Service, with slight alterations to fit the special needs of our State. It provides, in the first place, for an honorary commission - that is one whose members serve without pay - of five members appointed by the Governor, and selected because of their interest in, and knowledge of, conservation and recreation; not because of the political influence they may have in their respective quarters of the State. The term of one member expires each year. The executive officer of the Commission is a State Park Director, who is paid a good salary and who is in the present instance a thoroughly competent man, having had four years' experience as project superintendent of our most important park.

"The Commission may acquire by purchase, gift, trade, lease or condemnation any land that is deemed necessary or desireable for the extention of the park system. It also may declare any state-owned land including that forfeited for non-payment of taxes, a part of adjacent or near-by park. By this means we have already added to Petit Jean Park approximately four hundred acres which we expect to consolidate with the main body by purchase of intervening tracts. This process can be continued indefinitely bringing into the several park areas of the State thousands of acres of forest land at no cost at all.

"Until this provision was put into effect, as fast as timbered land reverted to the State, it was grabbed up by one or another of the operators of numerous small sawmills throughout the mountains and stripped of everything that would make a two-by-four. In one instance a tract actually touching Petit Jean Park was completely denuded of pine by one of those conscienceless operators and the lumber hauled through the park to town.

"One of the most important provisions of our law is that designating the State Park Commission as the sole agency for the control and management of state-owned parks and recreational areas of all types. This vesting of exclusive authority in one commission has obvious advantages in efficiency and economy, and already has resulted in the prevention of the development of a number of small areas that could not

be justified by public need, and which were in no sense conservation areas.

"Other provisions embodied in the act make it possible for the Commission to deal competently with any situation which is likely to arise. On the whole, we believe that we have an act that meets our needs. But we recognize that our law, or the law of any State, must depend for its efficiency upon the ability and consecration of its administrators." * 24

It must be remembered that there were no clients for the parks being created during the days of the CCC. Few people had the wealth and leisure at that time and those that did had little inclination to travel to remote parts of the country to recreate except for those exceptional quality areas such as Yellowstone or Yosemite. The park projects were to keep men employed and coincidentally to train them in craft skills.

In many instances, but particularly recreation demonstration areas, the lands were often badly used and worn-out farms which had little attraction as parks until conservation measures and tree plantings matured and streams flowed clear.

The rustic nature of CCC work grew from the Park Service tradition as we have pointed out, but there were other factors as well. The young men employed were largely unskilled, many were illiterate. They were allowed to remain in camp for a limited time after which they presumably could compete in the open market for jobs on the basis of their new skills.

The limitations of budget dictated maximum use of local materials and the lack of heavy equipment and trucks emphasized readily available materials. The nature of the work contributed to a recognizable style which verged on the vernacular. Since most of the experienced craftsmen were hired locally they were

most apt to introduce a local flavor to the product. Because the process was labor intensive, individual craftsmanship and handwork became the dominant design expression.

The few educated and trained professionals that were recruited to direct the work in the field often made a considerable contribution to the quality of the work. For many it was a training ground, as the depression deprived many from completing their studies or securing appropriate employment. Construction methods had to be extremely simple since labor was largely inexperienced. A check on design quality was provided by the federal inspector.

Considering the enumerated difficulties, the quality of the work in the parks studied was surprisingly high. It is attributable in part to the skills of the local men hired to instruct and assist who were evidently very proficient and would not normally have been unemployed if there was any other building activity to be undertaken.

In the case of Petit Jean, we know from interviews that a number of WWI veterans were employed who brought skills to the job. Whenever any particular special skill was required there was always an experienced man available.

We would normally design a park based on the capabilities of a site and an estimated number of visitors. We would locate parks in relation to the contributing population. During the CCC days, however parks were located primarily in terms of economic need. There was little concern about their ever attracting a particular number of visitors and certainly nobody anticipated the common man being in command of his own private conveyance and traveling easily to remote sites. For fifty years americans have enjoyed the bounty of parks and recreation areas created during the depression years.

The problem today arises out of the aging of those parks and facilities. Not all of the designs and construction methods were well advised. We are faced with decisions as to what to keep and restore and what to replace or add to. We can no longer employ labor intensive methods in our construction. At the same time we must be respectful of the context into which our new construction is to be placed.

Having outlined the manner in which our parks came into being and having traced the development of the rustic style of "parkitecture" let us now examine the application of the rustic design techniques in natural settings and particularly the Arkansas experience as manifested in Petit Jean, Mt. Nebo and Devil's Den state parks.

ACHIEVING APPROPRIATE DESIGN IN NATURAL SETTINGS

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The quality of most of the work accomplished during the National Park Services' assistance to the CCC program in Arkansas was high. We have already mentioned some of the factors contributing to the program's success such as the availability of skilled craftsmen. The influence of competent professionals was also a factor, both at the administrative level and in the field. Since then we have rarely enjoyed the luxury of having capable people supervising work in the field.

Employing a landscape architect is not enough to assure an understanding of design in the natural context. As Thomas Vint described the role of the NPS landscape architect to the Civil Service Commission in 1928:

"The work of the Landscape Division in the National Park Service is of a different character than the general practice of the landscape profession. While landscape thought predominates in the work, it merges into the field of architecture. We have little use for a landscape man whose experience is entirely limited to the planting of shrubbery." #25

Similarly, an Engineer or Architect without a sensitivity to the landscape and experience in the rustic kind of work is of little help. The difficulty is that no school trains professionals for this role, at the present time. For a period after WWII and up to the fifties the N.Y. State College of Forestry had a program in "Landscape Engineering and Recreation Management which was intended to provide recruits for park work. Many graduates succeeded in positions with the Park Service and Forest service. In the fifties the program changed to conform to the accreditation standards of the ASLA and the degree offered since then is a Bachelor of Landscape Architecture.

Because the problem of competent designers was evident at the time of the CCC program, direction in the form of published guidelines was attempted.

This effort took the form of a publication entitled Park Structures and Facilities. Conrad Wirth refers to the publication in Parks, Politics and the People, although his memory is faulty as to the date of first publication. The first printing of 2250 copies occurred in 1935 with an acknowledgement by Wirth himself, in which he points out the funds for publication were allotted from the Emergency Conservation Work funds by Robert Fechner, the Director.

The publication date in 1938 to which Wirth referred was for an expanded edition of three volumes:

"Administrative and Basic Service Facilities," "Recreational and Cultural Facilities," and "Overnight and Organized Camp Facilities." The Superintendent of Documents subsequently printed chapters which were available for many years afterward.

Arno B. Cammerer in a forward to the first edition stated:

"In any area in which the preservation of the beauty of nature is a primary purpose, every modification of the natural landscape, whether it be by construction of a road or erection of a shelter, is an intrusion. A basic objective of those who are entrusted with development of such areas for the humane uses for which they are established, is, it seems to me, to hold these intrusions to a minimum and so to design them that, besides being attractive to look upon, they appear to belong to and be a part of their settings."

"For some years the National Park Service, State Park authorities and other agencies which administer natural park areas have been attaining a constantly improved technique of design and execution for the structures that are required for safe, convenient and

beneficial public use of these parks. Progress in this field has been especially marked since the inception of the Emergency Conservation Work program, with its steadily increasing and sound emphasis on development of recreational facilities, particularly in State Parks. Stimulated by the problems this work has presented, competent architects have produced designs and seen them converted into reality - that denote a real advance in this somewhat specialized field."

X 26

Happily we found edition number 246 of the first printing residing in the Office of the Arkansas State Parks Director. One of the authors possessed reprints of the later edition. Both have proved valuable in this work. As a consequence we have made copies, of which one will be deposited in the University of Arkansas library.

As significant as the examples are and as beneficial as the discussion of them, the highlight of the publication is the "Apolo-gia" penned by Albert H. Good who assembled the examples. For this addresses the philosophical and ethical nature of design. He points out:

"...man may well conclude, pending achievement of greater skill and finesse, that only the most persistent demands for a facility shall trap him into playing the jester in Nature's unspoiled places. He may well realize that structures, however well designed, almost never truly add to the beauty, but only to the use of a park of true natural distinction."

"...every structure, however necessary, can only be regarded as an intruder. Confronted with the so-called development of such areas for his own greater use and enjoyment, he has on occasion recognized these first principles, to the masterly accomplishment of rejecting, sometimes with a semblance of consistence, the temptation to embellish Nature's canvas. He has sometimes even confined himself to building only such structures as long and thoughtful consideration demonstrates he cannot do without. The success of his

achievement is measureable by the yardstick of his self-restraint.

"...He (man) has come slowly to sense that, if the trespass is unavoidable, it can be done with a certain grace. The need proved, his undertaking is somewhat legitimatized, or not, by harmony or the lack of it. He is learning that harmony is more likely to result from a use of native materials. He shows signs of doubting the propriety of introducing boulders from a distance into a setting where nature failed to provide them, or of incorporating heavy alien timbers into structures in treeless areas. He sometimes even indicates a faltering of faith in the precision materials produced by his machines, and so evidences, along with a creditable humility, his growing understanding of the fitness of things.

"As he comes vaguely to sense that he cannot improve on Nature, but rather can only facilitate the way to his understanding and enjoyment of her manifestations, he tends to a kindred humility toward the remote past.

"....In fitting tribute he graces his encroachments by adapting to his structures such of their traditions and practices as come within his understanding.

"The style of architecture which has been most widely used in our forested National Parks, and in other wilderness parks, is generally referred to as 'rustic'. It is, or should be, something more than the worn and misused term implies. It is earnestly hoped that a more apt and expressive designation for the style may evolve, but until it appears, 'rustic', in spite of its inaccuracy and inadequacy, must be resorted to in this discussion. Successfully handled, it is a style which, through the use of native materials in proper scale, and through the avoidance of rigid, straight lines, and over-sophistication, gives the feeling of having been executed by pioneer craftsmen with limited hand tools. It thus achieved sympathy with natural surroundings and with the past."

THE PARK PLAN

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It should hardly seem necessary to emphasize the importance of an overall plan. This is realized not only from a program of needs expressed as facilities and buildings, but a thorough analysis of the attributes of site. Those opportunities for recreation or those site attributes that lend themselves best for certain purposes. The plan begins with cataloging the particular virtues a park possesses. In addition there are the constraints of access - from where will visitors come and how will they navigate to the points of interest and recreation. What constraints does the site itself present to realizing a functional plan - slopes, orientation, prevailing wind, vegetative cover, availability of necessary utilities and sources of construction materials.

The National Park Service pioneered the Master Planning Concept. For each addition to the system a total plan of development is prepared which deals with the ultimate projected development of facilities and program. It looks to the future, not merely the immediate requirement for a particular improvement. When a program of needs has been arrived at, design decisions can be made:

"Since structures exist in parks through suffering, it follows that it is highly desirable in every area to keep down the number of them. A small area can be ruined by a clutter of minor buildings which, however necessary their purpose, seem to have been forced into every vista to inflict a consciousness of the hand of man. Two functions or even more, where closely related at a given location, should be combined under one roof. This is not in defense of excessively large buildings. It is sound practice only within reasonable limits. It is based on a belief that a localizing of infection is preferable to an irritating rash of trivial structures all over an area." X28

If facilities already exist in a park, they must be taken into account. There is some logic in continuing an established style:

"The structures necessary in a park are naturally less obtrusive if they are reasonably unified by a use of one style of architecture, limited construction methods, and not too great variety of materials. When a truly inappropriate style of architecture already exists in a park in which new work is contemplated, it is urged that the new buildings do not stubbornly carry on the old tradition. The best judgment available should be consulted to determine upon the style most appropriate to the area, and this then frankly and courageously launched. If the new style is the more appropriate one, it will prevail. In course of time the earlier, inappropriately styled buildings, will, in the very fitness of things, be eliminated." X29

Perhaps the greatest difficulty for most architects confronted with designing a project in a park context is the necessity for subordinating his pride of creation. Most architects design buildings that call attention to themselves and proclaim the skill of their designer by mastery of style, form and materials. Novelty and audacity are unwelcome in the park context, monumentality an outrage.

"Although a park structure exists solely for the use of the public, it is not required that it be seen from some distance. In its most satisfying expression, the park structure is designed with a view to subordinating it to its environment, and it is located so that it may profit from any natural screening that may exist. Suitable signs marking the way to a particular building which has been appropriately retired are to be preferred to the shock of finding a building intruding at a focal point or visible to great distance."

"The subordination of a structure to environment may be aided in several ways. One of these is to screen the building by locating it behind existing

plant material or in some secluded spot in the terrain partly screened by some other natural feature. In the absence of such screening at a site otherwise well suited for the building's function, an adequate screen can be planted, by repeating the same plant material which exists nearby. Preferably, structure will be so located with reference to the natural features of the landscape that is unnecessary to plant them out." X30

COLOR

Color is seemingly one of the biggest problems in park design. It seems universally accepted that park colors should be brown and green. Here again, our author was well spoken:

"The color of the exteriors, particularly the wooded portions of park structures, is another most important factor in assimilation. Naturally such colors as occur in, and are commonest to, the immediate surroundings serve best. In general, warm browns will go far toward retiring a wooden building in a wooded or partly wooded setting. A light driftwood gray is another safe color. Where contrast is desired to give architectural accent to minor items, such as window muntins, a light buff or stone color may be sparingly used. Strangely enough green is perhaps the hardest of all colors to handle, because it is so difficult to get just the correct shade in a given setting and because it almost invariably fades to a strangely different hue. A green roof might be expected to blend with the green of the surrounding trees, yet because a mass of foliage is an uneven surface, intermingling other colors, and broken up by patches of deep shadow and bright openings, and because a roof is a flat plane which reflects a solid continuous color, anything but harmony results. Brown or weathered gray roofs, on the other hand, blend with the colors of earth and tree trunks to much happier results." X31

SCALE

Scale is the relationship of the size of a structure to its surroundings. All too often structures placed in the natural landscape

seem too small. Columns or posts supporting a porch may be structurally adequate but appear spindly in the context of large trees. Detailing must recognize the circumstance of the facility:

"In high, mountainous and forested regions the various structural elements of rustic construction - logs, timbers, rocks-must be reasonably overscaled to the structure to avoid being unreasonably underscaled to surrounding large trees and rough terrain. In less rugged natural areas, the style may be employed with less emphasis on oversizing. For pleasing harmony, the scale of the structural elements must be reduced proportionately as the ruggedness and scale of the surroundings diminish. When this recession in scale reaches a point at which there is any hint of 'twig' architecture masquerading under the term 'rustic', the understanding designer will sense immediately its limitations and take refuge in some widely different style.

"As a rule, park structures are less conspicuous and more readily subordinated to their settings when horizontal lines predominate and the silhouette is low. Verticality will therefore be avoided wherever possible. This usually calls for a roof low in pitch, perhaps not more than one third. Too frequently, roofs needlessly dominate both structure and setting."*32

The degree of that sought-for primitive 'character' in park structures that native materials can contribute depends entirely on intelligent use. The quality, not the fact, of 'nativeness' of materials is of value. Local stone, worked to the regularity in size and surface of cut stone or concrete block, and native logs fashioned to the rigid counterpart of telephone poles or commercial timber have sacrificed all the virtue of being native.

"Rock work needs first of all to be in proper scale. The average size of rocks employed must be sufficiently large to justify the use of masonry. Rocks should be placed on their natural beds, the

stratification or bedding planes horizontal, never vertical. Variety of size lends interest and results in a pattern far more pleasing than the produced by units of common or nearly common size. Informality vanishes from rock work if rocks are laid in courses like brick work, or if the horizontal joints are not broken. In walls the larger rocks should be used near the base, but by no means should smaller ones be used exclusively in the upper portions. Rather should a variety of sizes be common to the whole surface, the larger predominating at the base. Rock should be selected for its color and hardness."*33

CCC ADMINISTRATION AND STAFFING AT STATE PARKS

The Arkansas State Park system had its beginning with the CCC programs. Although Petit Jean, Mt. Nebo, and the Arkansas Post were designated state parks before the CCC period, none were properly developed for public use. The State Parks Commission was formed as a 'sponsor' for the CCC. Its primary purpose was to plan projects that would be funded and constructed by the CCC and serve as state liaison. Upon completion of the projects, the parks would be turned over to the state.

On the Federal side, it was the State Parks Division, National Park Service, that oversaw the construction planning. The National Park Service hired all technical personnel.

The architectural and planning work was gradually transferred from the Federal to the state and local level in the years 1933-1938. Drawings from Devil's Den and Petit Jean were done for the State Parks Division of the National Park Service in 1933-34, but in 1935-38 were done for the Arkansas State Parks Commission, although they were still reviewed by the N.P.S.

As in all CCC projects nationwide, it was the cooperation of several Federal agencies and state officials that made the projects at Petit Jean, Devil's Den, and Mt. Nebo possible. The state submitted requests for the location of camps to the State Parks Division. A CCC camp was the object of intense lobbying on the part of local boosters, especially at Mt. Nebo. An inspection process by representatives of the Army and the National Park Service revealed the merits of the project, as well as transportation, sanitation and water facilities for the CCC enrollees.

As the parks developed, a key actor became the regional National Park Service Director. Milton J. McColm was the Director for the Arkansas region, working under Herbert Maier. Travelling from site to site, Mr. McColm kept tabs on the work. To the technical staff (the architects, landscape architects, engineers and projects supervisors) and the state officials, he represented the highest level



(from left to right) Charley Smith, Clearing and Planting Crew Foreman; Stanley Amsler, Office Manager (brother of Guy Amsler, Senior who wrote the necessary legislation to establish the State Parks Commission and obtain the CCC camps); Dave Graves, foreman for trail building and small specialty building; Bill Stringer and Paul Gordon, Road construction foremen; Ladd Davies, Engineering Assistant and Survey party chief; Sam Davies, Project Superintendent (Ladd's father); Milton J. McColm, NPS District Inspector; Charles Gustafson, carpenter; Bert Hunter, Assistant Surveyor (no relation to the Hunter who was landscape architect at Petit Jean); Mel Pierce, Stone Mason Foreman; Ben Bowen, Chief Mechanic and Transportation Supervision; Carl Overstreet, Road Construction Foreman. All were assigned to Petit Jean with the exception of McColm.

of decision making that could make or break their CCC projects. His visits often coincided with visits by reporters, politicians and prominent businessmen. Treated with great respect, he was shown the completed work in detail, even though he often arrived with only a few days notice.^{X34} His recommendations concerned the development of the parks as a whole, the acquisition of property, and the ability of the fledgling State Parks Commission to utilize the CCC camps. He exerted a powerful influence on the size and extent of the three state parks under discussion. To give an example, in a short comment reported in the Arkansas Gazette, it was pointed out that:

"the development of (Mt.) Nebo is seriously handicapped by the inability of the state to fill in the gaps in its park area."^{X 35}

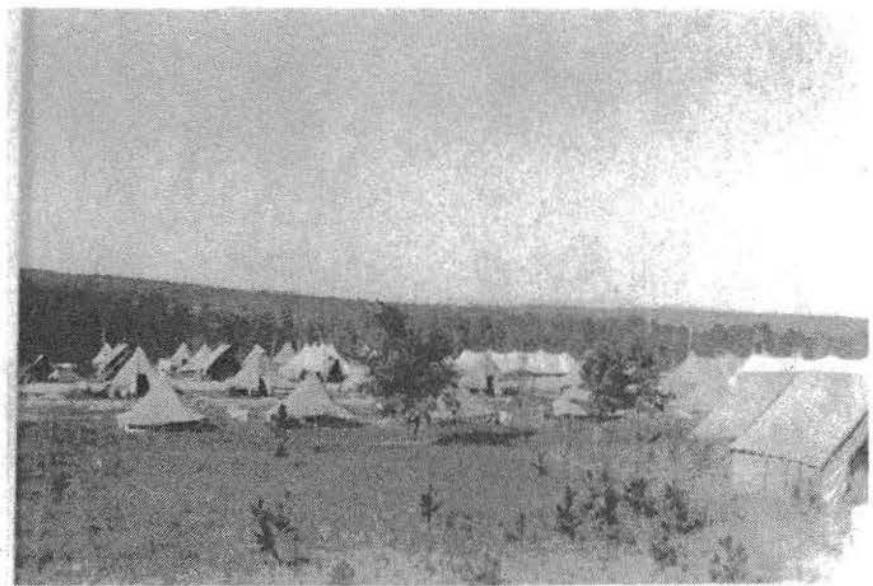
This problem eventually led to the withdrawal of CCC support. Pinpointed by McColm over 50 years ago, the mixture of private and public property on Mt. Nebo continues to plague the state park system today, creating serious administrative and policing problems.

Petit Jean, Mt. Nebo and Devil's Den were three of the five existing state parks constructed by the CCC. The others were Crowley's Ridge and Lake Catherine. An additional park, Buffalo River, is now part of the National Park system. Petit Jean's camp was partially composed of World War II veterans, as was Mt. Nebo's. Devil's Den had two camps, one at the rim of the valley, and one down near Lee's Creek. Normally a CCC camp contained a mess hall, recreational hall, headquarters, hospital, wash house, and barracks. Most of these were dismantled when the CCC left. During the first few months the enrollees lived in tents.

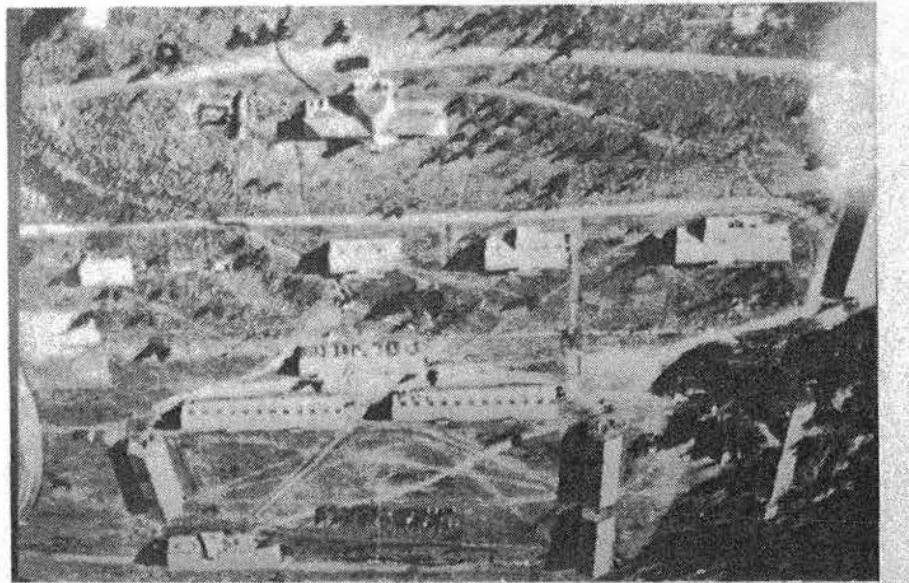
The camps were organized with approximately 200 men apiece. The army was in charge of



Sign commemorating CCC Camp #1781, Petit Jean. Remains of fireplace in mess hall are at left.



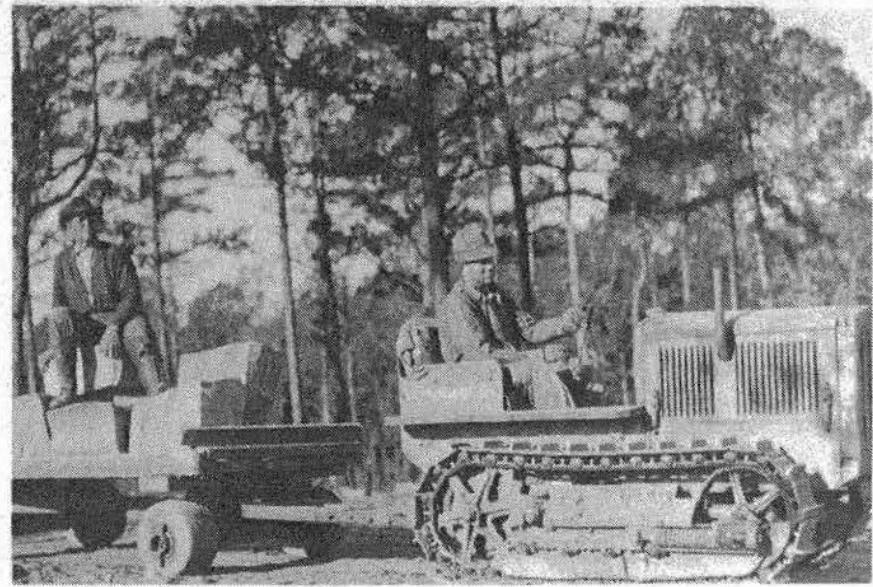
CCC tents during the first summer at Petit Jean (1936). Files of Park Interpreter, Petit Jean.



Camp at Petit Jean. Mess hall is at upper right, barracks around court. Headquarters and hospital are in middle row. Superintendant's house, at bottom, is permanent. Files of Park Interpreter, Petit Jean.

the everyday living quarters, meals, recreation, and discipline. The technical staff for the construction work was hired by the state, but paid by the National Park Service. The two staffs - army and professional - were separate and each had distinct functions. The process of starting work on the site was not without administrative tangles. Guy Amsler, who, as secretary of the State Park Commission, was in charge of procurement for the park construction, described the hectic days starting up the camp:

After the application was approved, the Federal government sent instructions for ordering tools. All labor was to be done with hand tools, with the exception of tractors. But before Amsler could order the tools, the CCC sent 400 men to the camp. They had no tools to work with, "nothing to do . . . so I made up a list . . . and sent it to the government and never heard a word for weeks . . . and every time I'd go over to the park these captains would be raising the devil about not having anything for these men to do. You had to take bids on everything above a hundred dollars, and you could buy first hand anything under a hundred dollars. . . So I went down to Fones Brothers and we got all the tools, \$100 at a time on different days, different times." #36



Tractor pulling a wagon loaded with cut stone, Petit Jean. (Note: most of the historic photographs at Petit Jean were donated by John Hunter, nephew of David P. Hunter, landscape architect, and are in the files of Ben Swadley, Park Interpreter, Petit Jean)

The capabilities of the technical staff hired for each park was uneven. For each camp, 12 civilian specialists could be hired by the State. Two had to be civil engineers and two had to be landscape architect/engineers. In addition, there were several statewide employees: Leo Deiderich, a landscape architect, was one, and Graves, Arkansas Inspector for the N.P.S. was another. Most of the younger designers were relatively inexperienced, and depended upon direction from the N.P.S. staff, their native intelligence, and the advice of the skilled carpentry foremen and stone masons. The CCC men who were older veterans at Petit Jean and Mt. Nebo had men with additional skills such as in metalworking.

The relationship of the craftsmen or builders and the professional architect and landscape architect was clearly a crucial one in the CCC work. How much was designed on paper? How much was designed in the field? Drawings were done for major work such as cabins, road alignments, and parking lots. Supervision of the work by the designer was very direct, however. At Devil's Den, the architect Paul Young and the crew foreman located cabins, supervised clearing the site, and strung the batter boards. The close attention paid by the architect to every stage of construction resulted in careful detailing in wood and stone - the joints where timber logs went together, the location of steps, the construction of roofs, etc. Besides evidences of competent carpentry, the skill of the stone mason is also very apparent. Particularly in the stonework surrounding the cabins, the design depending on the placement of each successive rock which was of a slightly different shape and size.

The philosophy of design which links the craftsman to the designer was first expressed by William Morris (England, 1834-1897). In



Stone construction, Petit Jean. On the left is a winch for lifting stones into place. File of Park Interpreter, Petit Jean.

response to the mechanization of the industrial revolution, he asked for a return to the pride and skill of the medieval builder. Typically, the Arts and Crafts style resulted in an environment of high detail: one which overlaps at many levels of design.^{X37} This has application to the CCC work because of the parallels in construction techniques which closely involved designers, skilled carpenters and stone masons, as well as a large number of unskilled men who were learning these crafts. An unresolved disagreement among N.P.S. personnel was whether to use old construction techniques (logs, stone foundations) or newer ones (conventional framing, concrete foundations). Both techniques were used at the three parks under study.

Ironically, many of the skills learned in the CCC camps were probably as useless as the skills glorified in the Arts and Crafts Movement. In most cases, time had simply passed these methods of construction by, even in the 1930's. In the years to come, the cost of construction, the lack of labor to move and place large stones, the modernist attitude toward design which denigrated the handmade rough hewn historic style in favor of direct application of materials such as concrete and steel, and the lack of opportunity to bring together the builder and designer at the job site doomed the continuation of this type of construction in the State Parks.

PARK DEVELOPMENT PROCESS; PETIT JEAN

For the three state parks in this study, CCC park development was primarily a matter of opening up the beauty of the site to visitors. M.C. Blackman described this as:

"unlocking a gate to a garden" *38

Petit Jean's Master Plan Outline from 1938 states that the park was set aside for recreational use "because of its outstanding, rugged beauty". The terrain is described as "a rolling upland plateau, dropping off abruptly . . . on the west side, the park is deeply cleft by an impressive, colorful and partially palisaded canyon, formed by the erosion of Cedar Creek which enters the head of the canyon suddenly over an impressive water fall . . . It is nationally famous for its rich lichen flora . . ." *39

Devil's Den was just as impressive. A visitor to the site said:

~~"Masses of stone, often as large as temples or capitois, have tumbled into the chasms, or settled awry into chaotic position, leaving great clefts and cliffs. Over these, in primal confusion, mosses and~~

lichens have grown gray-green cowls. A primitive vastness seizes the senses at every turn. The whole region is a challenge to the spirit of exploration." *40

In the minds of those men from the National Park Service who began the development of these parks, the natural features of the site took precedence. The trick was to harmonize park structures with the character of the environment. This is why the site planning, trail design, and road work are equally as important as the more visible cabins, picnic areas, and recreational lakes.

At Petit Jean, Master Plans were drawn up by Leo Deiderich and David C. Hunter, landscape architects. Although very few drawings from Petit Jean remain, those that do reveal a stylish quality. Ladd Davies recounts one of the man's reaction to the drawings, "One of the men was holding (the drawing) upside down, and I asked him why. He said:

'this looks like the drawings of babies I used to see in some of my father's doctor books'.

I said,

'Oh, come on, turn that thing around. That was done by Leo (Deiderich), you know he does things fancy'.

He said,

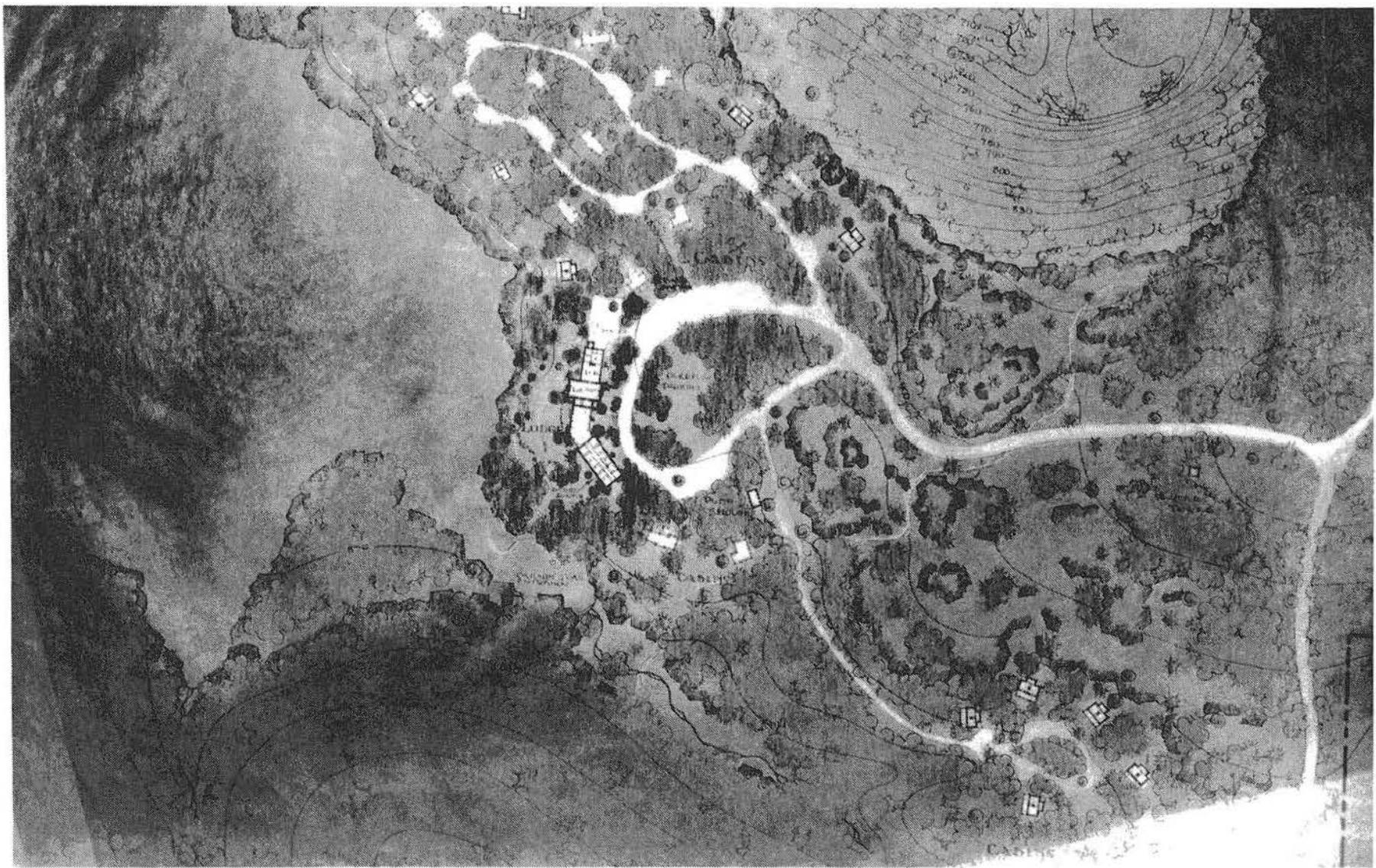
'That there's got taste'.

I said,

'what?'

'Taste, you know, what women got about clothes and stuff.' *41

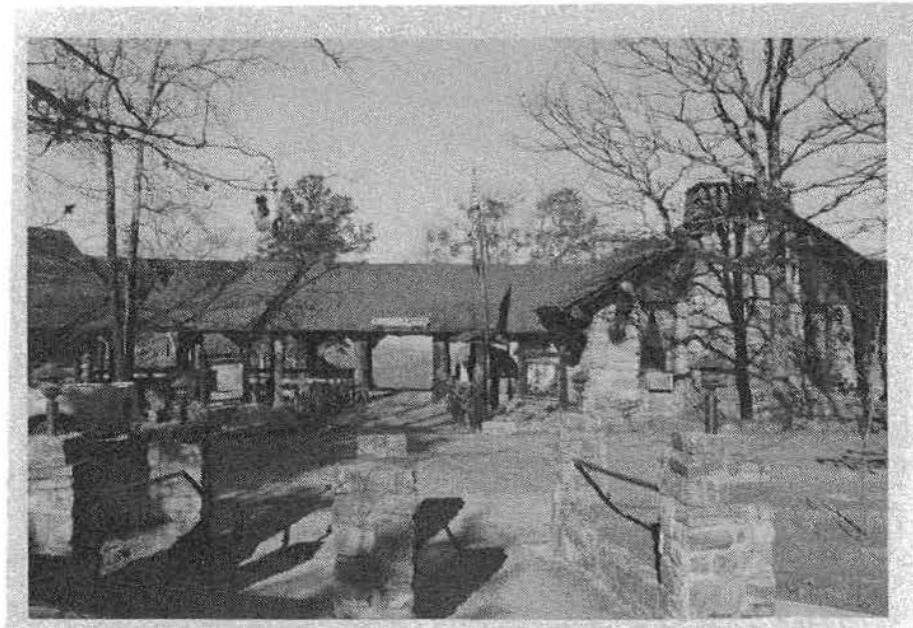
Although the expression was odd, it is clear that the crews knew there was a special quality about the designs.



Master Plan, Petit Jean Lodge and Cottage Area, Leo Deiderich and David C.
Hunter, Landscape Architects, Plan #PJ 9116-B, 1\26\38

Site planning at Petit Jean included the development of two major areas: the lodge and cabins on the bluffs, and the day use area near the two lakes (one 3 acres and the other 120 acres). The lodge was placed on a prominent point, commanding a view of the canyon, the creek and, through the canyon outlet, a view of the Arkansas river valley. Moreover, its western orientation faces the sunset. Because the structure is split, with an open walkway between, the visitor is immediately aware of this spectacular view. Cabins are located along the edge of the bluff, with large porches facing the view. More modern cabins have been inserted since the 1930's. A major problem in layout which has never been completely rectified is the placement of two cabins in a drainage swale. One, the original 'servant's quarters', is in poor condition due to too low a foundation. Railroad ties placed to divert the water have placed a prominent bandaid over the original wound. An additional set of overnight cabins was built near the entry road. When this road was made into a state highway, these cabins lost some of their quality of woodland seclusion.

The day use area is designed to respond to the creek and the two lakes. Three features - the shelter/bathhouse near the bridge, the 'naturalistic' dam, and the boathouse- form noteworthy compositions. Aligned along a steep slope, the shelter/bathhouse stands as an outcropping. A series of stone ledges lead down to the dam, where water pours over the stone basin edge and passes under the semi-circular opening in the bridge. The high walls of the building, its rhythm of railings and stone, the cascading effect of the ledges and water, and the perfect shape of the bridge create a particularly beautiful setting. This shelter is included in the National Park Service's Pack Structures and Facilities, which states:



Mather Lodge, Petit Jean State Park. Note view through center walkway.



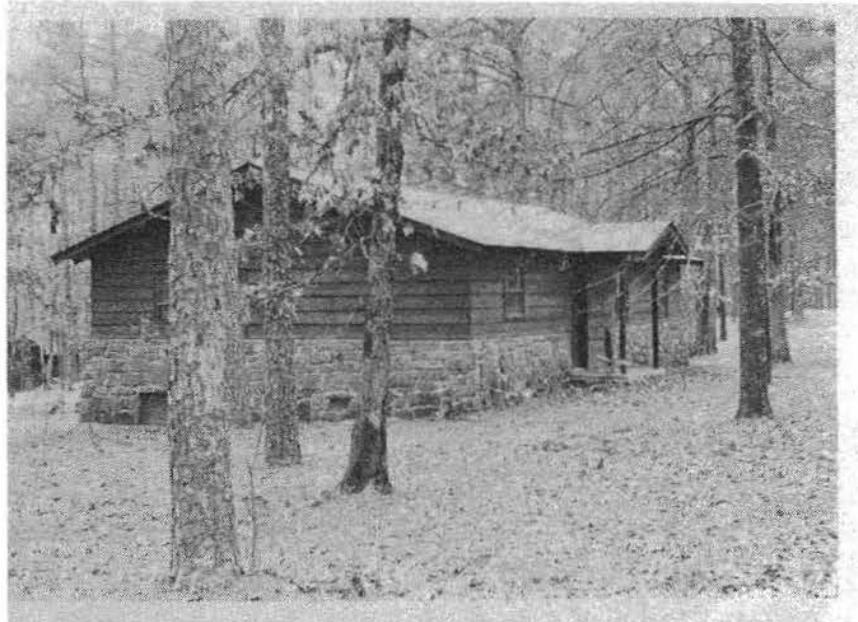
Cabin facing the bluff, Petit Jean.



Duplex housekeeping cabin inserted among the CCC cabins. The design has no relationship to the 'rustic' style of the CCC.



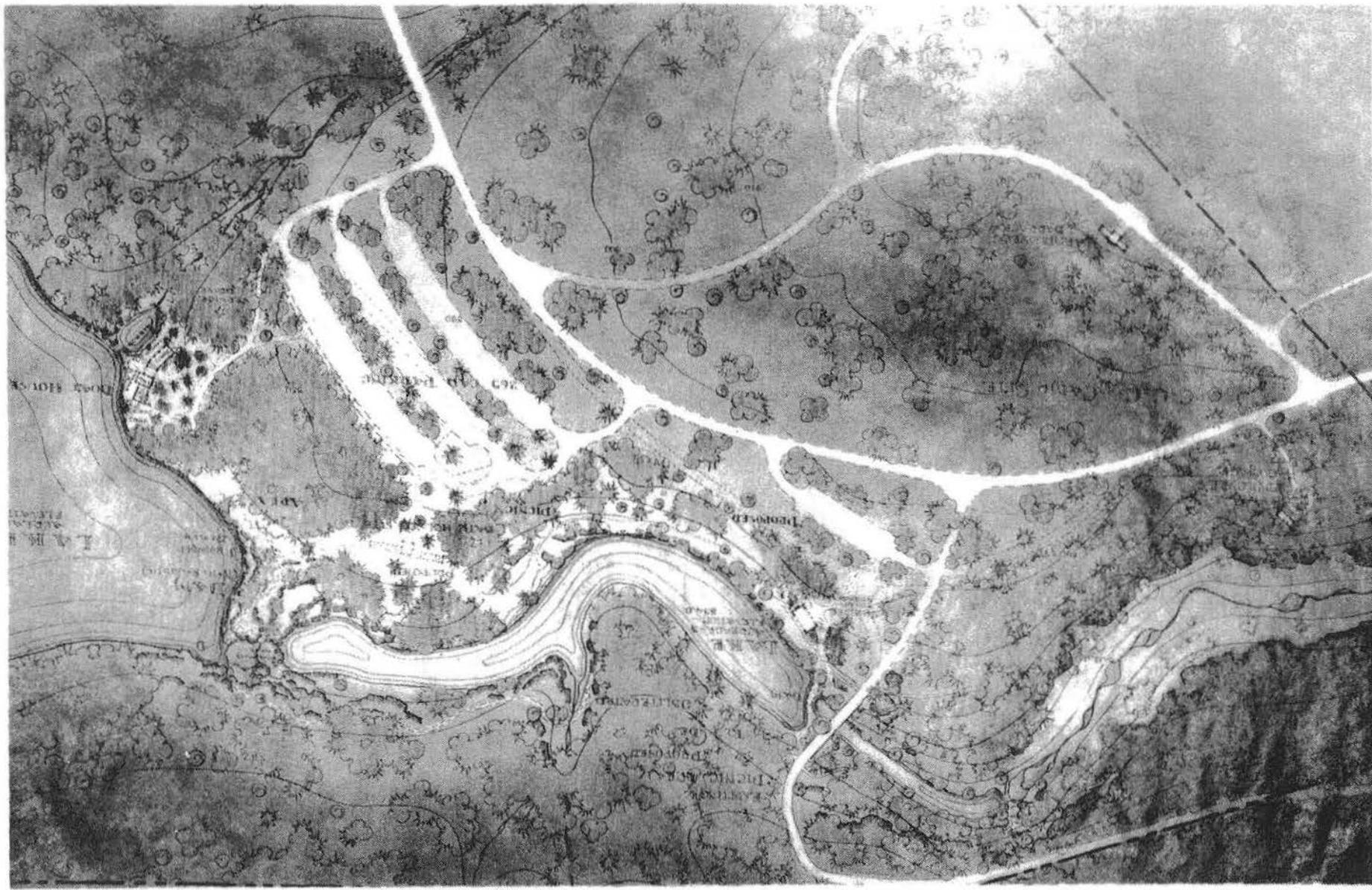
The 'servant's quarters' surrounded by railroad ties to divert water.



A new cabin in a more compatible style, although the roof line is less steep and has none of the complexity of the CCC cabins. Also, the stonework is not layered onto the site.



The 'servant's quarters' showing decay due to location in swale.



Master Plan, Petit Jean, Day Use Area. Leo Deiderich and David C. Hunter,
Landscape Architects. Plan #RJ 9116-B, 1\26\38

"Here are found complete harmony with surroundings and a primitive informality that is an enviable accomplishment. The steep slope above, and bathhouse facilities underneath, directly accessible from grade levels."*42 One major adjustment which has radically changed the recreational activities at both Petit Jean and Devil's Den is the abandonment of lake swimming. The structures built to provide changing space and concessions now simply overlook the water. As they have become less intensively used, they have also become more prone to vandalism.

The boathouse, too, is part of a complete composition which includes the 'harbor', the stone terraces overlooking the lake, and the building itself. The CCC even constructed some boats.

The bridge is a structure of which the technical staff was particularly proud. Part of the pride was that of a father for a son's accomplishments. Sam Davies was a civil engineer, and could easily have designed the bridge himself. Instead, he gave his son, Ladd, a book on railroad construction and told him to figure out the design. The bridge construction is based on a segmental arch, without a piece of steel in it. The key to the design was the thickness of the rock at the apex. Another key was a good stone mason, who "could cut rock just like it was cheese."*43

To construct the bridge, a form was first built, then the rock arch was laid, next the walls were built up on both sides, and last came the gravel and sand road bed. (The sand washed out through a crack during a flood and was replaced with concrete.)

The dam forming the larger lake (Lake Bailey) is the third element which is noteworthy. On the plan, it is labeled "naturalistic". Con-

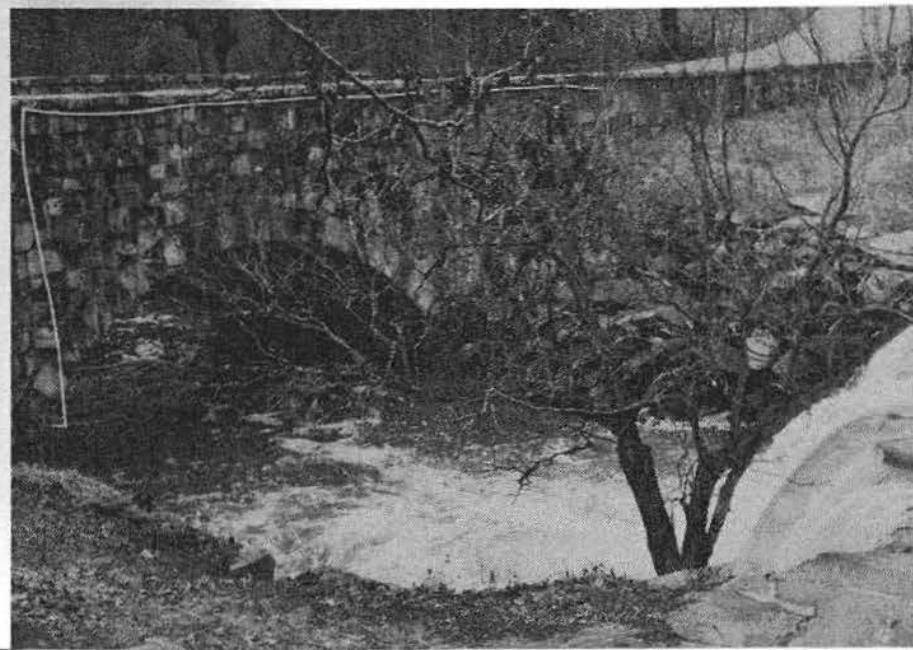
structed of a series of basins with small dams, the effect is of a series of cascades of varying heights ranging from 1 1/2 feet to 3 feet. As the water drops over each dam, the size of the basin enlarges and the waterfall diminishes in height, so that the moving water becomes less and less active. The irregularity of the size of rocks and the uneven distribution of water completes the impression of a natural waterfall. This dam was designed by Deiderich. Later additions to this area, including the second shelter, are much less satisfactory. (As an aside, the second shelter became the bathhouse for whites, while the first shelter near the bridge became the bathhouse for blacks.) In summary, what made the three early elements so arresting is their quality of 'fit'. They are one of the best CCC examples in Arkansas of how the attempt to join man-made features to natural ones can become a subtle, seamless process.



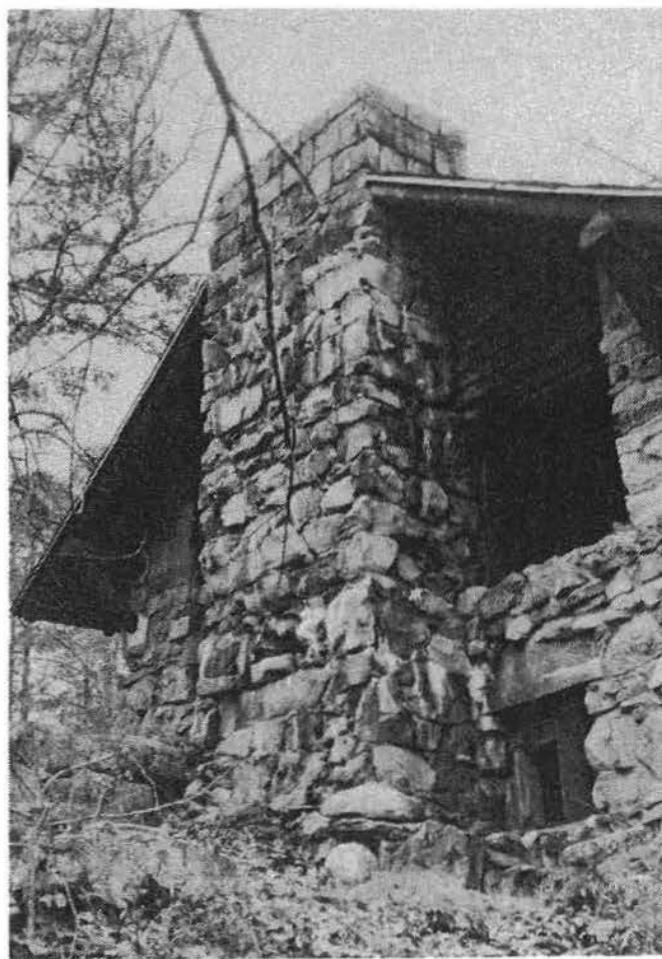
The shelter\bathhouse seen from the upper level, Petit Jean



Rear overlook of the shelter\bathhouse: the lower level was the changing area and the upper level was concession and shelter.



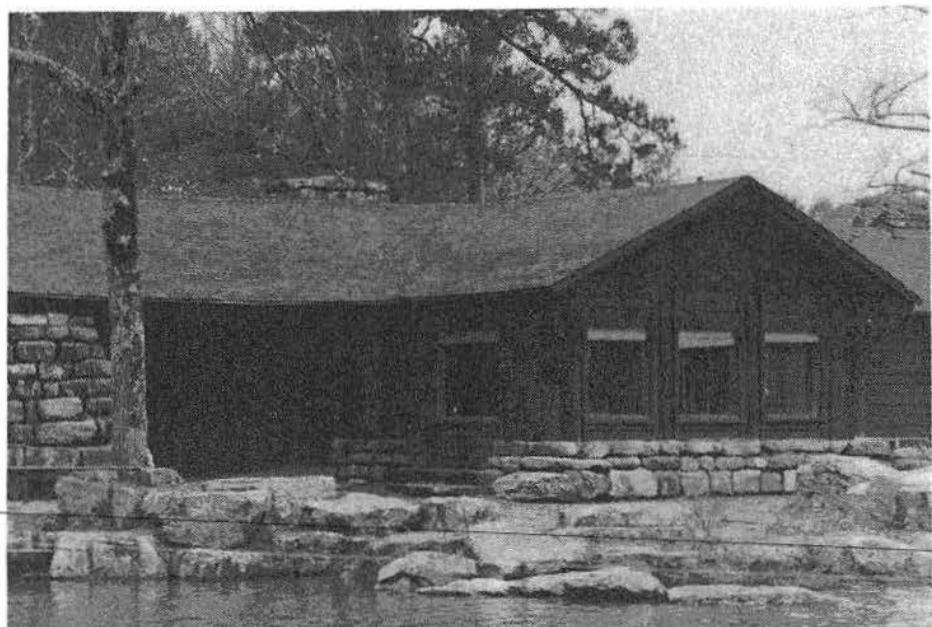
View to dam and arched bridge from shelter.



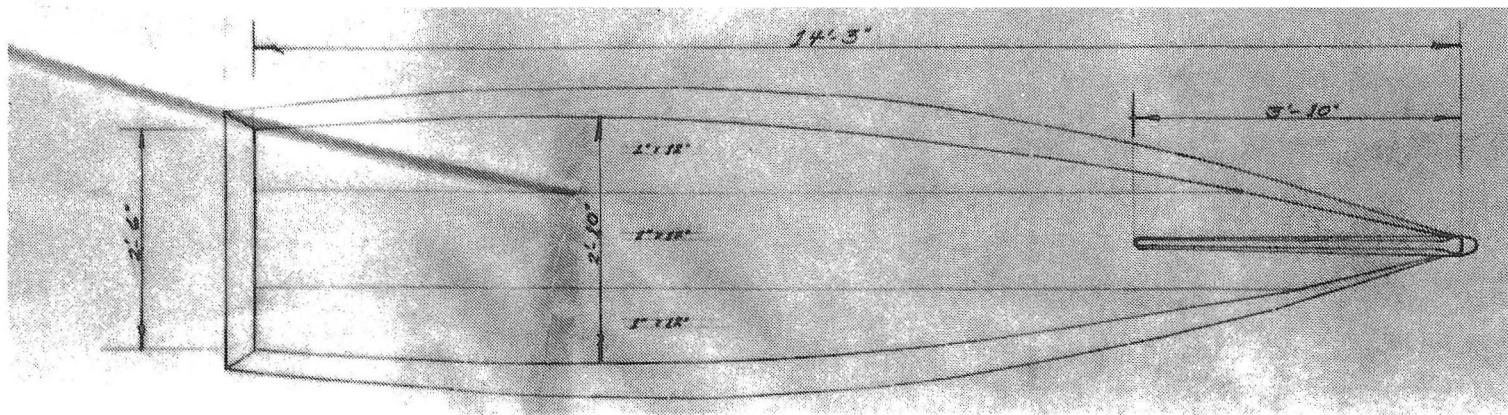
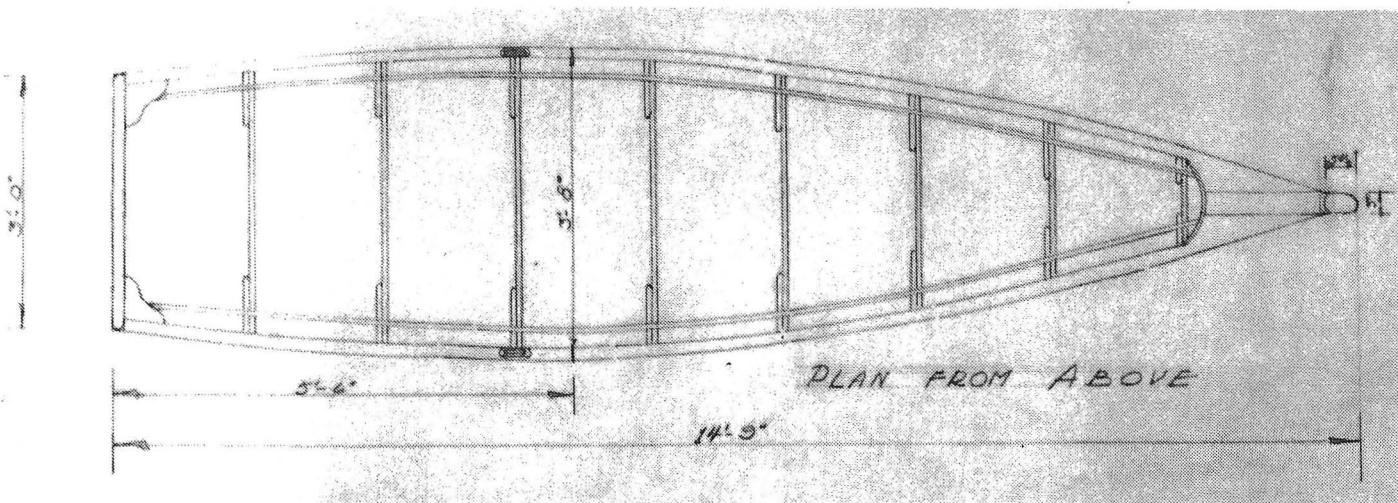
High stone walls of the shelter\bathhouse resting on the slope.



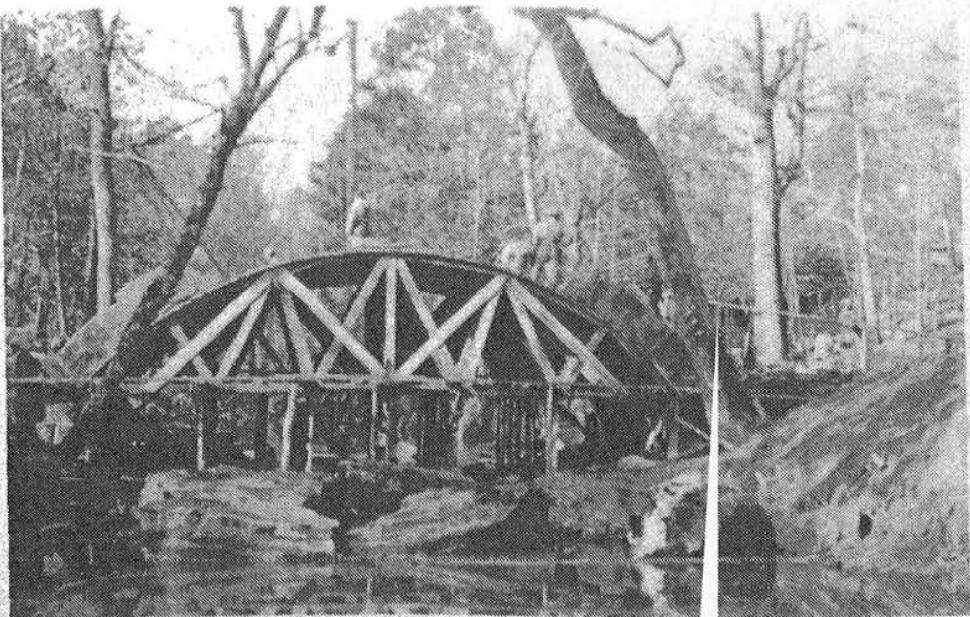
The setting: shelter\bathhouse to left,
rock outcropping in middle, dam at
lower right.



The boathouse, Petit Jean.



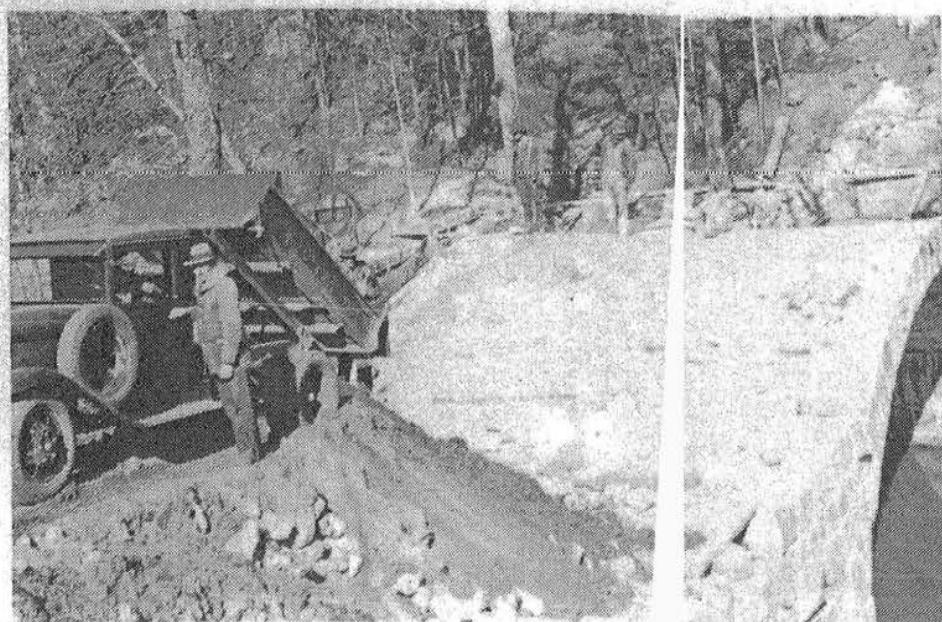
Boat design, Petit Jean. W.B. Smith, Jr. Job# 177, Class #157, 1\27\38.



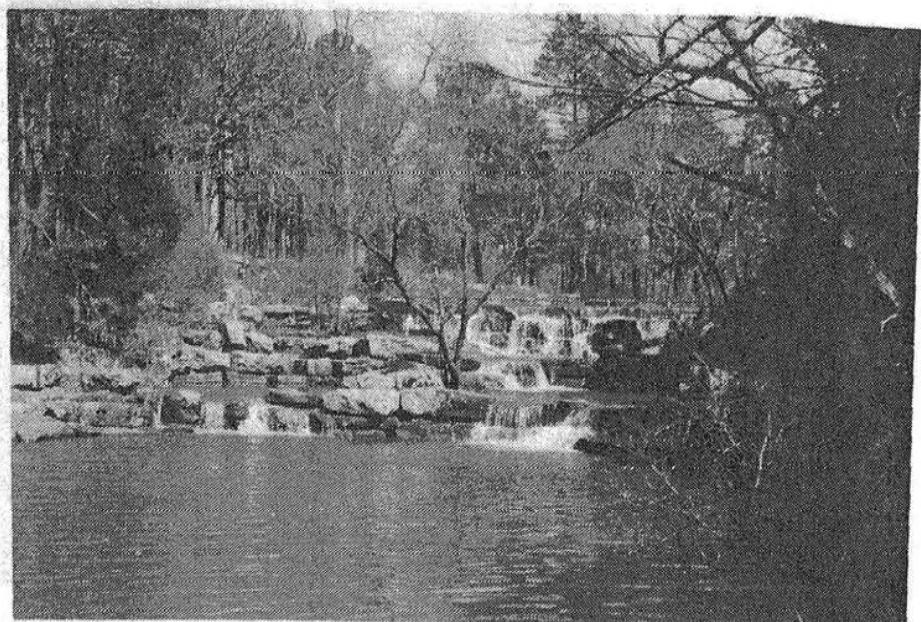
Wooden form, bridge, Petit Jean. Ladd Davies, designer. Files of Park Interpreter, Petit Jean.



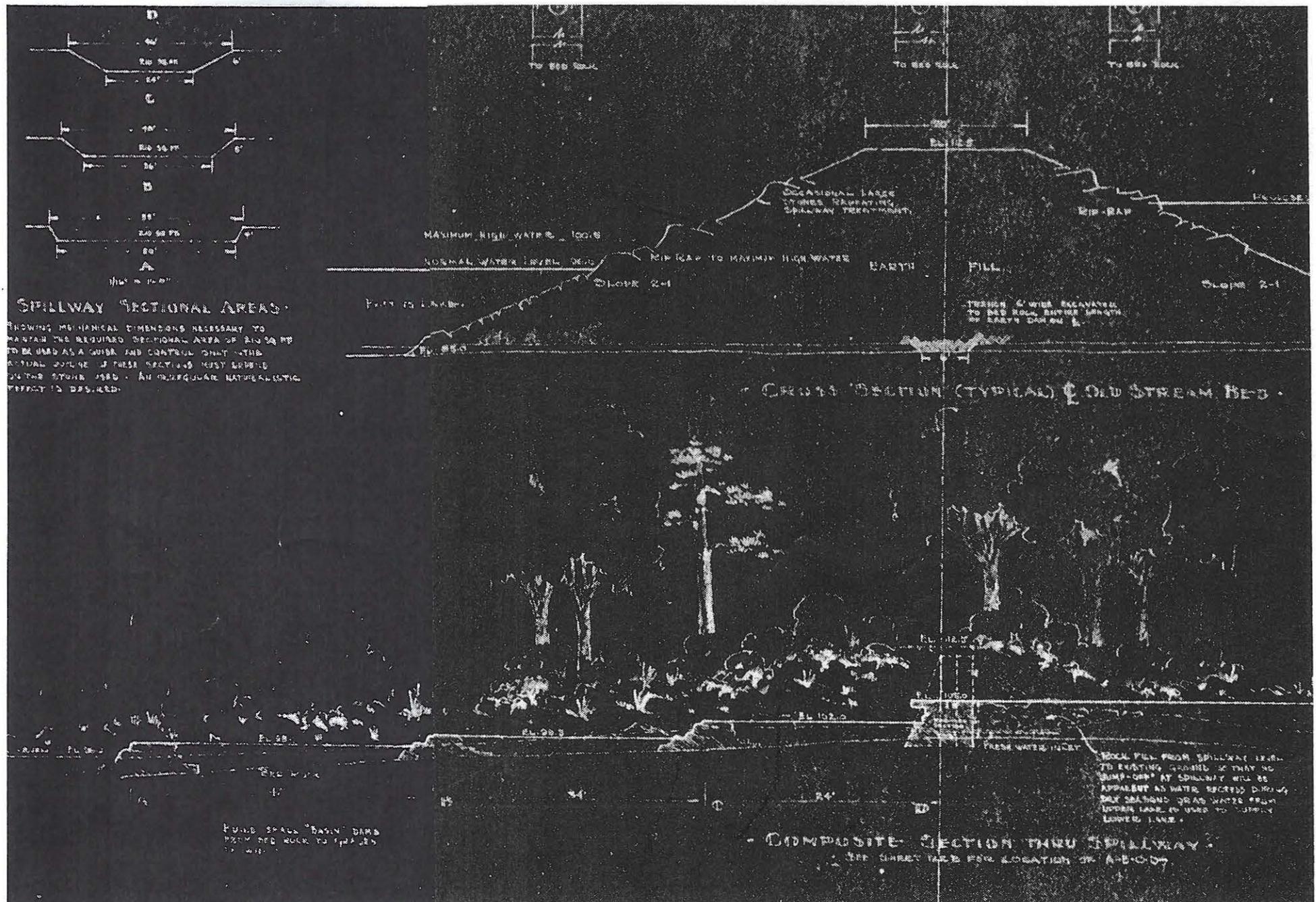
The segmental arch, bridge, Petit Jean. Files of Park Interpreter, Petit Jean.



Filling the roadbed. Bridge, Petit Jean. Files of Park Interpreter, Petit Jean.



The 'naturalistic' dam, Lake Bailey, Petit Jean. Leo Deiderich, Landscape Architect

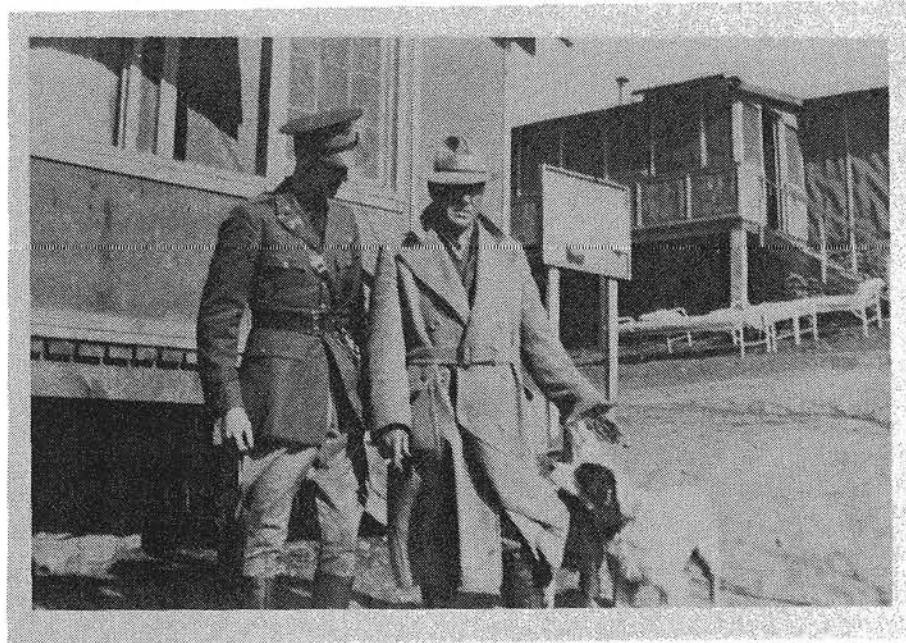


Impounding Dam, Detailed Sections. Drawing by L.J. Diederich. VII ARK 1-1225, 9\19\35.

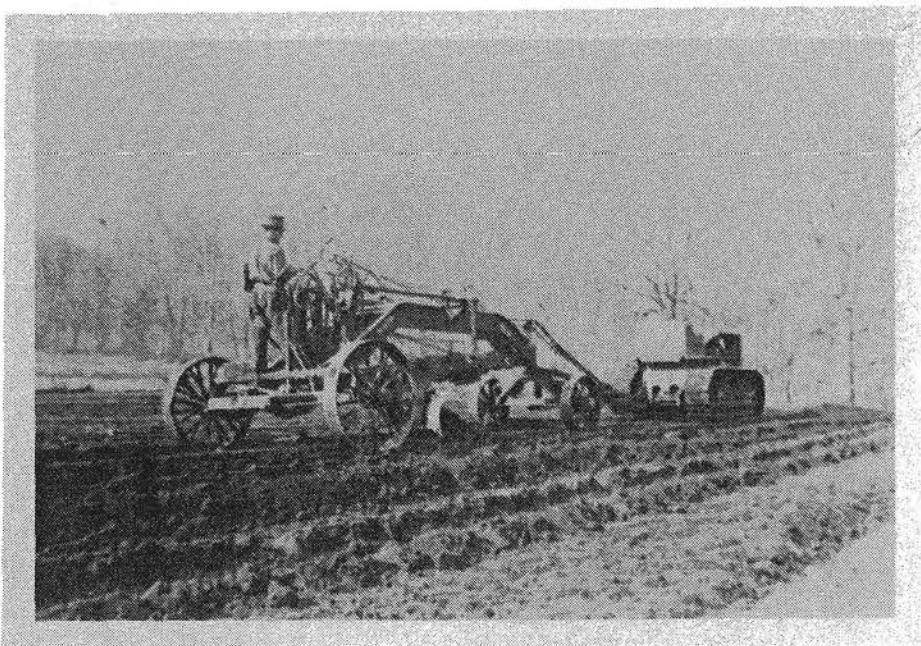
PARK DEVELOPMENT AT DEVIL'S DEN

Devil's Den had been state property since 1916. As at Petit Jean, no development took place until the 1930's with the coming of the CCC. There were eventually two CCC camps at Devil's Den, one at the top of the valley, and one down in the valley itself. The first camp built the road which connected to West Fork. This graded highway required blowing out the stumps and rocks and widening the bed with a grader. Finally, a roadside shelter was completed to overlook Lee's Creek. The camp moved into the valley itself in the spring of 1935, with Bryan Sterns as Project Superintendent. (Bryan Sterns later became State Parks Director in 1945) A second unit was set up at about the same time to construct the road to Winslow and build the cabins. This unit was run by Sam Watkins. Stern's unit had a talented and able landscape architect, Robert Kreilick, along with Ben Shreve, an engineer. Sam Watkins' unit had Paul Young, an architect who designed most of the structures, along with Harold Marsh, landscape architect, and W.C. Smith, engineer.

Paul Young had begun his CCC career working in Little Rock at the office of an architect named Harding. He soon moved to the State Capitol Building, working on drawings for Mather Lodge. He was then sent to Petit Jean to supervise the construction of the lodge. When a second CCC camp was formed at Devil's Den, he became "Architectural Foreman." From interviews with Paul Young and research into many of the original drawings from the projects at Devil's Den, it is clear that Paul Young and Robert Kreilick were the two designers who were most productive and had the most impact on the form of the park elements. Very few of the original drawings are attributed to Harold Marsh.



Lt. Jones, camp doctor, and Sam Watkins, Superintendent of Camp #2 (CCC #2763), Devil's Den. Collection of Paul Young.



The road grader at Devil's Den. Photo in the collection of Paul Young, Jr., Fayetteville.

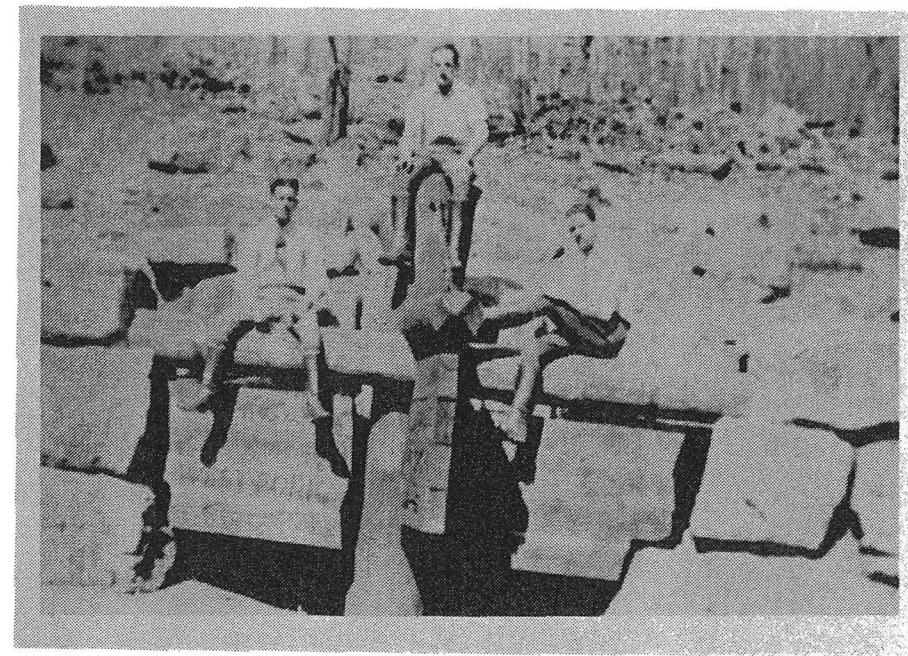
In contrast to Petit Jean, where two distinct areas were developed, Devil's Den was much more confined. Rather than being laid out along a bluff at the top of a mountain, it was nestled in a valley. The descent into the valley culminates in a view of the community building at the edge of a small lake held back by a spectacular dam. From West Fork, the road passed a stone retaining wall, an entry sign, and a stone and timber bridge which has since been replaced. This stone and timber bridge linked the West Fork road to the Winslow road, and permitted entry and exit through the park via two directions. A timber structure set on I beams, which in turn set on masonry piers, it served as an excellent example of CCC park design. Unfortunately only the stone piers remain. The National Park Service's analysis of bridge design serves to emphasize its quality:

"In general, bridges of stone or timber appear more indigenous to our natural parks than spans of steel or concrete. . . In no park structure more than bridges is it of such importance to steer clear of the common errors in masonry. Shapeless stones laid up in the manner of mosaic are abhorrent in the extreme. . . variety in size of stones (are) principles . . . a common fault in bridges is the too abrupt termination of the parapet, railing or wing wall. These should carry beyond the abutments."

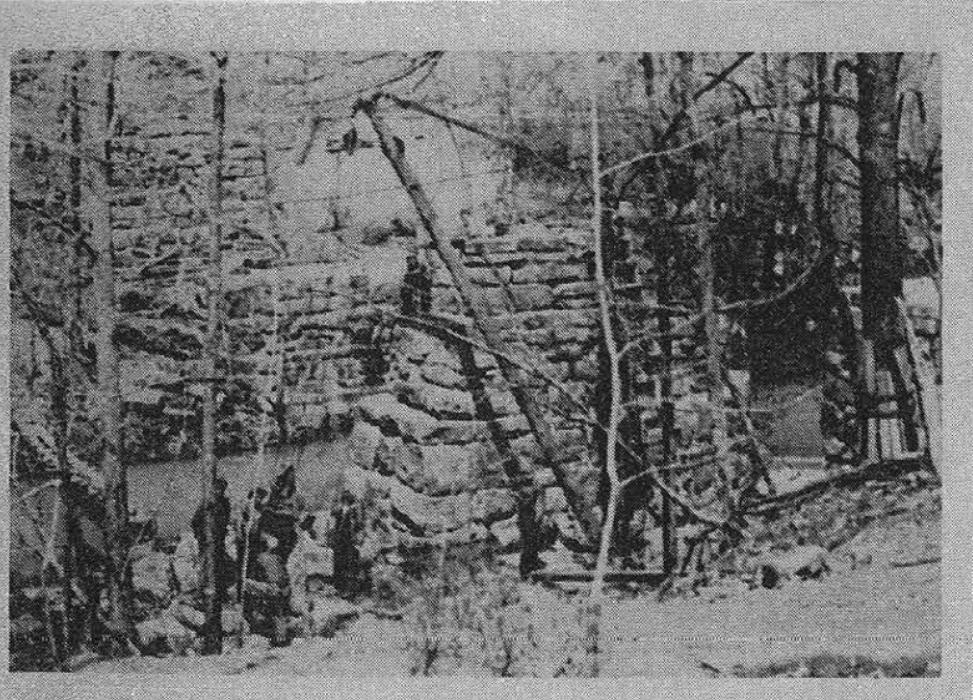
*44

A sketch plan by Robert Kreilick from September, 1935 shows a proposed lodge and other features in the concentrated area of the park with a major loop road connecting the lake's edge, dam, bathhouse (now the community building), 'recreational field' (now a picnic area), cabins and a lodge (never built). This loop road connects to the main

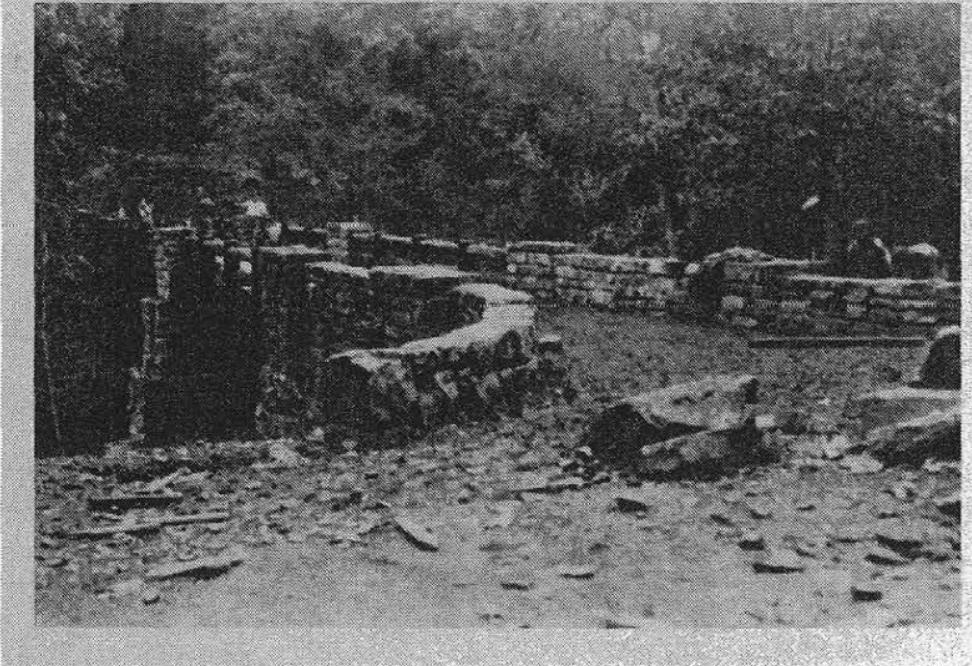
road. A second road leads to more cabins. A glance at a more current map prepared by Mike Swanda, Arkansas State Historic Preservation Office, reveals how confusing this original layout has become through successive changes tment. The connection between the visitor's center (built after the CCC period in 1941) and the community structure is broken up, particularly for discouragement of pedestrian movement. In effect, the park now has two entries closely spaced together.



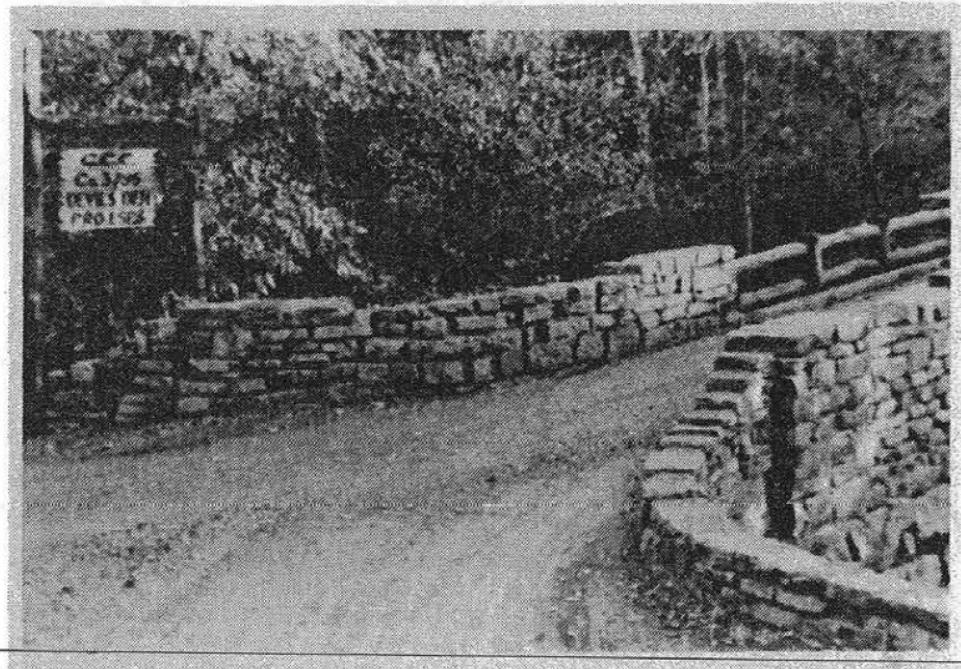
Park entry sign, across from the bridge. Along this retaining wall is a stone marked with a cross. It fell and killed a CCC worker during construction. Photo in files of Tim Scott, Park Naturalist, Devil's Den.



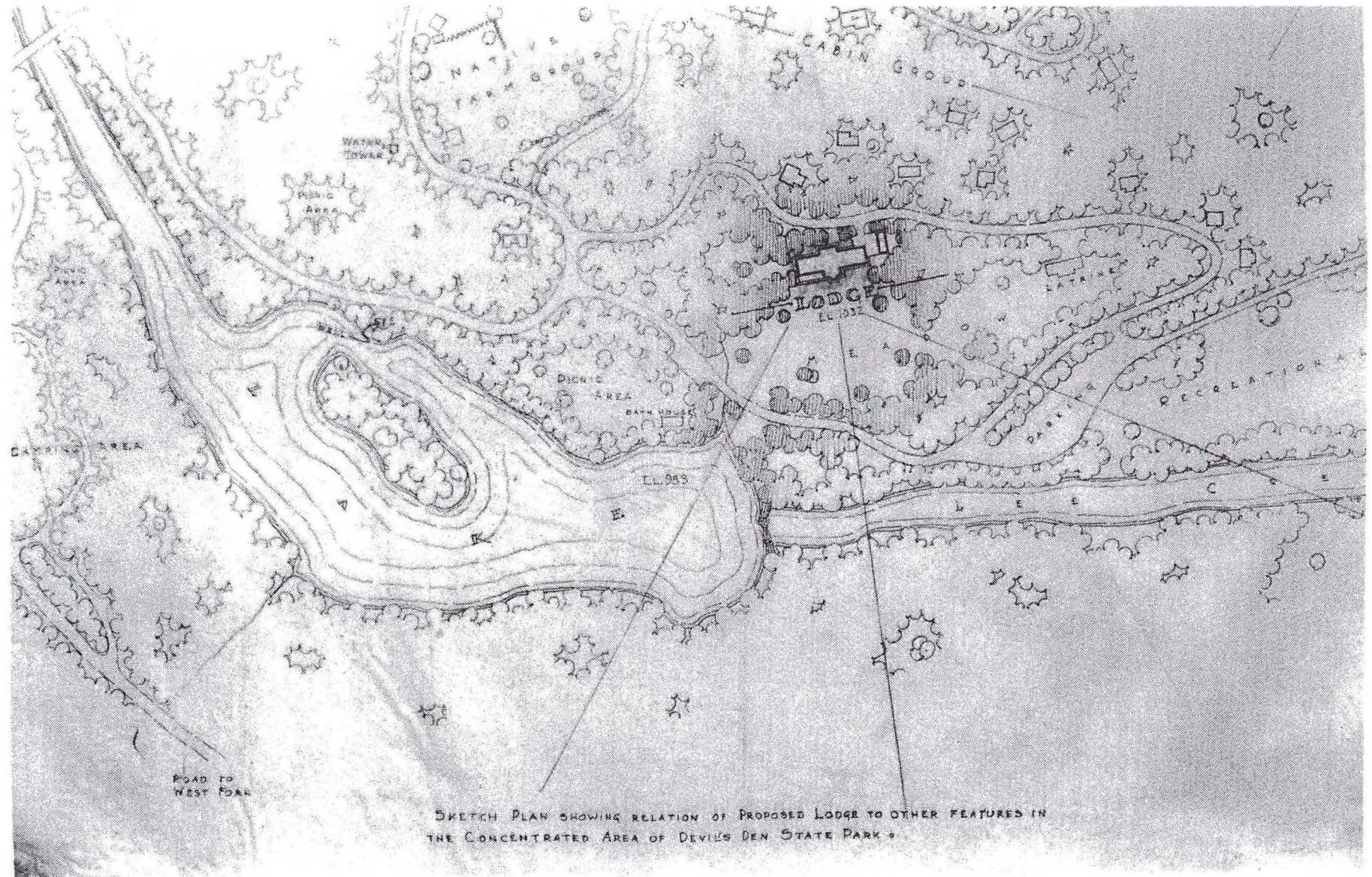
Construction of stone piers, bridge, Devil's Den. Collection of Paul Young.



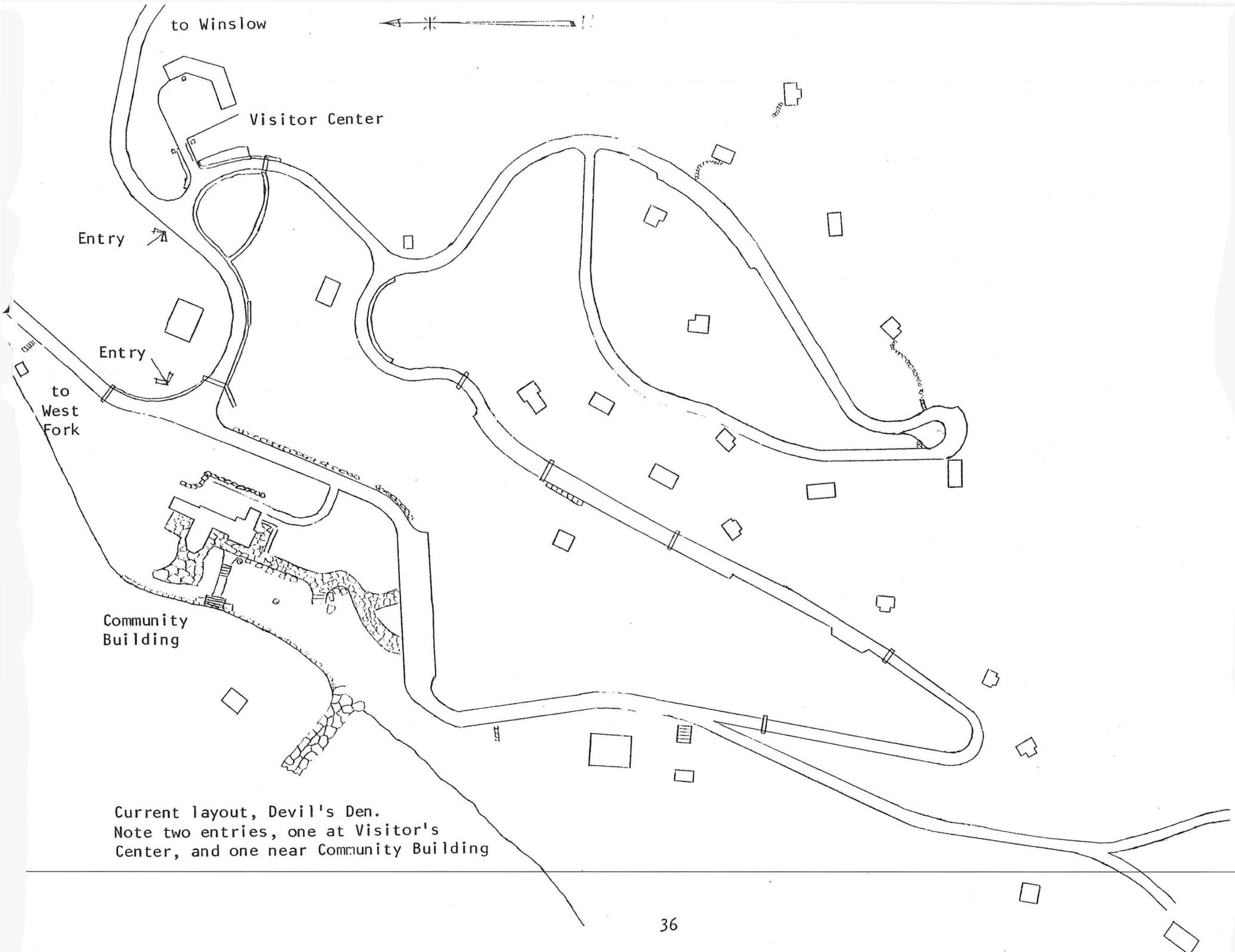
Construction of wing wall of bridge, Devil's Den. Collection of Paul Young.



Completed bridge. Sign reads "CCC Camp 3795, Devil's Den, Project 1, State Park 5". Park Naturalist files, Devil's Den.



Supporting Data, Lodge. Sketch Plan Showing Relation of Proposed Lodge to Other Features in the Concentrated Area of Devil's Den State Park. Robert L. Kreilick, Landscape Foreman. #114-5-8A, 9\13\35.



The major feature of Devil's Den is the development along the lake's edge and the dam. The series of drawings which outline the development of the lake edge and dam reveal the adjustments and changes over the CCC period. This probably occurred because there were a large number of men working at the site, and keeping them busy with a succession of projects was more important than development of a comprehensive plan.

The dam was constructed as a first step. Ben Shreve and Rubin Blood were the engineers, and Robert Kreilick was the landscape architect. The dam was initially designed to run straight across the creek, but apparently excavation disclosed a natural rock ledge which lay in a deep curve in the creek bed. The accommodation to this happy circumstance resulted in a dam of added strength and unusual design quality. The dam was built by constructing two parallel walls out of large slabs of native stone, then filling between them with concrete.

It is implied, in Park Structures and Facilities, that adapting a large dam to a natural site is impossible. But this dam, notwithstanding its substantial size, is tied to the stream bank through an existing rock shelf and with rock work around the lake in a manner that clearly achieves the "impossible".

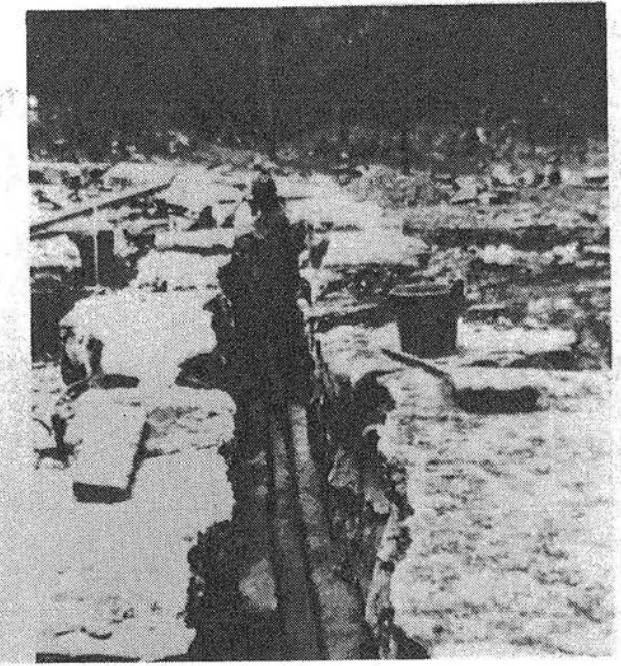
"Before" and "After" drawings show the extensive rock work which allowed public access to the dam, the pond below the dam, and the lake's edge. The falls and pond below the dam was viewed from an overlook which covered a culvert, creating the effect of a spring. At the same time the edge of the lake was filled in with a stone amphitheatre which was to become a "seasonal waterfall". The beach was graded to create a shallow swimming area. The

concept of a set of steps forming an amphitheatre that can become a cascade during wet seasons reveals a sophistication and level of imagination that are uncommon and are not usually ascribed to CCC rustic facilities.

Today the dam serves as a sitting area which inevitably attracts people. However, the overlook has lost its function because trees have been allowed to grow in to block the view. The activity focused on the swimming area has shifted to the more recent swimming pool.



Dam at Devil's Den.



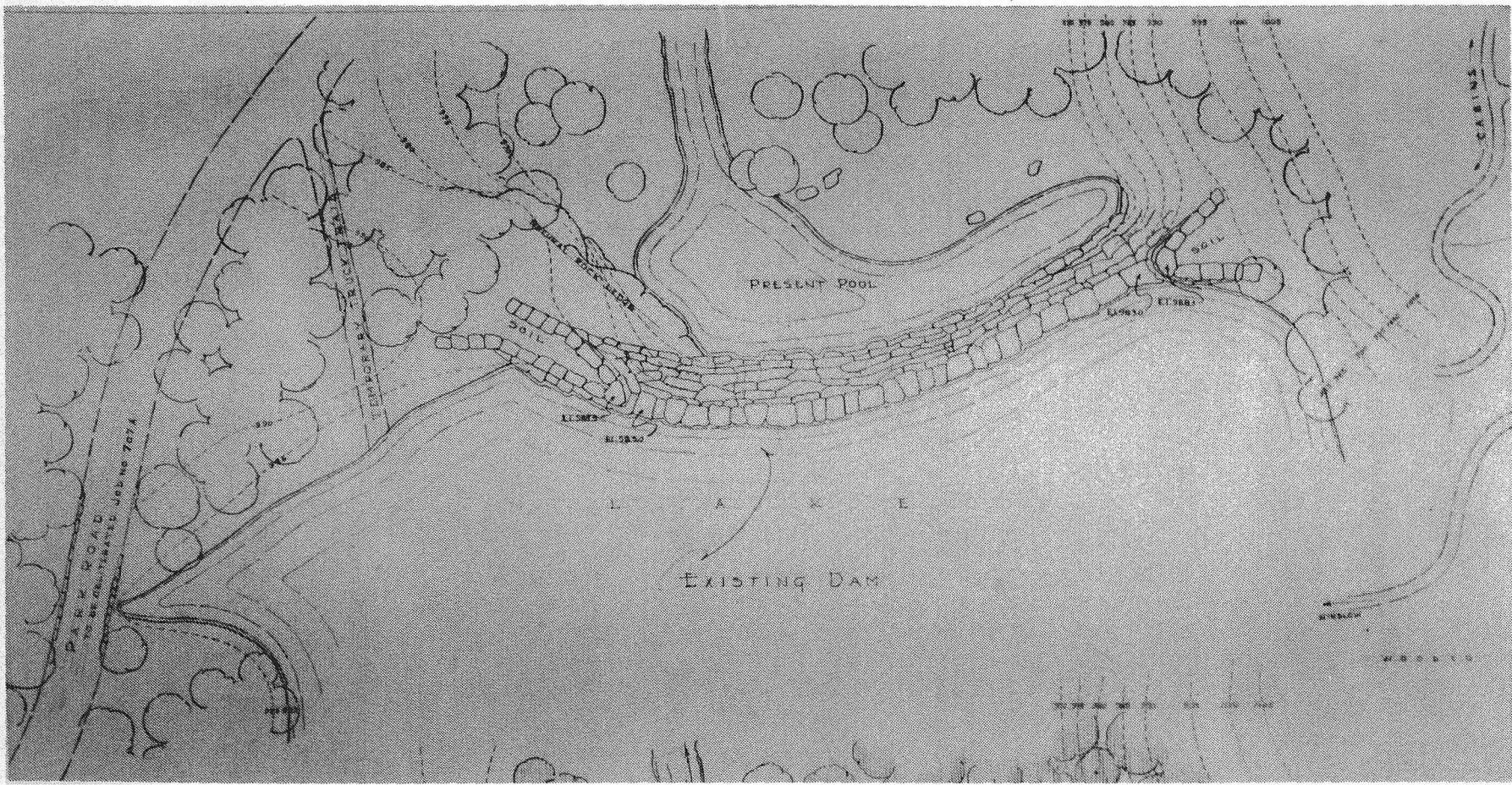
Dam construction: two walls of stone with concrete poured in center. Files of Park Naturalist, Devil's Den.



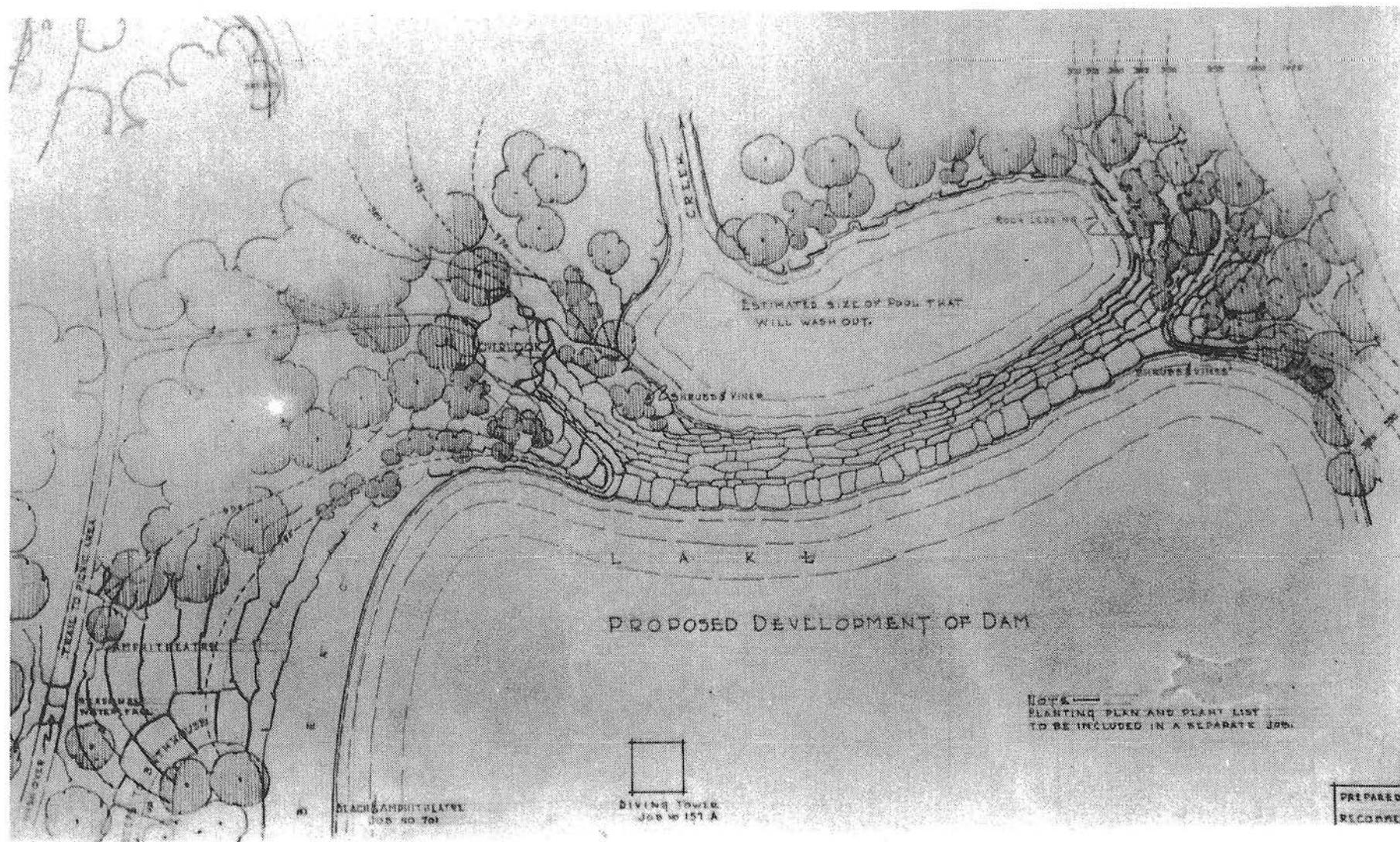
Overlook with culvert, Devil's Den.



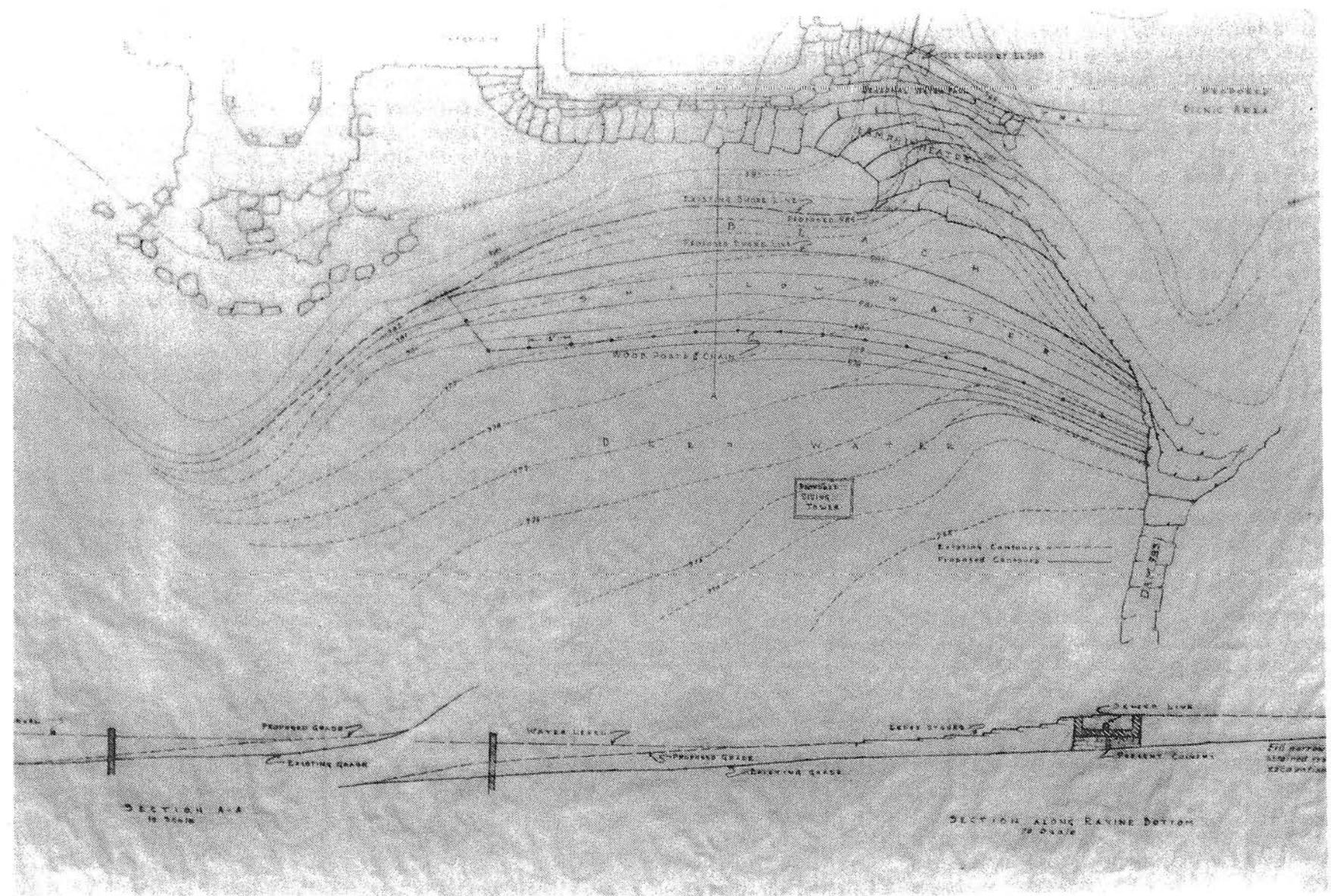
Adaptation of the dam to the natural rock shelf, Devil's Den.



Devil's Den Landscaping, Dam: Existing. Robert Kreitick, Landscape Foreman.
Job#705-B, 12\11\36.



Devil's Den Landscape, Dam: Proposed. Robert Kreilick, Landscape Foreman,
Job#705-B, 12\11\36. Note overlook, amphitheatre, seasonal waterfall.



Beach Improvement, Devil's Den. Robert Kreilick. Job #701, 10\26\36.

After the completion of the dam, the community building was constructed. This structure was designed to provide a dining room, kitchen, bathhouse and pavilion with a flagstone terrace made with enormous slabs of stone. The construction drawings for the structure reveal that it was built in two phases. The bathhouse was built first (1936) and the dining room, kitchen and pavilion were an addition. Paul Young designed the addition, but the signature on the bathhouse plans is indecipherable.

Comparing this structure to Mather Lodge at Petit Jean reveals a major difference in construction methods. Mather Lodge was fabricated with old fashioned stone, frame and log construction using pioneer methods. This method required large dimension timbers which seem overdesigned structurally for the load they carry. Actually, these timbers were sized by necessity for the reduction in section by the cuts for the joints. The difficult part of frame or log construction is in the joints, particularly in roof trusses and wall corners. For example, at Mather Lodge the Kingpost is hung from the peak to help support the tie beam across the lounge. The joint was carefully designed to resist the stresses using a through mortise and extended tenon with a wedge.

In the dining room there is another example of frame construction of a different sort. Here the roof is held up by a frame and series of rafters and ties while the walls are independently made of logs. Structurally, the walls support only a modest portion of the roof load.

Because the wood members of this kind of log construction are so large, they are very difficult to replace. At Mather Lodge, current restoration work reveals some of the problems. The roof supports for the open

walkway between the two parts of the building have rotted out. With some luck and much effort new logs of the same diameter (2 feet plus) have been found and treated with preservative. But additional problems are caused by the large weight placed on the columns and the cumulative weight of the structure. Supporting the roof during timber replacement and hoisting the heavy replacement logs to the right height is very trying particularly without the large number of men that were available in the 1930's. Notching and cutting the logs to fit takes a level of skill beyond the experience of the ordinary carpenter. Replacing rotten logs at the foot of walls which may weigh several tons requires piece-meal replacement so the upper wall can be shored up during the construction.

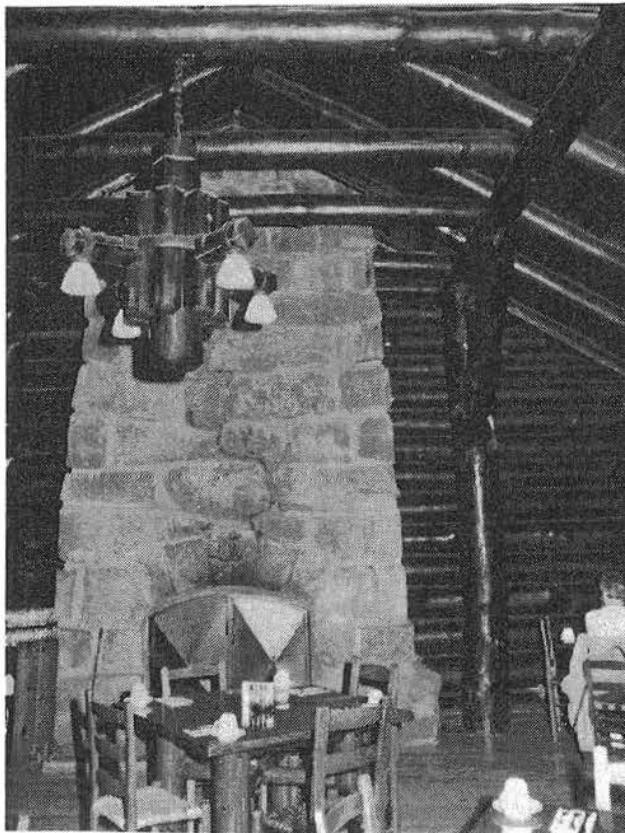
The community building at Devil's Den, on the other hand, was built with more modern techniques, although the rustic appearance is similar.

The concrete foundation has stone applied to the exterior. The wall construction is modern framing with studs, covered with wood sawn and planed at a local sawmill.

The debate between the advocates of modern methods of construction and historic ones was quite heated within the National Park Service. The committee of regional directors of the CCC work in state parks who put together the publication Park Structures and Facilities were unable to come to agreement on this issue. One faction thought that park structures should not appropriate the look of primitive structures unless they were constructed in the same fashion and with the same materials as the prototypes.

A second faction argued that the old methods of construction were wasteful of materials and used up forests which the park movement

in general was attempting to protect. A middle of the road point of view was that only the most important structures should use the pioneer construction in order to make the public aware of disappearing frontier construction methods, but smaller cabin structures should use more economical methods. Interesting enough, the only remaining log structures in the three parks under study are Mather Lodge and a small cabin at Mt. Nebo. In the discussion about cabins, it will be seen that both methods - modern and log - were used in the parks. The log cabins, however, have all been rebuilt in the more modern fashion.



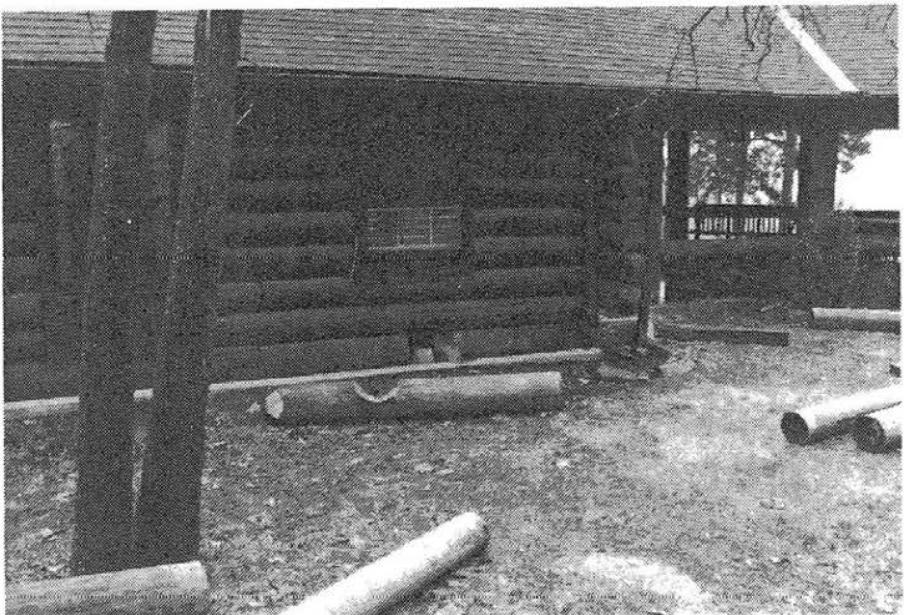
Original dining room, Mather Lodge. Post and beam construction support roof.



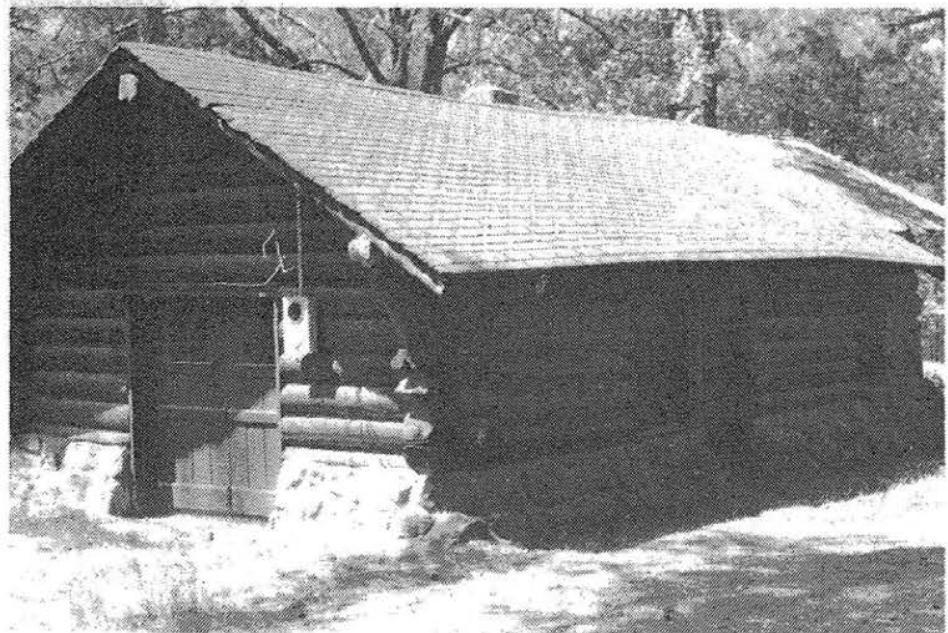
The Kingpost joint which supports the tie beam in Mather Lodge.



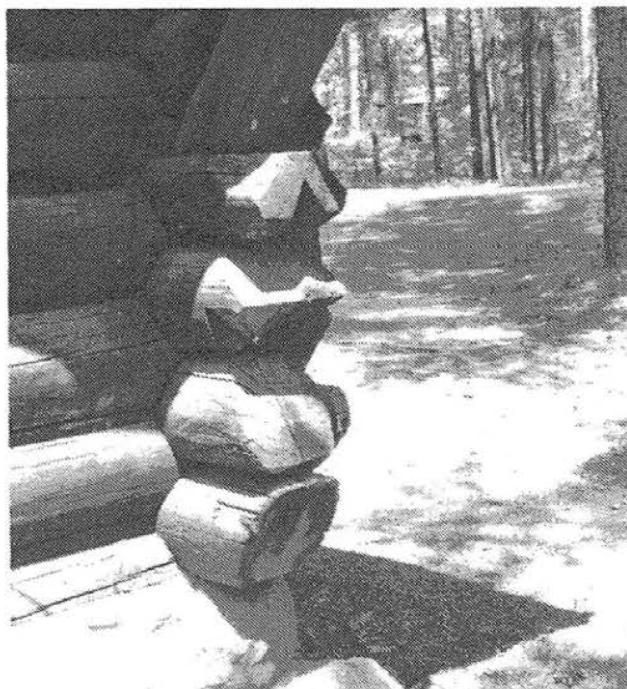
Replacement columns in outside passageway, Mather Lodge.



Replacement logs at foot of walls, Mather Lodge.



Small cabin at Mt. Nebo: the only remaining log structure with the exception of Mather Lodge. Note poor condition.



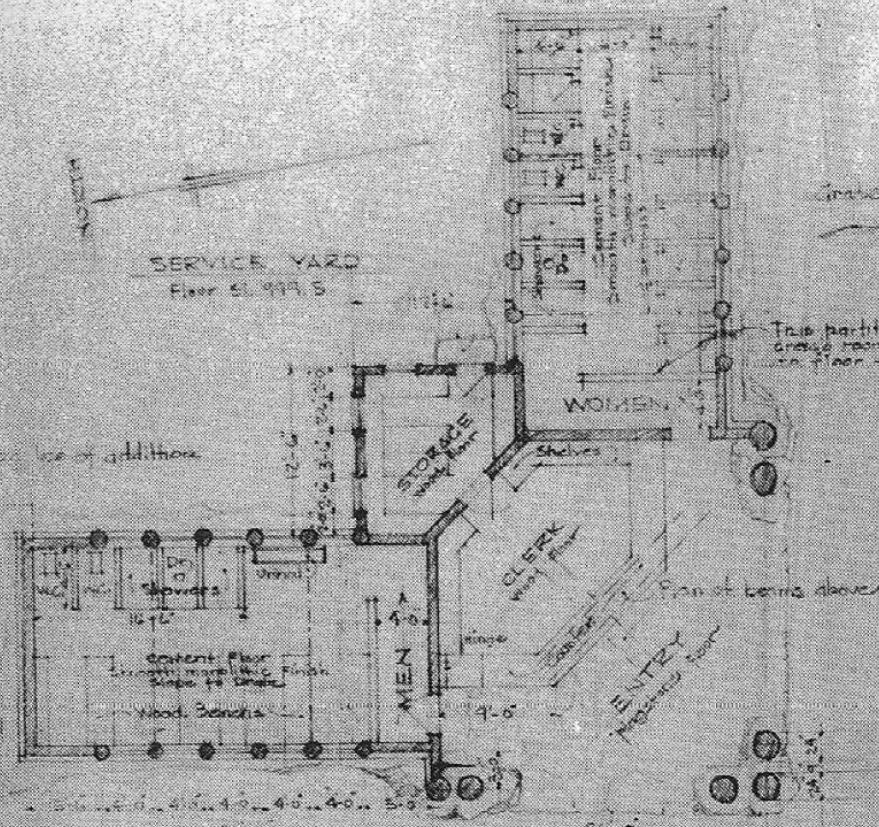
Decorative log ends at Mt. Nebo cabin.

THROUGH ENTRY

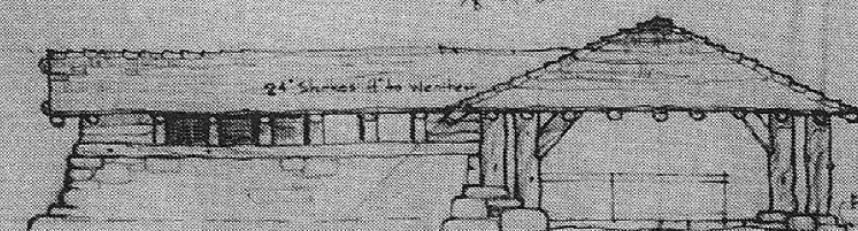
3/4" = 1'-0"

SERVICE YARD
Floor Sl. 999.5

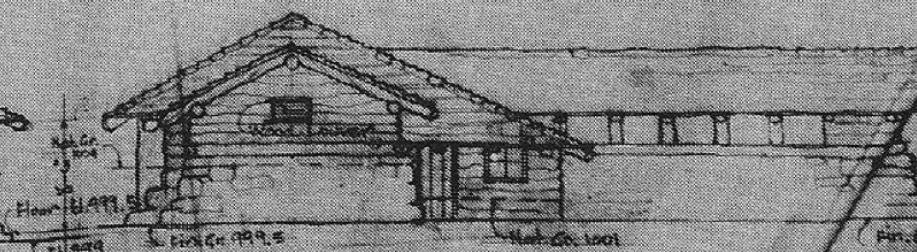
Building No. of additions



PLAN
3/4" = 1'-0"



WEST ELEVATION
3/4" = 1'-0"



EAST ELEVATION
3/4" = 1'-0"

10 Log Mill

10' boards

Masonry laid in
mortar with deep
recessed joints

2x4 studs 24" o.c.
2x4 boxes

2x12 soffit

Self-anchor Bolts 4-6" o.c. - 1

Smooth sur-

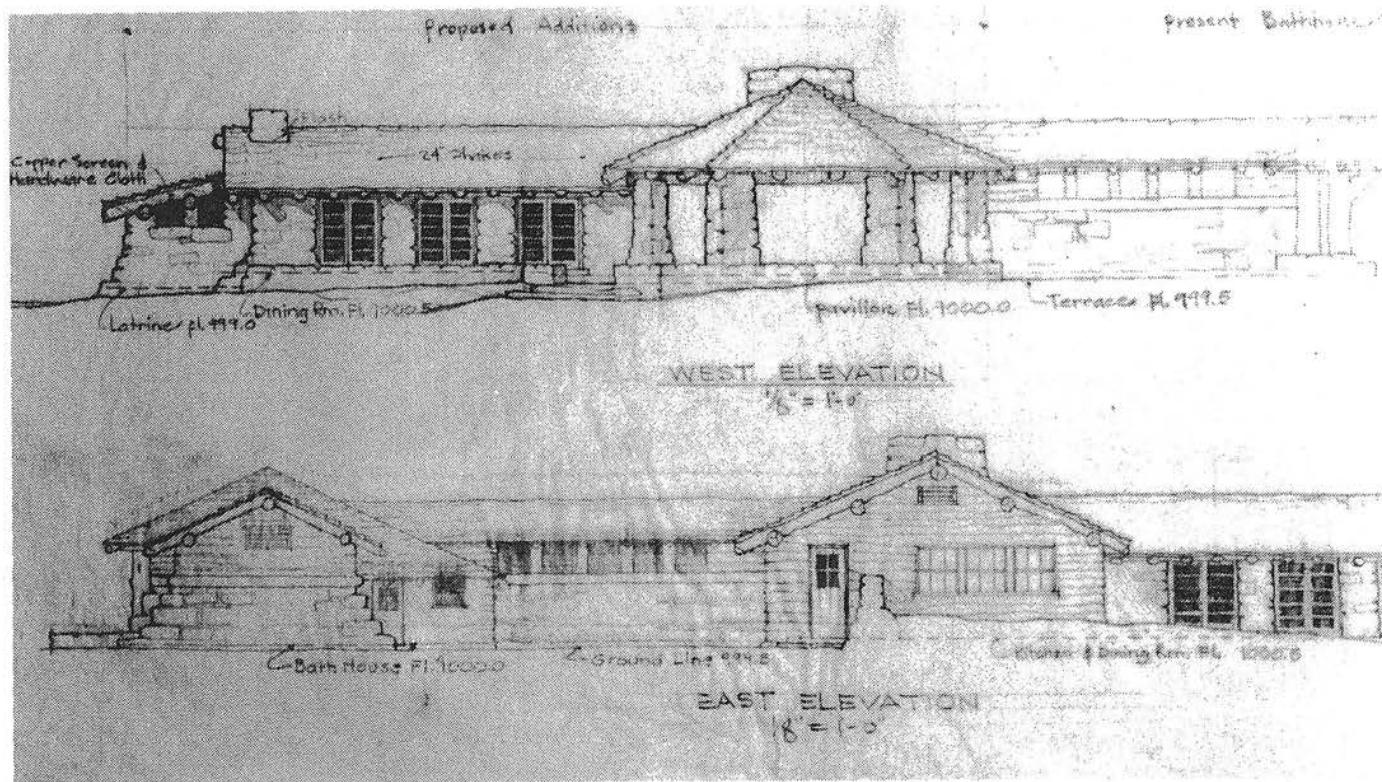
mesh 16" x 6' x 10'

Fill well puddled & tamped
Masonry footing 2'-0" below
Natural grade

TYPICAL SECTION THROUGH
DRESSING ROOMS

3/4" = 1'-0"

P.S. DETAIL JOINT IN
SHIPLAP - DRESSING
ROOM PARTITIONS



Devil's Den Addition to Bathhouse. Paul Young, Architect.

CABINS

One of the most well-loved features of the CCC parks are the cabins. Their woodland location, their views to the mountains or stream valley, their rustic beauty composed of stone and wood, and their privacy provide an experience hardly found anywhere else. This explains why they are often booked as much as a year in advance.

Cabin construction in the CCC period was looked upon with decidedly mixed feelings. The National Park Service perceived the cabin as a private domain in a public place. Ambivalence is reflected in statements such as

"the cabin becomes, in effect private property, serving an infinitesimal portion of the park using public." *45

Construction costs and rental costs were considered too high. Cabins raised water, sewer, and road building costs. To solve these problems, the NPS recommended cheaper accommodations with compact sleeping areas and an open or screened porch. Costs would also then be lowered through group toilet and bathing facilities as well as provision of limited kitchen facilities.

The ambivalence of the NPS toward the use of cabins can be traced to its philosophical base as a public agent which, first, was interested in preservation of natural sites; second, wished to expose all strata of society to the beauty and beneficial effects of these sites; and third, had a strong belief in ideals of democracy and equality.

The following words serve as a reflection of these ideals:

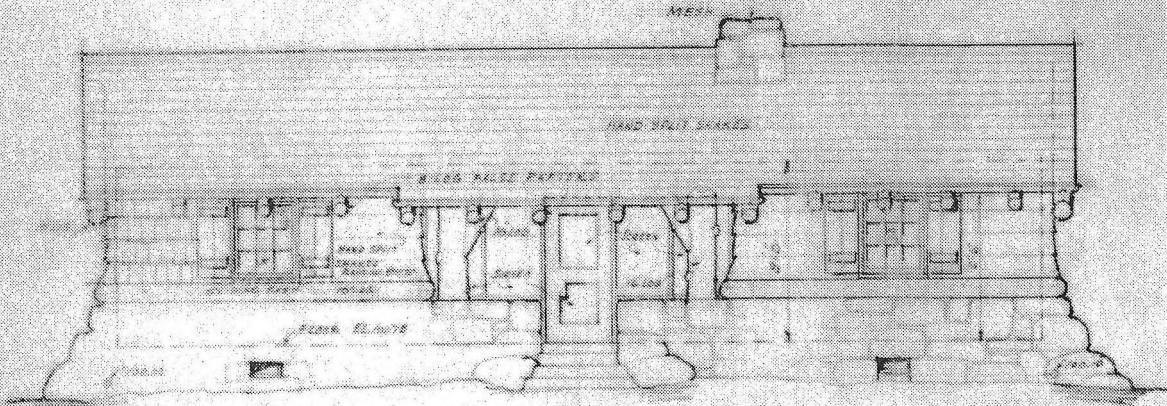
"It might be pointed out as an abuse of democratic principles if the benefits of park areas are withdrawn from availability to the many to the selfish enjoyment of the few." *46

At Devil's Den, the original cabin plans reflect the NPS goal of the most accommodations for the least expense.

In one cabin, there are only single bedrooms surrounding a screened living space with a fireplace. A second cabin has more luxurious accommodations, including a fireplace in each room as well as bathrooms, showers, and hot water.

Beyond the function and cost issue, it is the visual and structural quality of these cabins that have given so many users so much satisfaction through the years. The stone work that spreads out into the landscape, the variation in form, and porches facing the view, make them as much a part of the environment as anything built as a habitation could possibly be. A newspaper account of the time describes them as:

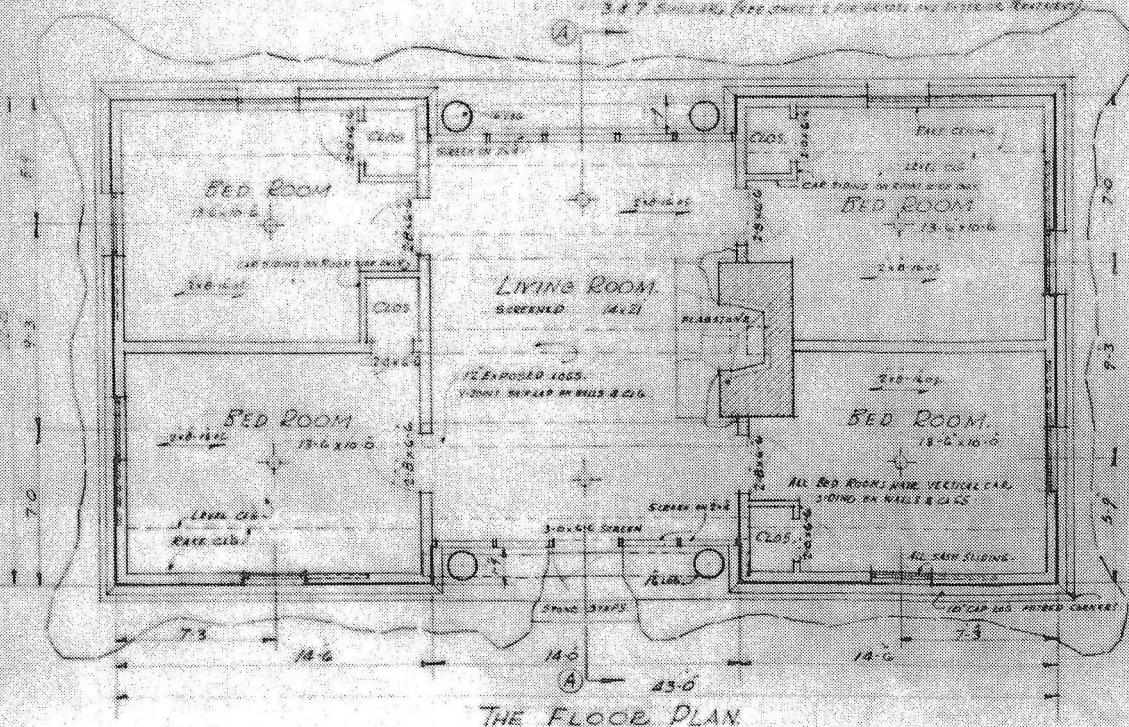
"handsome structures of stone and logs of such cunningly designed architecture that they seem to grow there" and adds that they were built at the cost of \$300. each. *47



FRONT ELEVATION (not to scale)

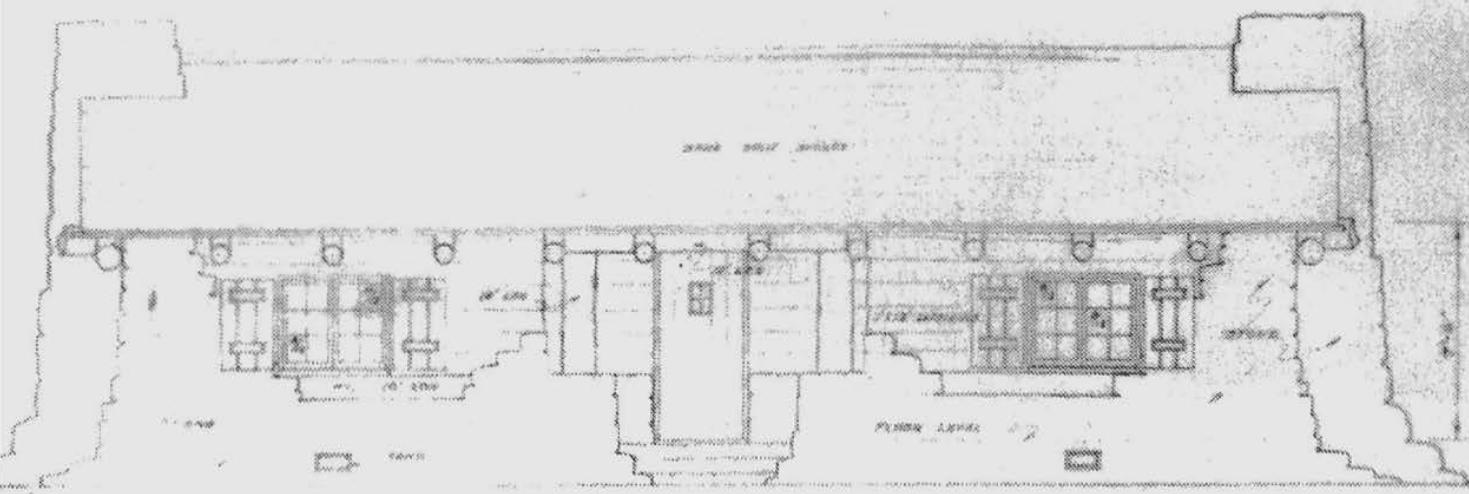
卷之三

³⁴⁷ *Constitutive factors of women in African families*

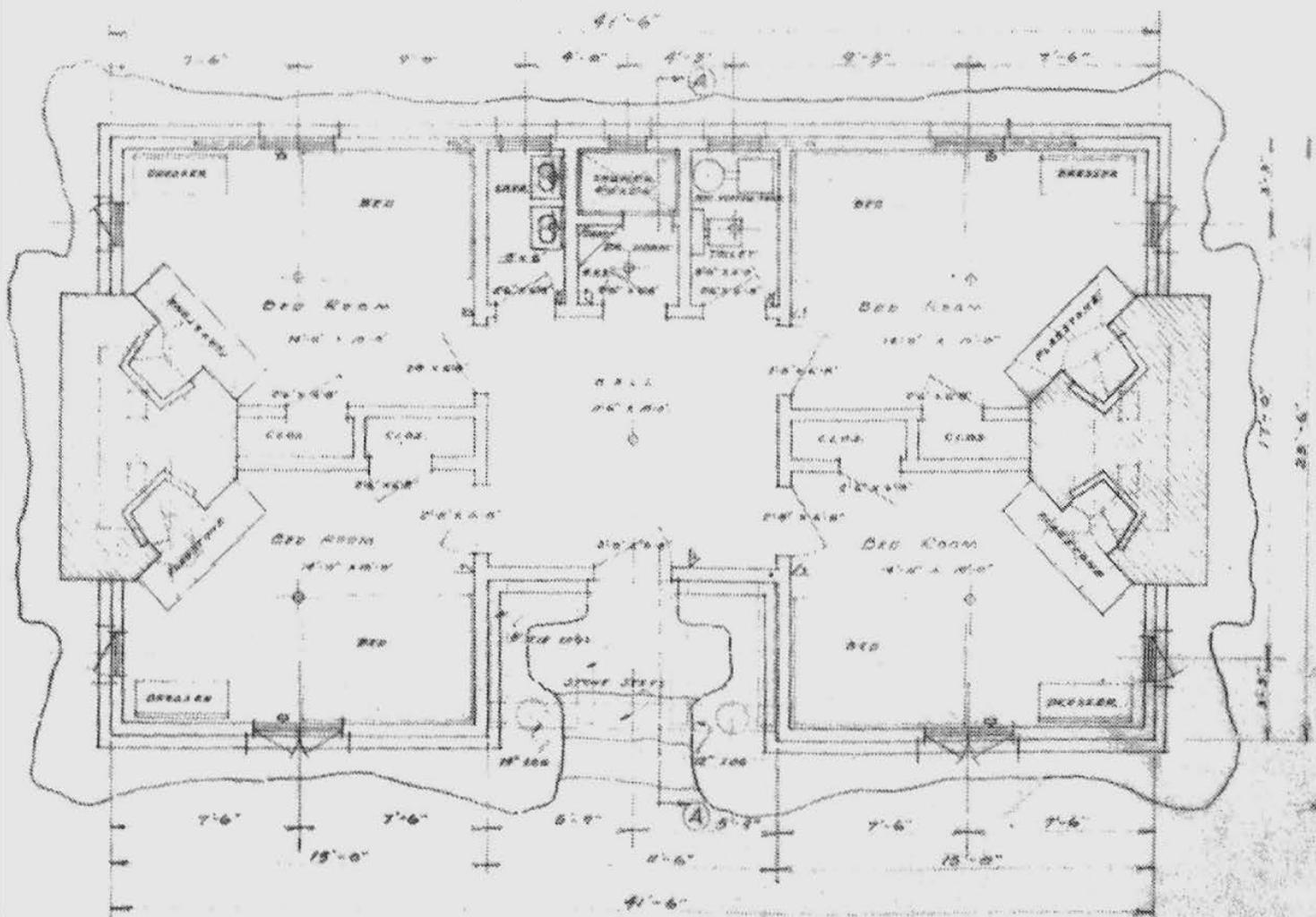


Devil's Den Overnight Cabin. Paul Young, Jr., Architectural Foreman.
4-24\35.

NOTE : ALL LOGS TO BE SELECTED FOR
SUBSTITUTION IN THE SIZES OF PINE
WILL BE ENTERTAINED IN TRADE OR SEE
SEE ARCHITECTURAL FOREMAN.



FRONT ELEVATION



FLOOR PLAN

THIS IS TO CERTIFY THAT THIS BUILDING IS
SUBMITTED AND THE ESTIMATE MADE

Overnight Cabin, Devil's Den. Paul Young, Jr., Architectural Foreman.
4\24\35.

In each park, the construction of cabins differed, following the distinction of old and new techniques raised in the comparison between Mather Lodge and the Community Building at Devil's Den. Log cabins were the rule at Mt. Nebo. A series of photographs, donated by John Hunter, nephew of David C Hunter, landscape architect, record their construction. Clearing and digging foundations were done by hand. Levels were laid with string. After foundations were built up to the window sills, floor framing was laid. Logs for the walls were stripped of bark and notched, then laid directly on top of the stone work, which had been carefully prepared with small flat stones laid in concrete. The roof framing was accomplished, in this case, with standard lumber rather than with log rafters. Hand made cypress shingles were laid on.

Ladd Davies described the difficulty in obtaining the tool for hand splitting shake shingles. He had the word "froe" or "frow" on his tool list, but did not know what it was. A search in the dictionary defined it as "a Dutch wife". Finally, the resident blacksmith was put to work making the tool, which was long out of use for ordinary house-building, and was therefore unavailable commercially.

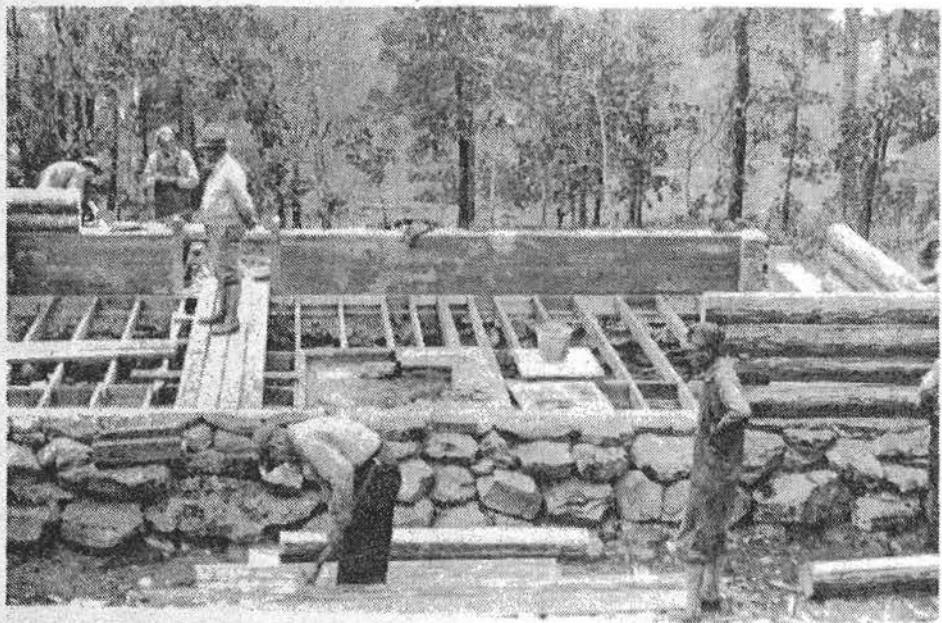
Simple as the construction methods for these cabins were, there is architectural sophistication in the variety of outline and roof line as well as the stone work which was laid more and more loosely as it reached the ground, with deeply raked mortar joints. Unfortunately, all the log walls on these cabins have been replaced.



Clearing a cabin site. Park Interpreter files, Petit Jean.



Laying out the foundation levels with string. Park Interpreter files, Petit Jean.



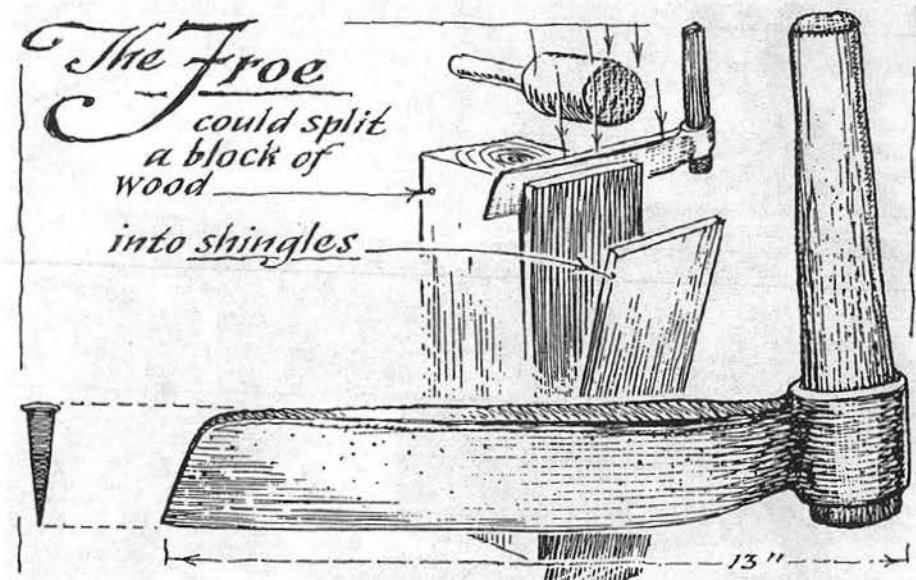
Framing floor, constructing log walls. Note man stripping logs in foreground. Park Interpreter files, Petit Jean.



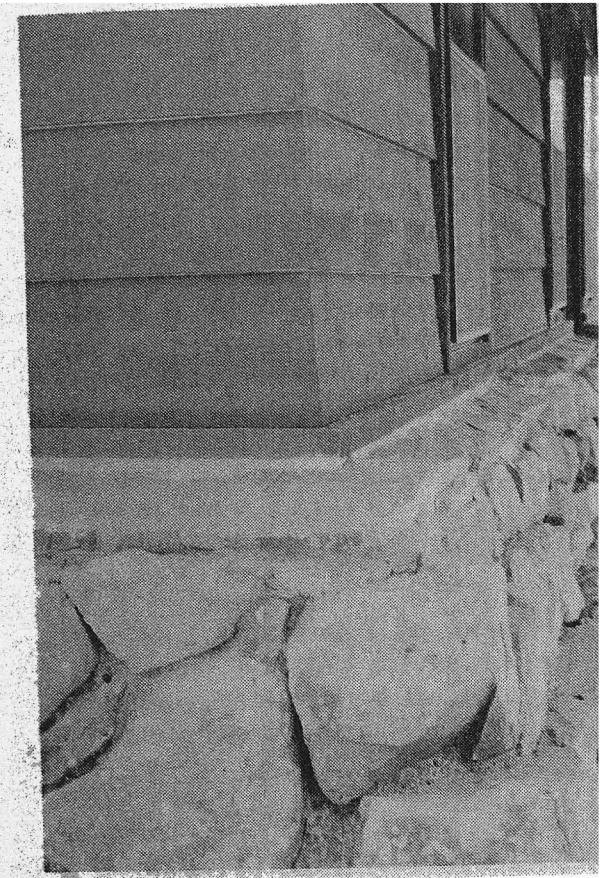
Constructing log walls. Note notched logs in left foreground. Park Interpreter files, Petit Jean.



Installing shingles. Park Interpreter files, Petit Jean.



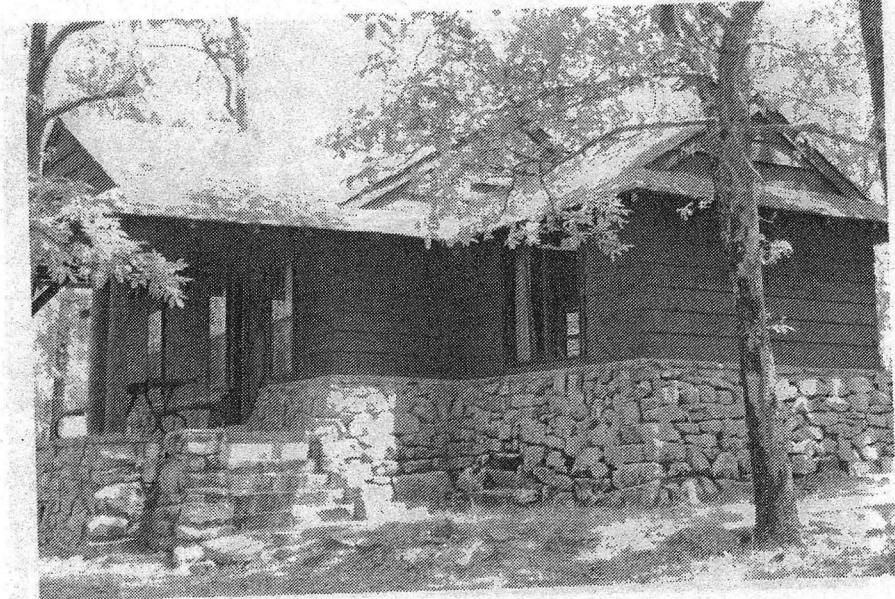
Froe, from Eric Sloane, A Museum of Early American Tools.



Current photo of flat stones laid at top of stone wall to receive logs.
Logs have been replaced.



Completed cabin, Mt. Nebo, 1930's. Park Interpreter files, Petit Jean.



Same cabin, Mt. Nebo, Spring 1989.

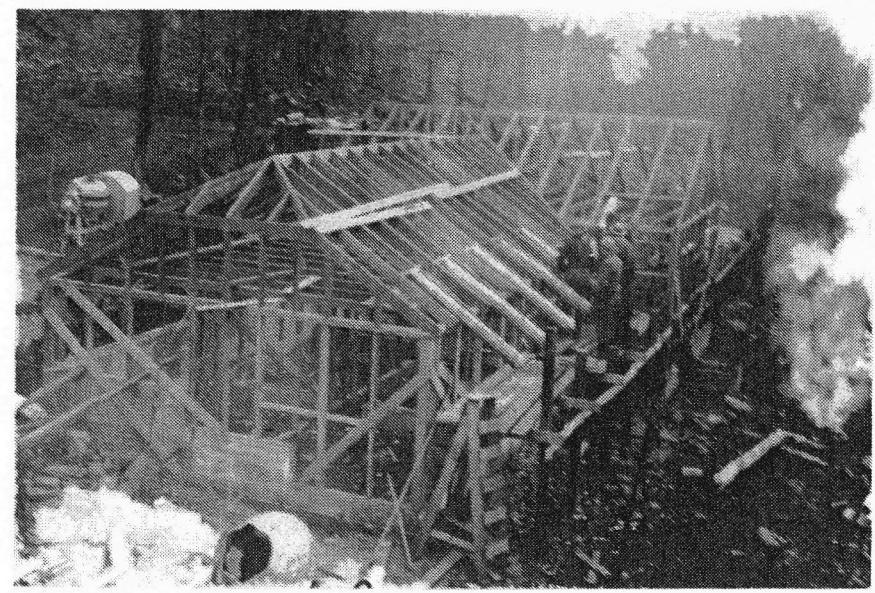
The cabins at Mt. Nebo were straight forward in their use of materials, while those at Devil's Den gave the impression of rustic techniques, but in actuality used modern ones. Of all the cabins built by the CCC in the three parks under study, those at Devil's Den are the most visually arresting. A closer look reveals why. First, there is a strong relationship between the stonework and the cabin form. In some cabins, the stonework rises unevenly around the corners to create a frame. The extensive cheek walls, steps, stone patios, and walkways connect the cabin conceptually to the abundant stone work found elsewhere in the park. [The stone masonry foreman was Paul Walker.] Logs are used selectively to emphasize the juncture between the stone and wood walls, to outline the roof, and as fake rafters. The roof overhangs are broad, giving the cabin a sense of solidity and scale. Even the exterior walls have variety: one cabin may be stone, the next beards, and the third uneven shingles.

Perhaps because of isolation, the cabins at Devil's Den have had much better maintenance and are better preserved than those at Petit Jean and Mt. Nebo. At the former, original window sashes are still intact. At the latter, the original window openings have been filled in with wood framing and small windows.

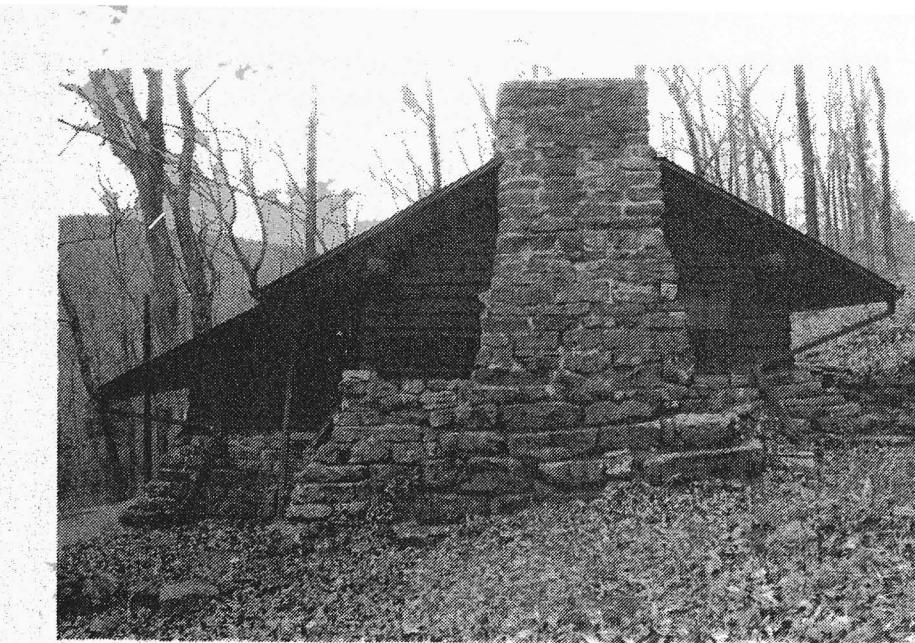
One serious problem in all the parks is the projecting log 'rafters'. If they have not been cut back already, they are usually rotted out. Filling them with concrete has attracted more water and hastened the process. Maintenance crews are now using hard wood putty, and additional use could be made of some of the current preservation products that fill and harden decayed wood.



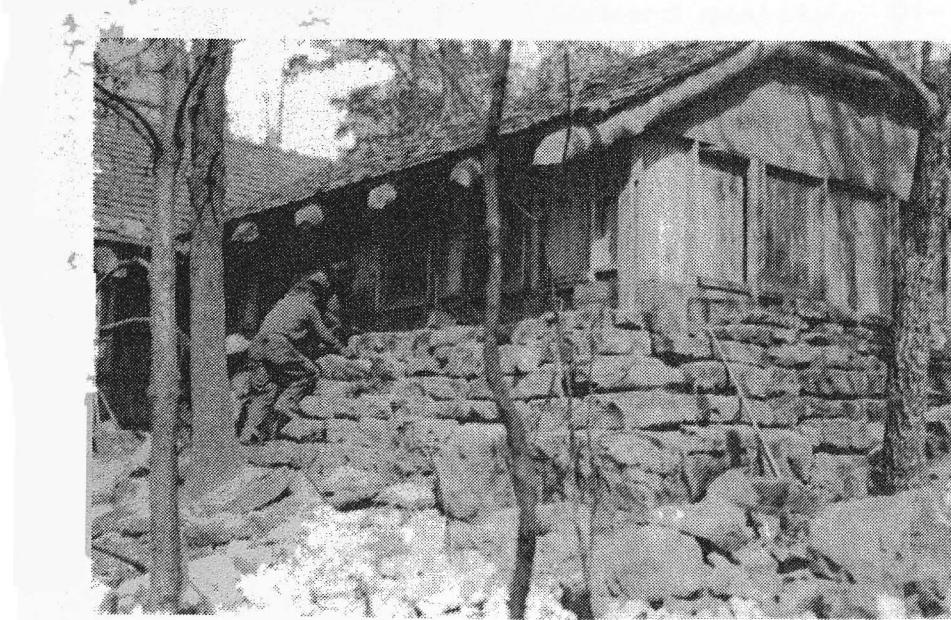
Cabin at Devil's Den. Note frame of stone. Collection: Arkansas State Historic Preservation Program, Steve Mitchell.



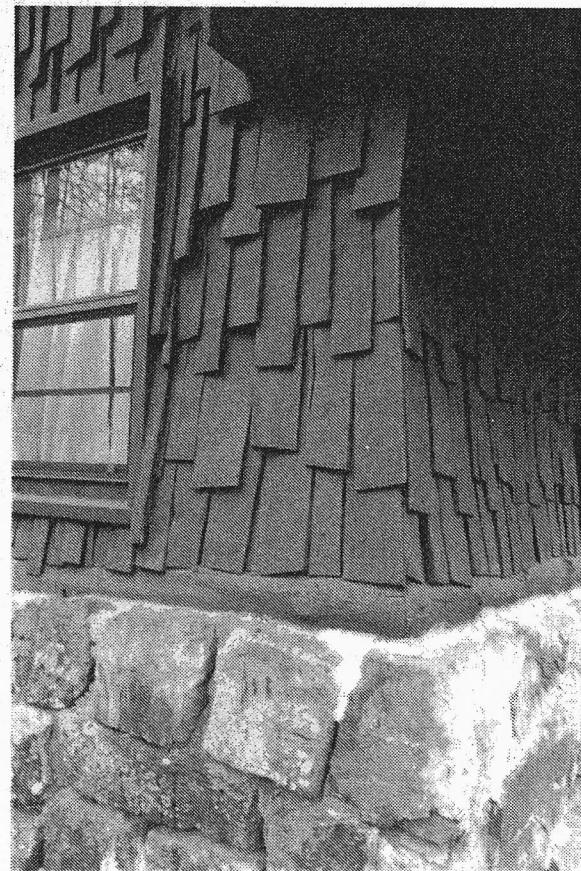
Framing cabin, Devil's Den. Note fake log rafters. Collection of Paul Young.



Roof overhang, cabin, Devil's Den. ASHPP, Steve Mitchell.



Workmen completing stone masonry. Note log outlining shape of roof. Devil's Den. Collection of Paul Young.



Shingles, cabin, Devil's Den. ASHPP, Steve Mitchell.

An additional problem, more visual than functional, has been the stone masonry. As handicapped ramps, parking lot edges, and walls at the edge of overlooks have been constructed out of stone in recent years, a disparity between the old and new has become apparent. Battered walls, an unevenness in outline and stone size, and a predominance of horizontal lines characterize the CCC stonework. The new work is much more formal, with even sized stones, straight walls, and a flatter, patchwork look. Part of the problem, of course, lies in the lack of manpower and skill to quarry and move the larger stones. It may be that with special equipment, an attempt could be made to better match the scale and style of the original CCC work.

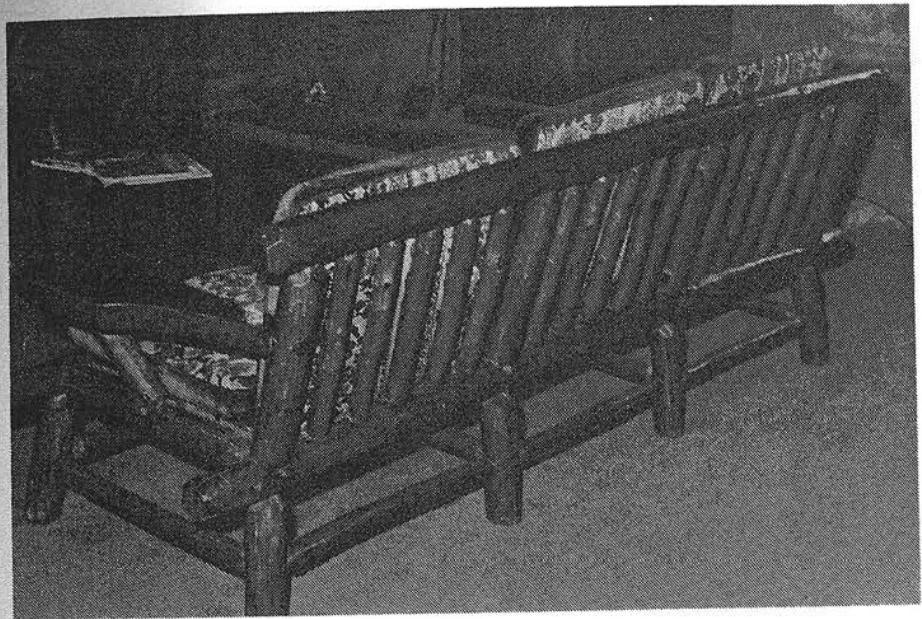
The cabins and lodges or community houses were graced by handmade chairs, tables and settees. Outside areas had rougher picnic tables and benches. All of this furniture has a simple, straight forward quality. Other accoutrements are lamps and door hinges made in the blacksmith shop. There is one set of lights at Devil's Den which is more of a tour de force than anything else. Casing and bulb are sunk in a large chunk of stone. The result, although unusual, was probably not worth the effort.



Cabin at Petit Jean. Note replacement of windows.



Handicapped ramp, Devil's Den. ASHPP, Steve Mitchell.



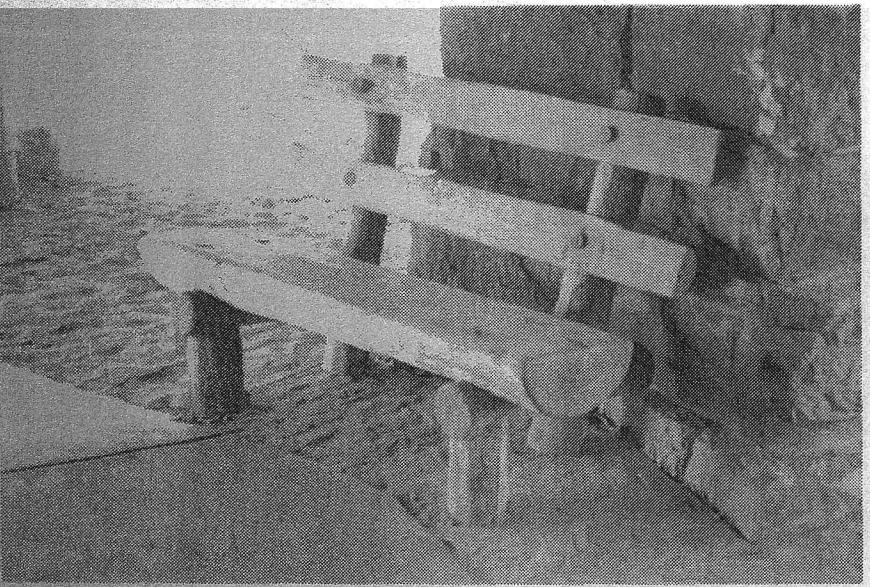
Settee, Mather Lodge. Petit Jean.



Rocking chair, Mather Lodge, Petit Jean.



Cabin interior, Devil's Den. ASHPP, Steve Mitchell.



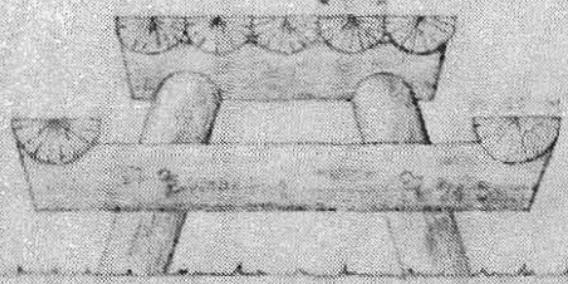
Bench, Community Building, Devil's Den.



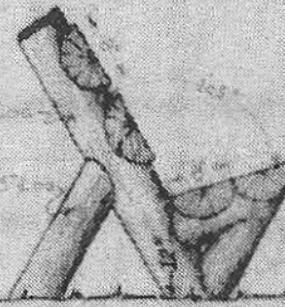
Lamp, Community Building, Devil's Den.



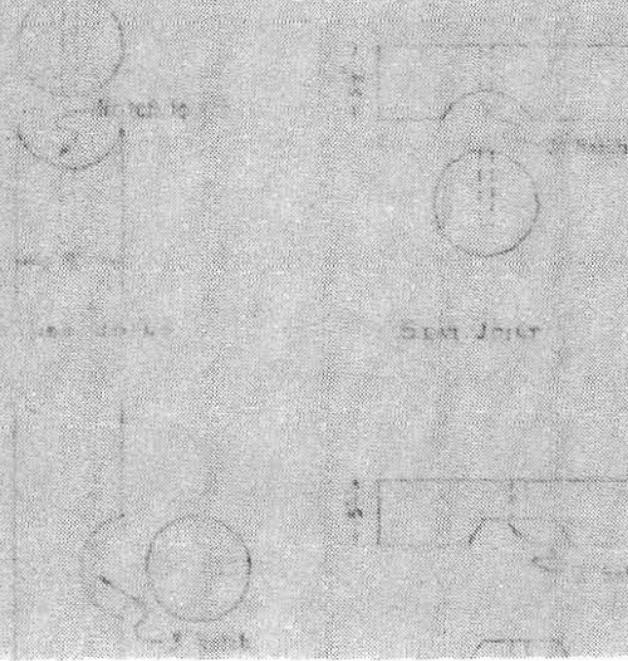
Light sunk into stone, Devil's Den.



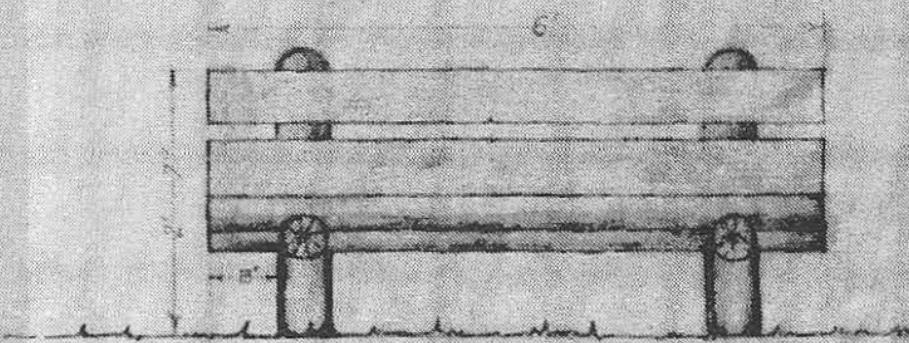
FRONT VIEW



END VIEW OF PARK BENCH



FRONT VIEW



SIDE VIEW - PARK BENCH

Picnic tables. Robert L. Kreitick. 8/17/34

LANDSCAPE

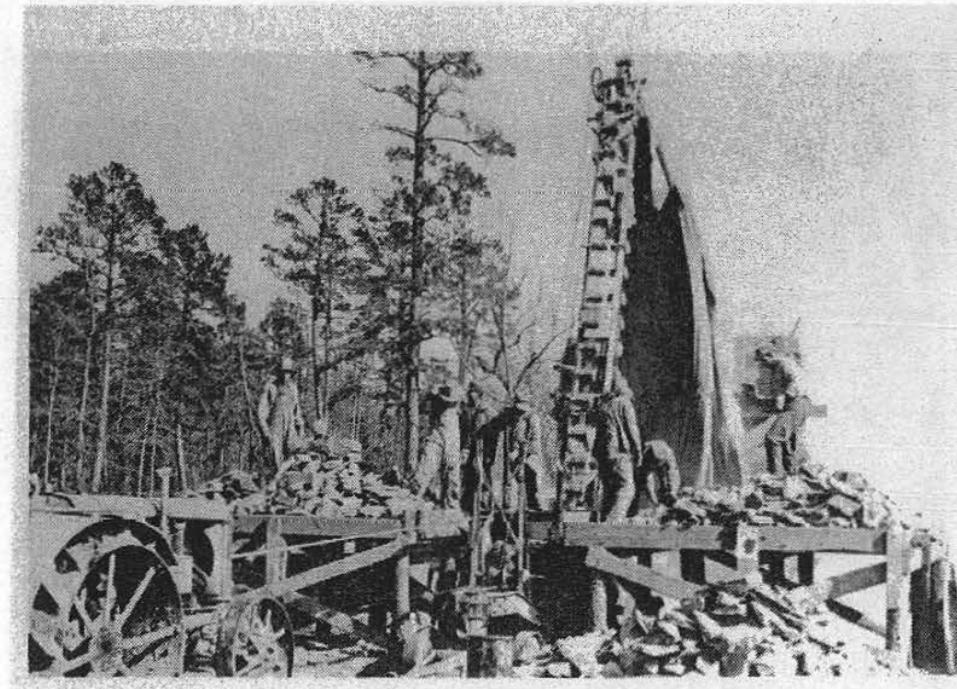
The major investment in CCC man hours was in the underpinnings of the park; its roads, trails, utilities, reforestation, and picnic areas. Reports from Petit Jean list as accomplishments: 15 miles of fire breaks, 8 miles of vehicle roads, 20 public camp grounds, 4 campground buildings, a pumphouse and water tank, 6 foot bridges and two miles of guard rails. In addition the CCC cleaned up 45 acres, improved 100 acres of forest and planted 200 acres. X48

Mt. Nebo listed 8 miles of road up the mountain and into the park, a park drive encircling the mountain (now called the Bench Trail), picnic and camping areas, stone guard boulders and walls, and 6 miles of foot trails. X49

Road work took many months of effort, even with the large crews available. Clearing, leveling and filling required a fleet of dump trucks as well as the use of a road grader. Machinery was used to wash and crush gravel obtained from the site. The gravel surfaces allowed year round use of the roads. Careful attention was paid to cut areas and banks which needed stabilization as well as guard rails. One of the most characteristic features of the roads and parking lots which border the use areas in all three parks are the large boulders set into the ground. A drawing by Robert Kreilick gives specifications:

"Stones to be spaced at unequal distances varying from six inches to four feet and deeply embedded in road surface." (See drawing, "Guard Rails") These have been a very permanent border, because, once installed, they are virtually immovable.

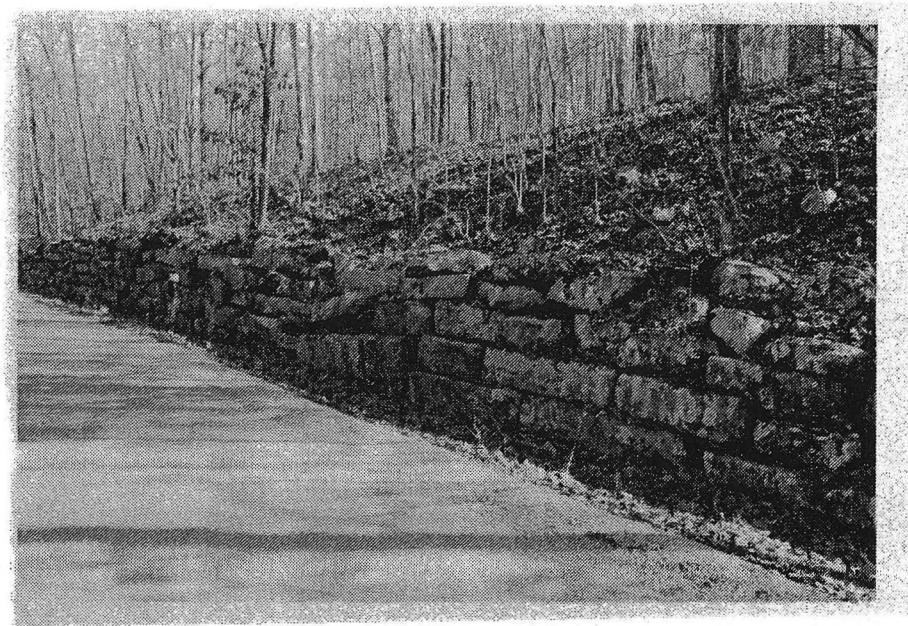
Even culverts and head walls were worthy of quality design. The NPS suggested that the head wall, or facing, be informal and inconspicuous. The culvert itself could be constructed of stone, concrete or iron, but the end wall should extend into the opening to hide the man made materials. X50 The design of culverts was not always purely utilitarian. For example, at Devil's Den, a culvert emerges under the overlook near the dam creating the effect of a spring (see drawings of dam). At Petit Jean, there is an unusually detailed drawing of a culvert along the state highway between the lodge/cabin area and the day use area. Here, the culvert is combined with a spring and pond. On one side of the road, a set of steps lead down to the spring. Parking is provided on the opposite side. Unfortunately, what was a beautiful little roadside rest has now become unusable due to the advent of high speed auto travel and the widening and paving of the road.



Machinery used to crush gravel. Files of Park Naturalist, Devil's Den.



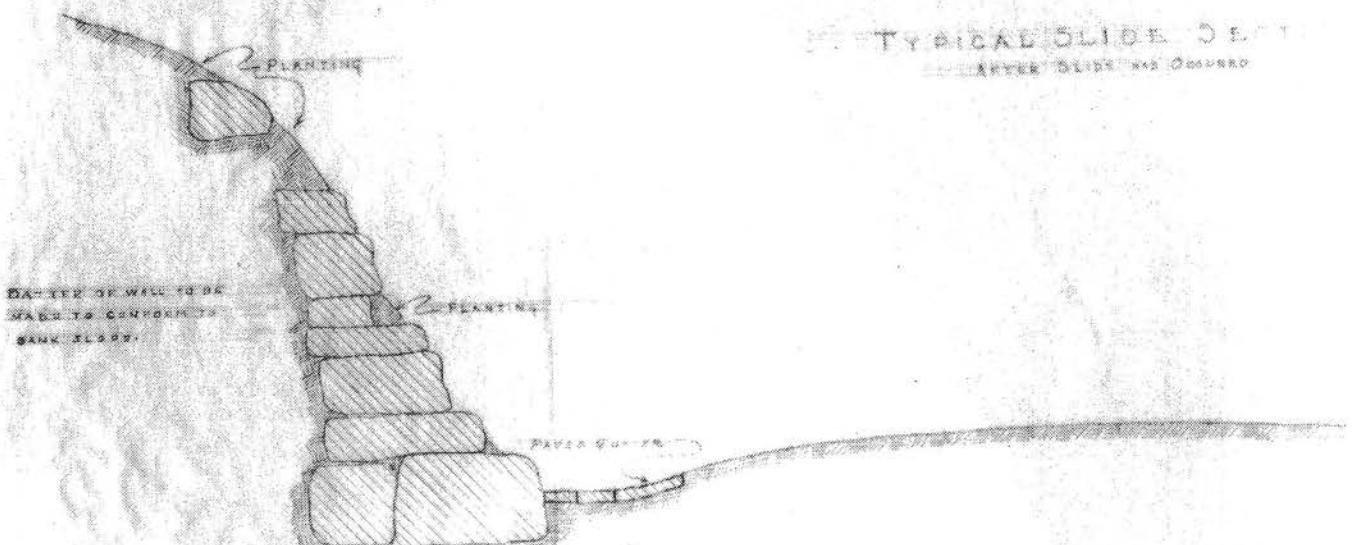
Stone guard rail, Petit Jean. Files of Park Interpreter, Petit Jean.



Stone retaining walls, Devil's Den. ASHPP, Steve Mitchell.

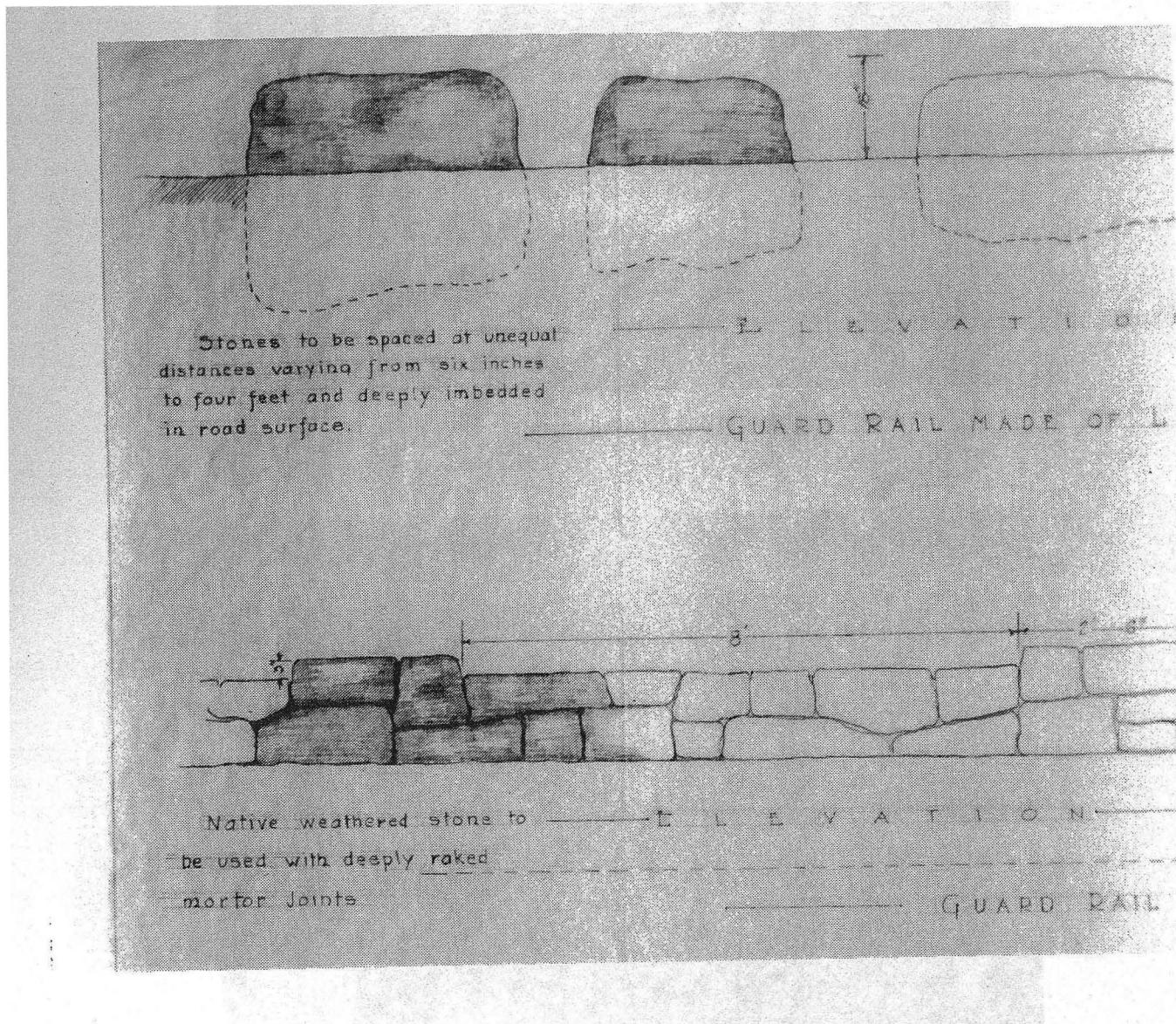


Site clearing, Petit Jean. Files of Park Interpreter, Petit Jean.



TYPICAL WALL SECTION
AFTER MAXIMUM DESIGN

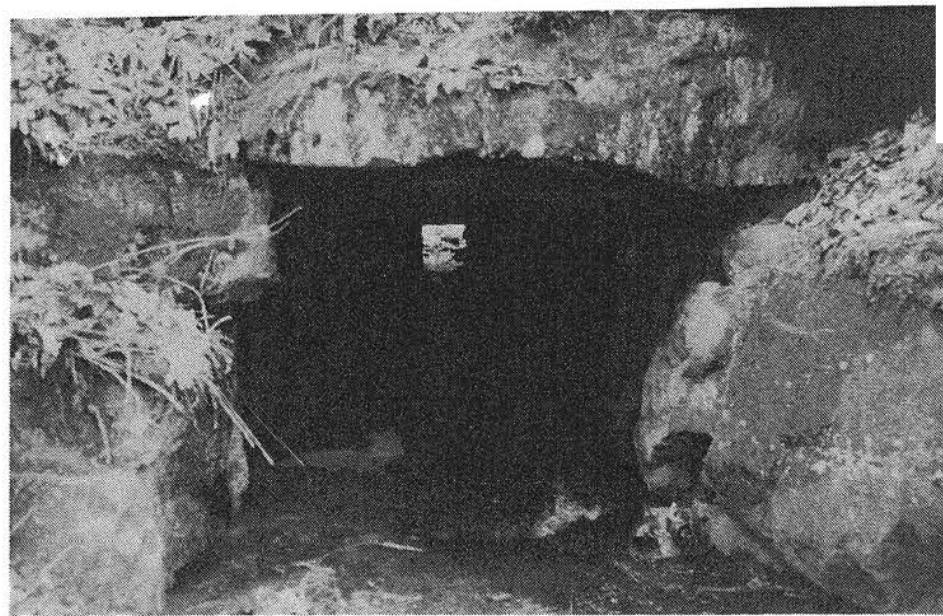
Stone Walls, CCC Drawing #154A-56L, Robert L. Kreilick. 10\20\36.



Guard Rails, Robert L. Kreilick. CCC Drawing #132-30L, 7-23-35.



Set of steps leading to spring and culvert, Petit Jean.



Culvert, Petit Jean.

More than any other element, it is the quality of the trails that distinguishes these three CCC parks. The views afforded by the trails attract people from all over the state of Arkansas as well as neighboring states. It is the trail that takes the visitor out beyond the busy roads and picnic or camping areas to see the myriad forms of nature. Frederick Law Olmsted, in his report on The Yosemite Valley and the Mariposa Big Trees talks about the effect of scenery on the mind and body: ". . . the enjoyment of scenery employs the mind without fatigue and yet exercises it; tranquilizes it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration to the whole system."*51

It is in the trail work where the clearest expression of the philosophy of 'blending' with natural form is expressed. The most arresting aspect of these trails lies in the mystery of their origin: were these rock steps already here? Or, did someone fill in one or two rocks to create a set? Is this bridge formed from a natural ledge where water washed away the soil, or was it placed there by a CCC crew? The NPS recommends that "the effort should be to give constructed steps the appearance of natural ledges . . . it is most important that the width of treads vary. Rocks forming cheeks at either side of the steps should vary in horizontal alignment, as well as in height, and should be tied and blended into the setting by being occasionally and irregularly extended some distance into the vegetation to either side.. . risers should not exceed 6" in height."*52

To construct the trails, rocks were pried loose from the nearby hillsides and embedded deeply enough so they could not work loose. Over time, however, some of the original stone work has been eroded or become dislodged. Where it has been rebuilt, the fundamental principles of embedding large stones and the need to blend stonework into its surroundings have often been forgotten. Also, to slow erosion and drain the paths, railroad tie timbers have been installed. Because the original stonework is so outstanding, what is an acceptable trail building method in other parks often seems out of place on the CCC trails.

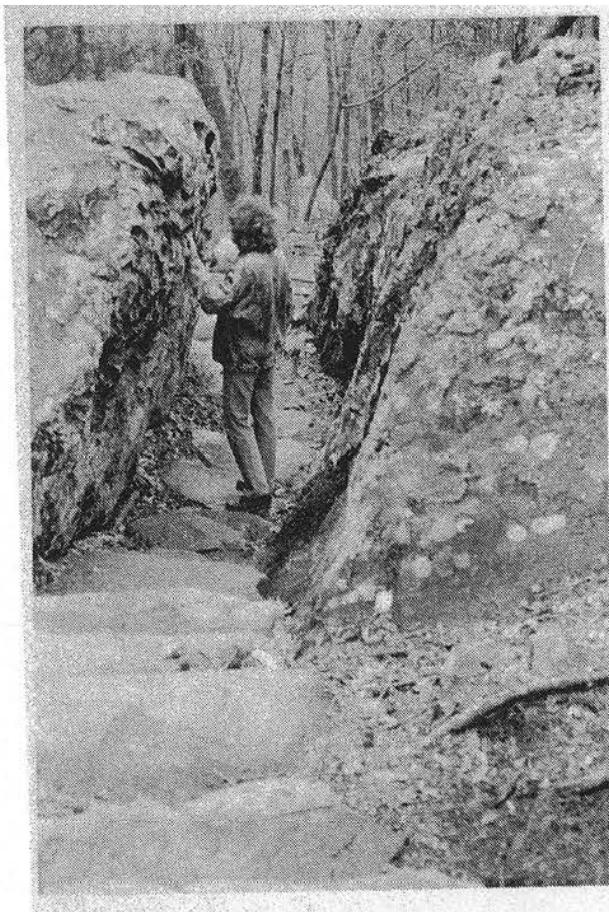
Trail bridges were designed to cross streams and gullies. Often built of logs mortared into stone buttresses, they were not repairable in their original form because there was no way to replace the logs. Their design satisfied every standard of quality save one: that of long term maintenance and restoration.



Using a 'pry pole' to move rocks. Files of Park Interpreter, Petit Jean.



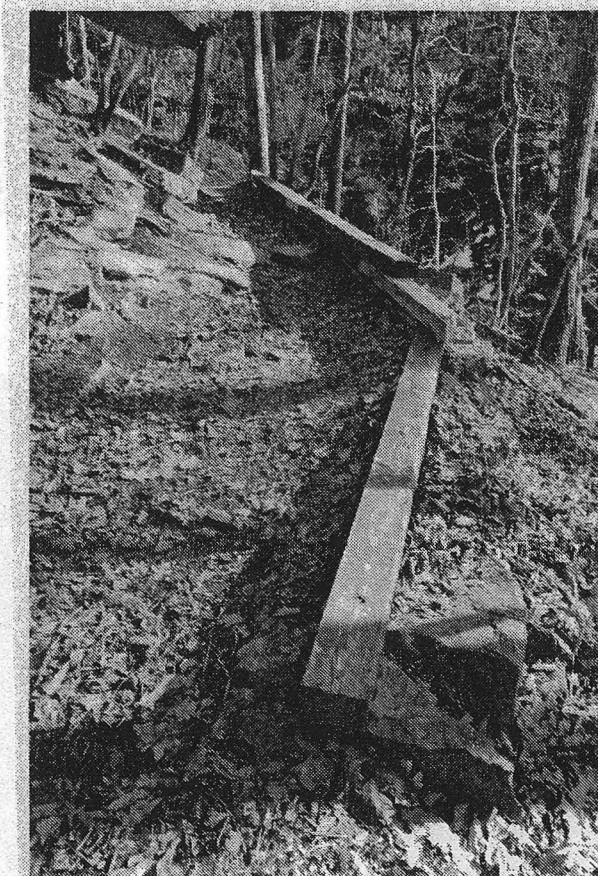
, Petit Jean.



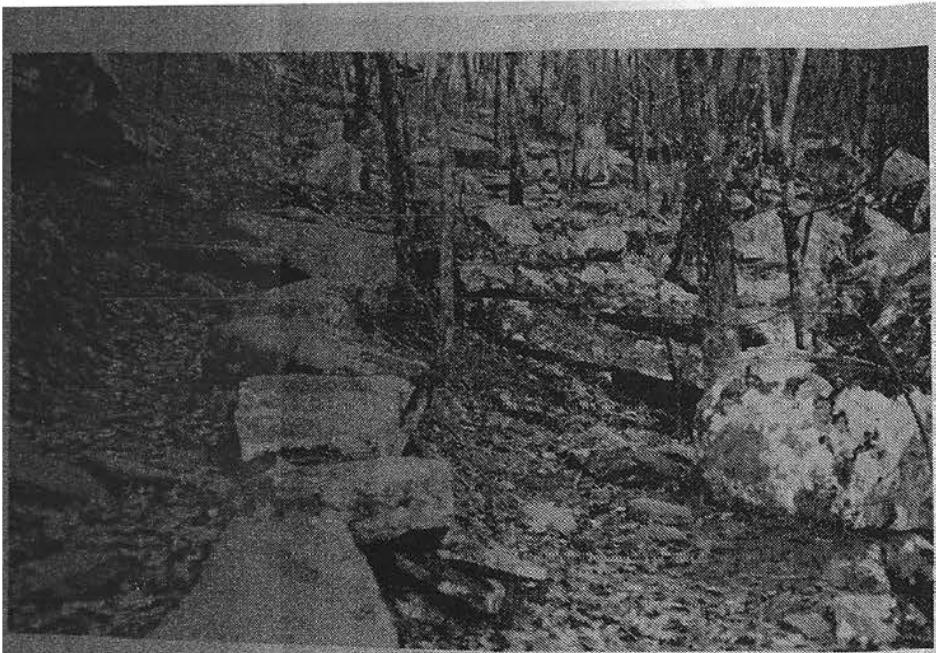
- Steps between rocks. Trail below Mather Lodge, Petit Jean.



Recent step construction, Devil's Den. Note unnatural look of cheek walls.



Edge of trail, Devil's Den.



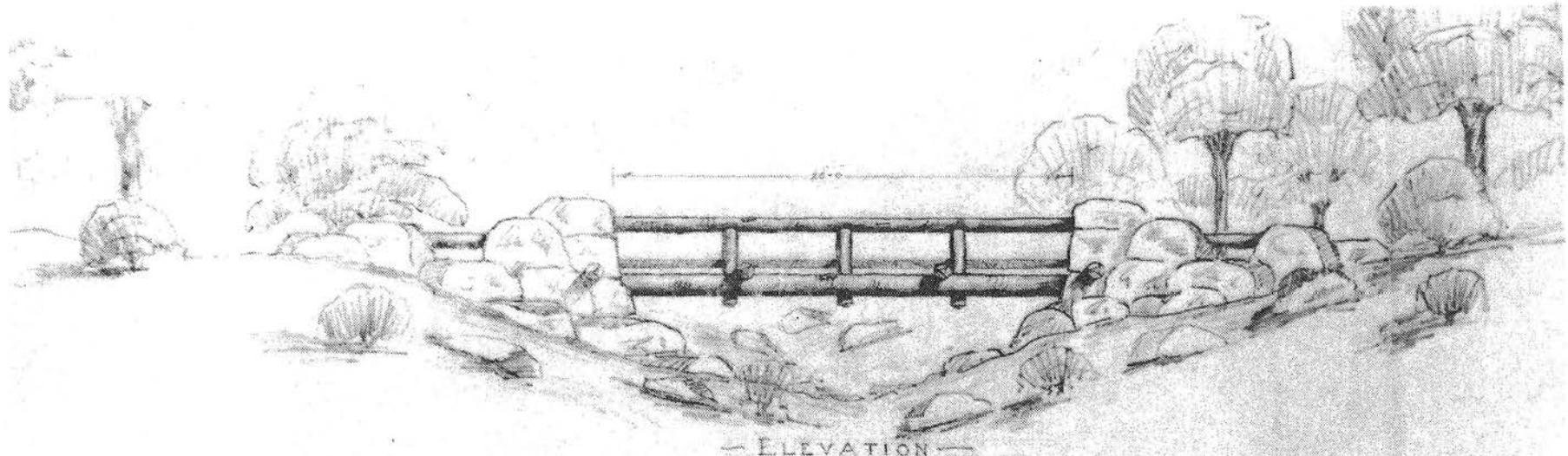
Edge of trail, Petit Jean.



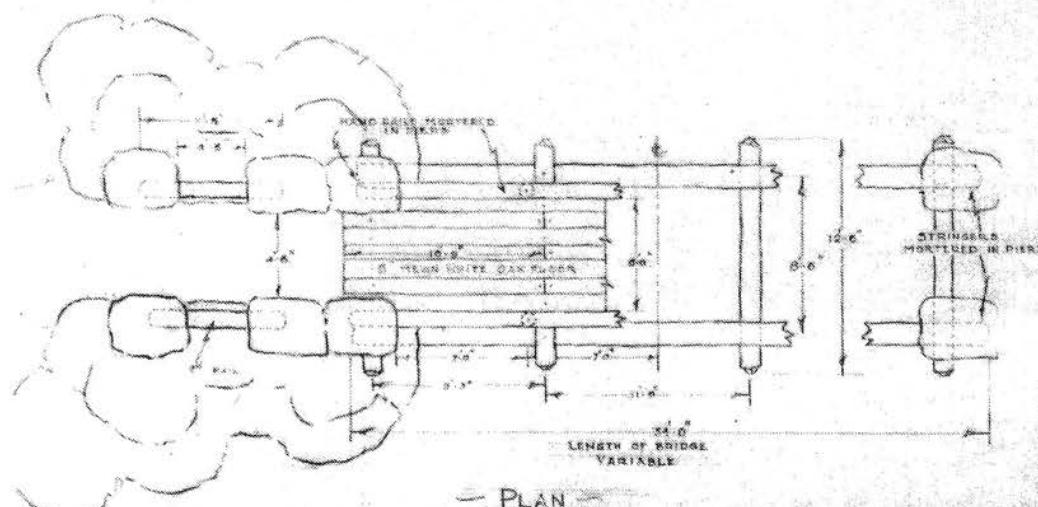
Bridge on 'Boy Scout Trail' (North side of Blue Hollow). Files of Park Interpreter, Petit Jean.



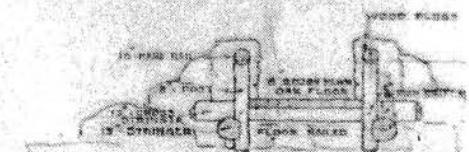
Trail bridge, Devil's Den. Collection of Paul Young.



— ELEVATION —



— PLAN —

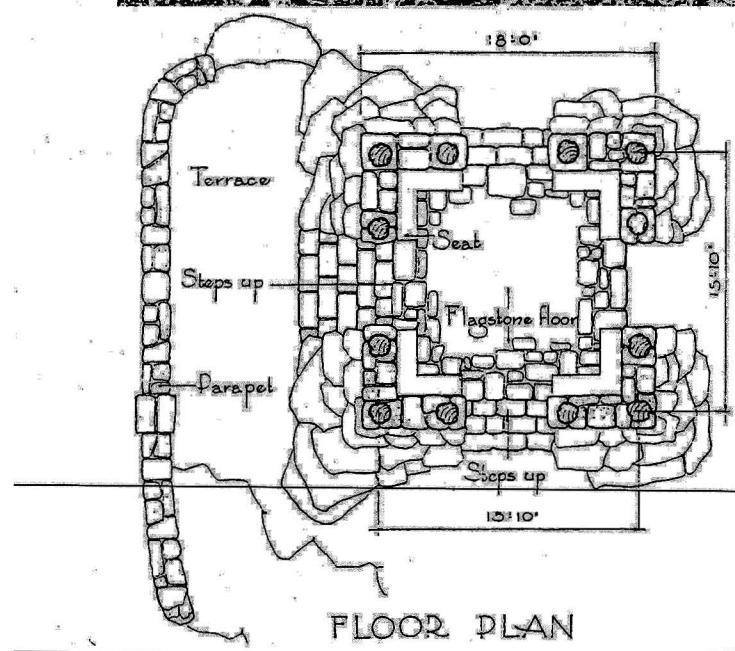


— SECTION —

ESTIMATE OF COST					
BILL OF MATERIALS		LOCAL PARTICIPATION			
DESCRIPTION	AMOUNT COST	TOTAL	DESCRIPTION	AMOUNT COST	TOTAL
CEMENT	\$1.00	\$1.00	NATIVE LOGS	\$1.00	\$1.00
SAND	.75	.75	NATIVE STONE	.60	.60
BOAT SPIKES	.00	.00	IRON	.75	.75
IRON	.00	.00	CROWNS	.00	.00
CROWNS	.00	.00			
TOTAL		\$4.75	TOTAL		\$4.75
			LABOR		
			UNPAID CCC SWAGGER		
			WILLIAM		
			WISER		
			TOTAL		
GRAND TOTALS					
MATERIALS					
LOCAL PART					
LABOR					
TOTAL					

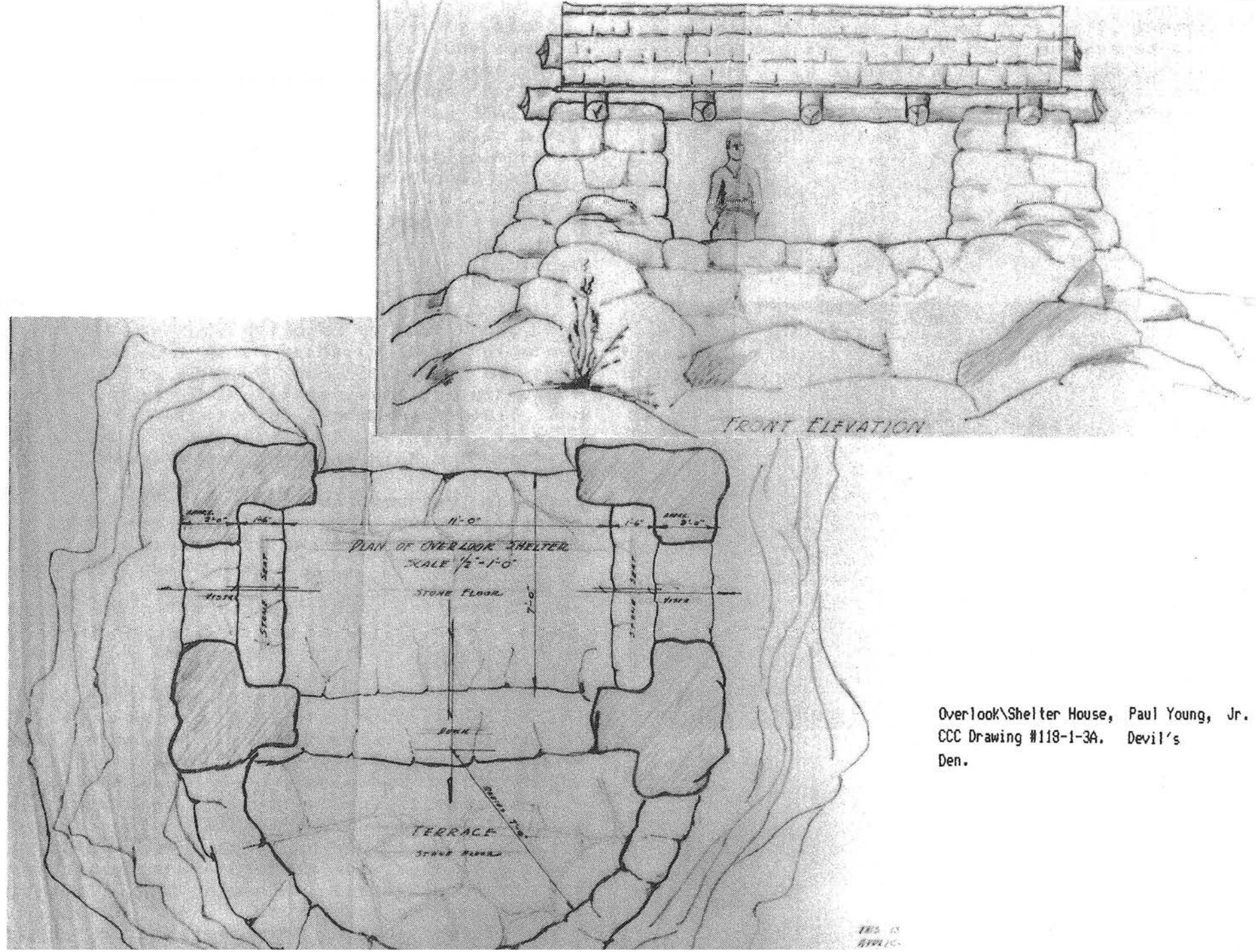
DEPARTMENT NATIONAL BRANCH OF PLANNING	DEVIL'S PARK WEST
DRAWN BY MARSHLAND	TDA
APPROVED 20	

Trail Bridge, Devil's Den. Harold A. Marsh, Landscape Foreman. (no date)



Overlook Shelter, Devil's Den State Park, Arkansas

Nominated from the floor as a candidate for a Pulitzer Award for Park Structures, if and when created. This little structure will cause chagrin and consternation among experts in destructive criticism who will be hard put to ferret out its shortcomings. An inventory of all its points of high merit is impossible in a limited space, but would surely lead off with blending to site, character of rock work and vigorous scale of the log timbers. The picturesque tree is flattering to the structure, but, it must be admitted, with unquestionable justification.



Overlook\Shelter House, Paul Young, Jr.
CCC Drawing #118-1-3A. Devil's
Den.

At the most spectacular viewpoints along the trails, shelters were built. One shelter at Devil's Den was highly praised by the NPS, which nominated it for the "Pulitzer Award for Park Structures." The Pulitzer Prize, of course, does not have such a category, but the N.P.S. was clearly impressed by the quality of the structure. X53

The shelter still exists, but the roof framing of logs has been long since replaced with conventional framing.

A second shelter, designed by Paul Young, has the same characteristics in its 'vigorous scale of log timbers' and 'character of rock work'. Its overscaled, massive structure befits its location on a prominent bluff, and gives the impression of clinging like a limpet despite the force of wind and weather.

A comparison to more contemporary shelters reveals the latter's spindly quality, their lack of character, and their discord with their surroundings.

Signs and markers used simple lettering. One of the original signs is still at Mt. Nebo, stored in the interpreter's office. Other than its value as a historic relic, it has very little quality as a design per se. Signage was related to the construction of park elements, and typically took on an architectural characteristic in its stone base. In Paul Young's original design of the entrance sign to Devil's Den, the design of the structure takes precedence over the sign itself. The newer signs now being carved for the state parks actually show more of a craftsmanship and homespun artistry than did the original signs. They reveal some of the images associated with the park: at Petit Jean, for example, the signs include Stephen Mather on his horse announcing Mather Lodge;

a species of bird, the red crossbill, announces the Visitor's Center; and the entrance to the park, is a particularly handsome carving featuring the falls. These are in the best tradition of the CCC even though they are not from the CCC period.



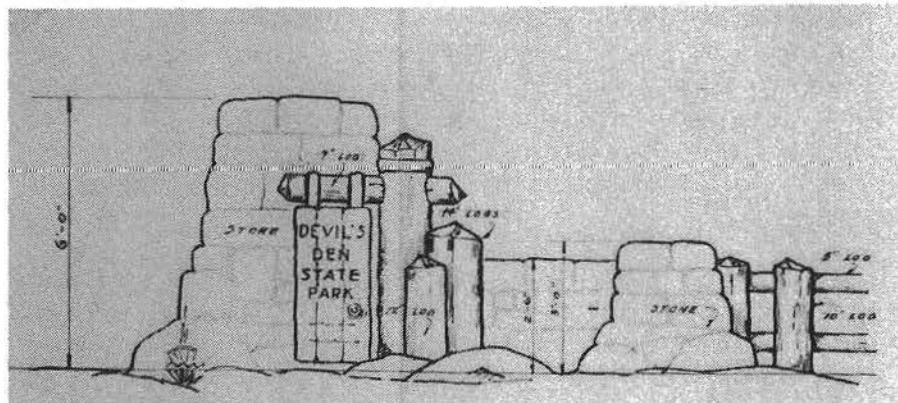
Sign, Petit Jean.



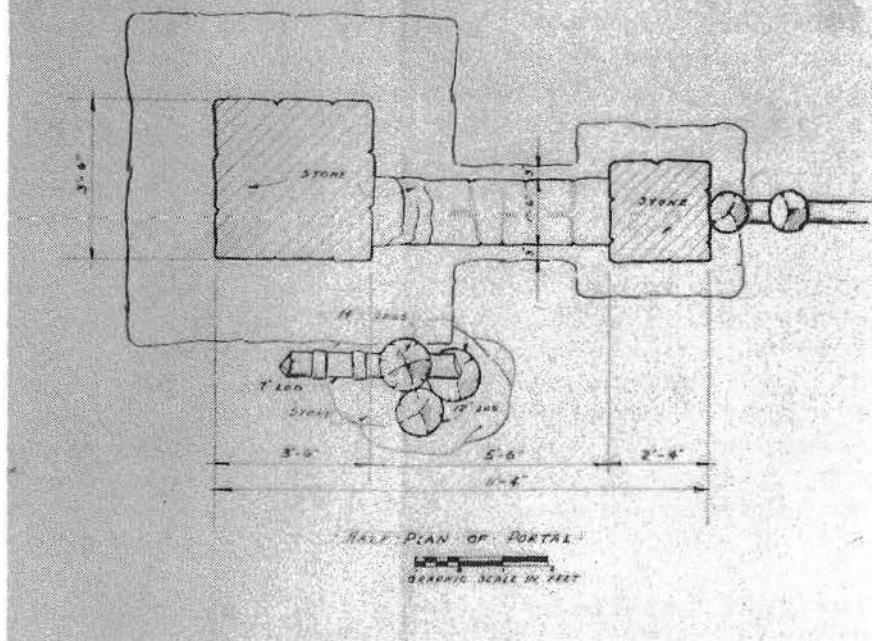
Shelter Construction. Collection of Paul Young.



Entry sign, Petit Jean.



ONE-HALF - FRONT - ELEVATION



Pump House and Portal, Paul Young, Jr., Devil's Den.

The legacy of the CCC in Arkansas includes some fine parks and facilities that are well known and loved by the public. They are valuable as a recreation resource but are also valuable as historic "artifact"—a testimony to an important chapter in the history of Arkansas.

There is increased use of all parks:

"The state Parks and Tourism Department reports that Arkansas attracted 16 million visitors in 1988 who spent \$2.1 billion. That's an average of \$131.94 for each person.

"Figures from 10 years ago show that Arkansas attracted 13.6 million visitors who spent \$1.05 billion, or \$77.48 per trip. Last year, travel was responsible for 47,469 jobs in the state and a payroll of \$382 million."⁵⁴

The original parks were never designed to accommodate the large number of park users. The parks are experiencing pressures unlike anything envisioned by their designers and builders. Modern requirements, including plumbing, electricity, heating and cooling have placed additional demands on existing facilities and new construction alike. Straight forward architectural solutions that typified the CCC facilities are no longer easy to attain. Additions are often unsympathetic to the rustic images of the past and sometimes even antagonistic. Budget realities preclude much attention to new construction that does homage to the past or to adequately repairing and restoring old work.

It is impossible to turn the clock back and restore the parks as they were, nor would that be desireable. Compromise must be forged between the realities of modern visitor expectations, budget and the concerned historian. There is also the need to protect and preserve the environment and the beauty of the original designs. The means to adjudicate the diverse requirements and accomplish park goals is a MASTER PLAN.

The master plan concept was developed by the National Park Service seeking to balance their long term preservation responsibilities with the need to provide for present day users.

The master plan is not so much product as process. It begins with analysis. The analysis starts with the site and includes a thorough cataloging of the assets and problems, natural and cultural. It means taking a hard look at what exists on the site and what potentials there are for improvements. Identification of present short-comings such as traffic problems or deteriorated structures are important as is listing trends in use. From the analysis it should be possible to identify possible course of action.

A program analysis needs to be conducted concurrently. This should detail the recreation programs and interpretation efforts already underway, as well as plans for the future. Those opportunities for interpretation arising out of the site analysis need to be considered, as well as prospects that possible restorations or even reconstructions might provide.

An optimum development plan for the full realization of all program and site opportunities should be documented. This can be the subject of a master plan for development.

This is important even where there is little likelihood of ever realizing such development, as it will be a guide to the location and development of such components as are judged to be realistic in a shorter time-frame. They are also useful in making decision makers aware of the potentials and may inspire action and funding.

Preservation efforts are often precipitated by threat of destruction rather than as a result of reasoned inventory and establishment of priorities based on program merit. As a component of the master plan, preservation and interpretation are properly provided for.

Support facilities such as parking and access will be planned in a manner that will not occasion having to relocate or compromise existing facilities as expansion occurs. Master planning will also help to set priorities for such facilities as it becomes obvious which components are most essential to a variety of scenarios.

Capital budgets can be prepared on the basis of the proposed development schemes. The master planning effort outlined should include input from park superintendents, program people such as historian or naturalist, park foreman, etc. but should also involve administrators and planners at the state level since they must set the priorities for the system and consider the role of each park with the system. Once a comprehensive master plan has been prepared it should be kept up to date as projects are developed and it should serve as a guide to deliberations as it changes over time. Successive iterations of master planning become historic records themselves valuable in subsequent studies.

Master planning includes determining optimum recreation carrying capacity:

"Optimum recreation carrying capacity is defined as the amount of recreation use of a recreation resource which reflects the level of use most appropriate for both the protection of the resource and the satisfaction of the participant."*55

One of the ever increasing concerns for park planners is the problem of overuse. As parks become more and more popular there comes a point when more visitors arrive than can be accommodated. When facilities are overtaxed they often become abused. When parking lots are full people will park anywhere they can find a spot, often doing damage to the landscape.

"Only limited research has been done on the particular problem of how to determine optimum recreation carrying capacity; how to arrive at that level of use of a recreation resource or facility which provides the desired participant satisfaction (social capacity) while protecting the recreation resource (physical capacity) upon which a satisfying recreation experience is based.

"The blending of factors which determine physical capacity of a recreation area with those which determine the social capacity makes it possible to determine optimum capacity guidelines. The blending of the 'physical' and the 'social' aspects of capacity is one of the most critical actions which can be taken to keep our parks and recreation areas from becoming overused and destroyed, and from becoming places where the participants' enjoyment diminishes to the point of frustration."*56

Obviously master planning includes strategies for controlling or limiting the number of visitors consistent with the park resources. This can become difficult where a park has multiple entries or is bisected by a public highway such as at Devil's Den State Park.

HISTORIC PRESERVATION

Although the CCC sites are just over the 50 year mark, which is the accepted age for designation as "historic", they exemplify an important period in history when heroic measures were necessary to maintain the social order. They serve as a reminder of some basic American values: conservation of the land, the necessity for hard work, and the potential beauty of practical design based on pioneer prototypes.

In Guidelines For Park Practice Policy And Planning, the National Conference on State Parks (7/59) described criteria for the "Classification and Selection of Historic Sites and Buildings". They illuminate some of the reasons why the CCC sites are worth preserving. The document asserts that historic significance is based on, among other things:

"structures or sites in which broad cultural, political, economic, military or social history of the Nation is best exemplified, and from which the visitor may grasp the larger patterns of our American heritage. . . and "structures which embody the distinguishing character of an architectural type-specimen, exceptionally valuable for a study of a period style or method of construction." #57

Not only are these criteria met by the CCC work but, at their best, are examples of a truly democratic notion- that public parks are to be built by common men for the common

man. These parks were built in ways which looked directly to the beauty and abundance of the land itself for a free expression.

This is why the water tower at Petit Jean, designed in the fashion of a medieval tower, is so completely out of character with the 'rustic' design style- its historic roots being an alien social system at odds with our fundamental beliefs. Those in the National Park Service who oversaw the early work, as soon as they saw it, insisted the designer be fired for the affront.

Evaluation of the CCC work for purposes of historic preservation involves two separate issues:

- (1) Which historic CCC sites are worthy of preservation?
and
- (2) what methods should be used in the preservation process?

Thus, the application of guidelines is actually a two stage process: the designation of good examples, and finding the best way to maintain and restore these examples. An additional issue is the construction of new facilities which are in harmony with the old.

GUIDELINES FOR EVALUATION

The first stage, that of evaluating sites and structures for preservation, should be completed in advance of immediate restoration or maintenance problems. This way, a long term decision making process can be put in effect which will prioritize the activity of the State Parks staff. If this is done in advance, then there will be general agreement on what work holds greatest importance, and so on. Also, by giving the staff time to reflect on ways to retain the CCC style and building methods, the requirements for

adaptation and compromise necessary to accommodate current use will be solved more creatively.

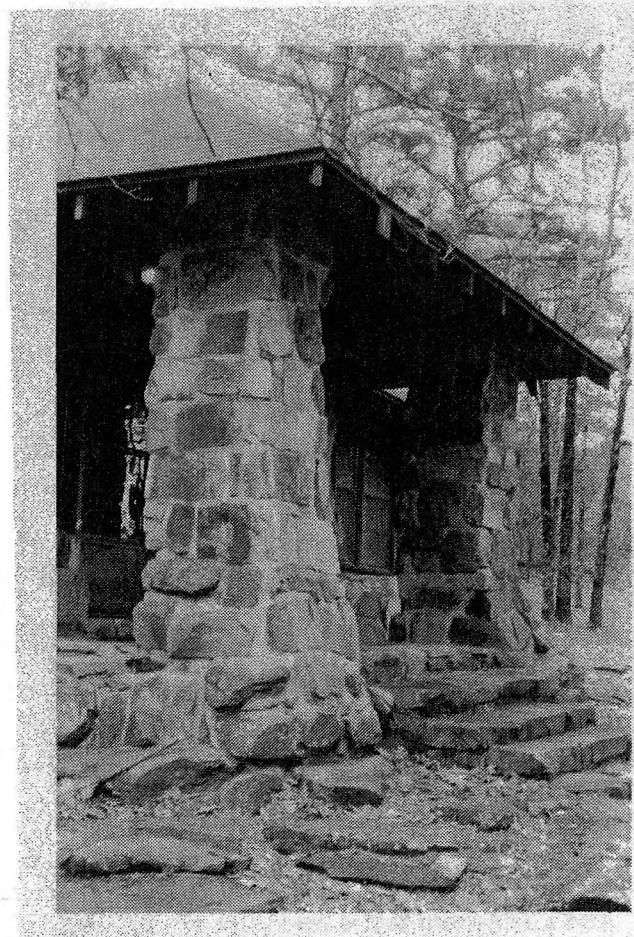
One method used to identify sites worthy of preservation is through a listing on the National Register of Historic Places. The Register is an official statement by which agencies know which properties merit preservation. Other Federal efforts to advance preservation include the Historic American Buildings Survey, a long range program for assembling an archive of historic American architecture. Under this program, photographs and measured drawings of historic structures are made by the National Park Service and maintained in the Library of Congress.

As a basis for preservation, there are two major concerns. One is the historic and design value of the site itself, and the second is the level of constraint posed by the adaptation of the site to recreational use, and the costs involved.

The guidelines listed below take into account both concerns:

1. The design makes a conscious effort to blend or "knit" its structure and materials with the natural site. The Devil's Den dam, the dam at Lake Bailey (Petit Jean), various cabins, and trails are good examples of this principle realized.

2. The details of the design reflect the involvement of the craftsman or builder in elaborating the design of the architect or landscape architect. Seat walls in cabin foundations, niches in fireplaces, cut ends of logs, and trail work are examples.



Stone work at Cabin #1, Petit Jean. Columns and stairs spread to 'blend' with site.

3. Construction methods either copy the old "pioneer" techniques of post and beam or log cabins, or attempt to reproduce the effect of these techniques.

4. The site or structure is part of a larger composition (context) which is in harmony with the natural site features and other built elements. The dam, waterfront and community building at Devil's Den, and shelter #1, the stone bridge, and dam at the lower lake at Petit Jean are examples.

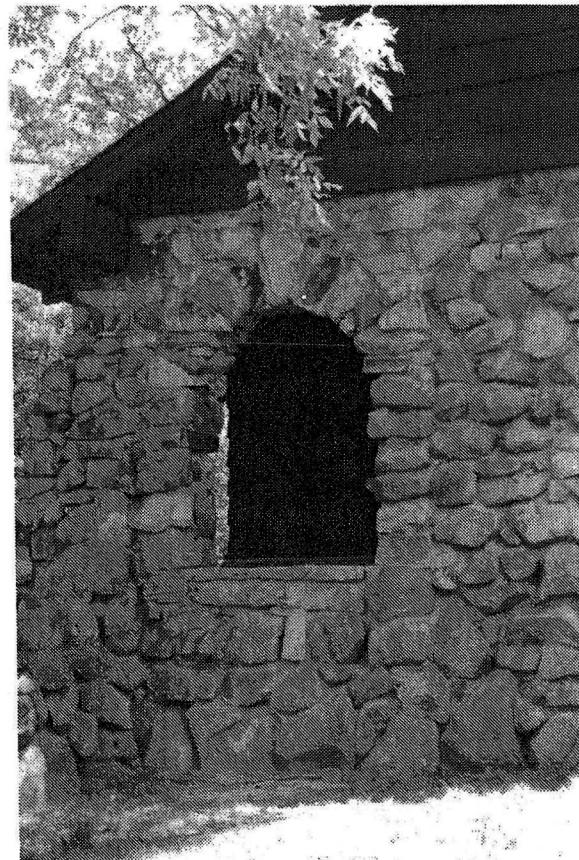
5. The scale and mass of elements may be oversized for structural requirements, but fit their location among the large outcroppings, trees and landscape features. Massive stones, large corner posts, deep overhangs, and steep roofs are examples.

6. The site or structure should occupy a key position in the park, either visually or functionally. It should add substantially to the visitor's experience.

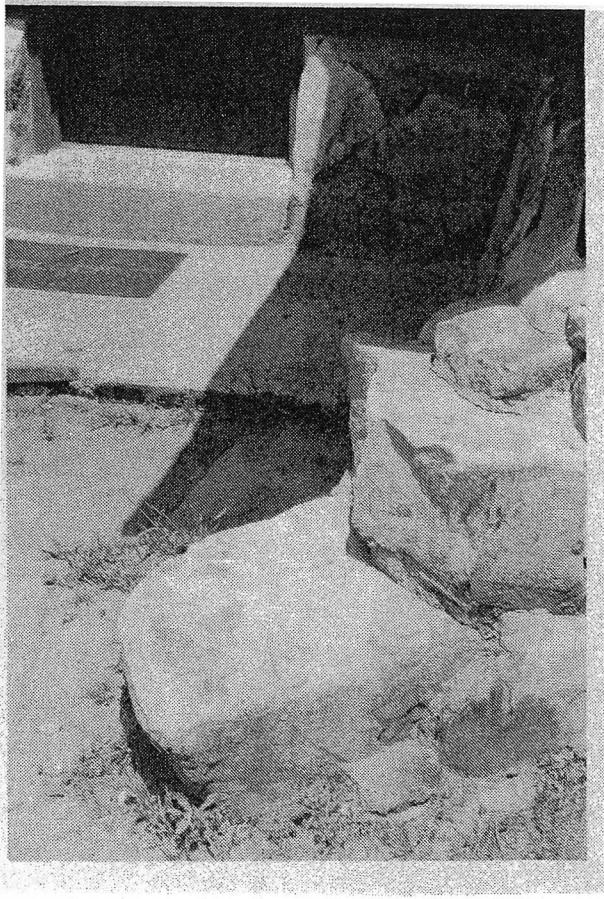
7. The site has a current or proposed recreational use that is compatible with its original design.

8. The cost of restoration or maintenance should not be beyond the financial means of the park system. Maintenance and restoration decisions should be based on a selective approach with equal weight given to design quality, function, and cost.

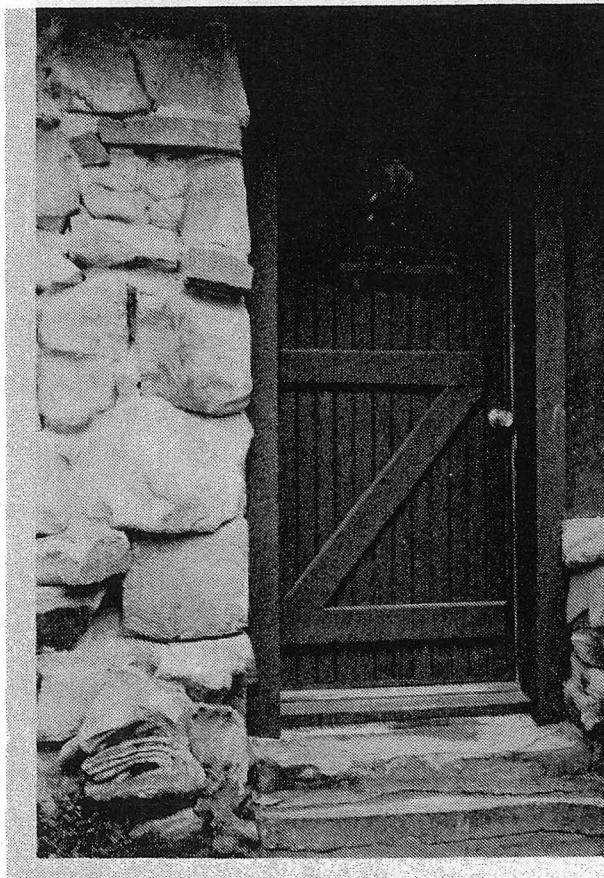
9. Elements or sites that are unique should be identified and preserved. An example is the singular surviving log cabin at Mt. Nebo.



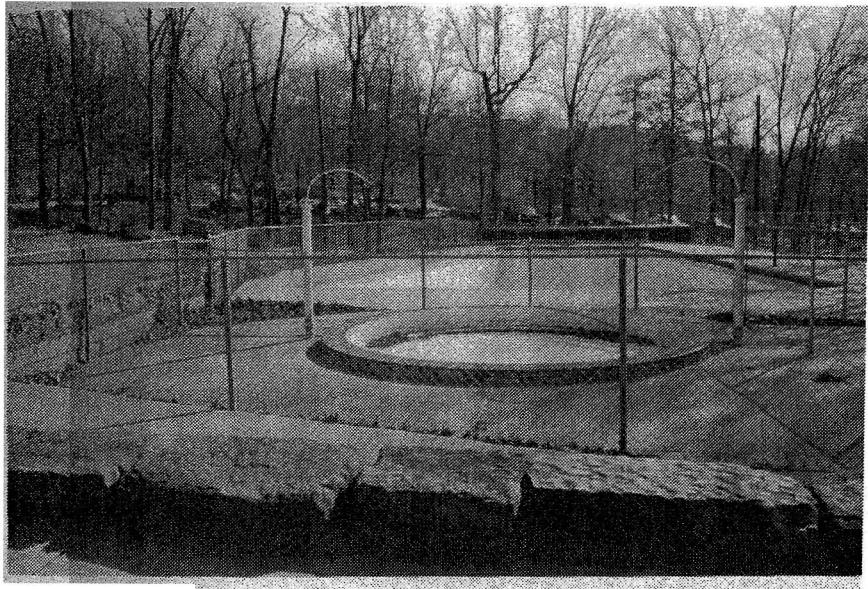
An addition to a cabin at Mt. Nebo: stonework does not use horizontal lines to layer into the site, and arched opening is a more sophisticated style.



Evidence of craft: a stone seat built into the foundation of a cabin at Mt. Nebo.



Compatibility and craft: details of a cabin door, Petit Jean.



Lack of compatibility: chain link fence, concrete swimming pool at Devil's Den.

GUIDELINES FOR MAINTENANCE AND RESTORATION

A second set of guidelines is more specific, and will come into play once broader decisions are made about the relative value of each CCC site or structure. It is clear that the original labor intensive methods of construction in the CCC period cannot be duplicated, but maintenance and rehabilitation work need not be in conflict with the originals if certain guidelines are followed. This is in line with policies already established by the State Parks which suggest that, on historic sites:

"alterations and additions do not destroy significant historical, architectural or cultural materials, and . . . design is compatible with the size, scale, color, materials, and character of the structure and its environment." X59

HISTORIC INTERPRETATION

In Guidelines for Park Practice Policy and Planning from 1960, it is suggested that:

"in addition to preservation, the administration of historic areas should be aimed at interpretation. The inspiration and educational values of historic sites are not always self-evident to visitors. Accurate information is generally essential to the understanding and appreciation of historic sites. . . media such as interpretive leaflets, historical signs and markers, trailside exhibits and museums . . . should be available. Interpretive staffs should collect, study and preserve historical sources . . . results of such research should be preserved and kept accessible so that the results will be cumulative and usable by others." X58

It is no longer possible to produce buildings, bridges, dams and trails in the manner of the CCC as labor costs are prohibitive today. It is not even possible to keep all the buildings and facilities inherited from the CCC days in optimal repair. Nevertheless, it is important to respect the CCC heritage and employ modern technology and modern materials to prolong the life of those inherited facilities and in the creation of new facilities in harmony with the past.

Recognizing the limitations of funding and the likelihood that liberal funding for construction or maintenance of park facilities is never going to be forthcoming, new facilities should be designed and constructed accordingly.

This means accepting some departure from the ideals expressed in the park service philosophy. Using steel, pre-hung doors, for example, will likely prove more economical than either wood site fabricated doors, or factory-made wood doors. Fortunately, there are metal doors available that are scarcely discernible from the traditional wood doors. They are more secure and able to withstand long and heavy use.

Modern log structures can also be constructed economically. There are a great many manufacturers of log homes using a variety of techniques that expedite construction and minimize the problems inherent in the old fashioned methods of log construction. To begin with the logs are manufactured to be uniform in size and shape and employ modern sealers that obviate "chinking" and insure against heat leaking from the structure.

Modular construction of log structures has also been developed. Mechanics Illustrated reported:

"The basic building blocks of a log home are all the same, at least in two dimensions. The only thing that really differs from log to log is length and where notches will be cut for fitting. In precision-cut construction, the logs are cut to a uniform size, so the fit is generally true no matter the placement of the log.

"The modular construction process at the site is fairly simple, too. A crew of two, a foreman and a crane operator are all that are needed for most homes. The site is prepared by first clearing the land, digging a basement (optional) and laying up a foundation to specifications. While this is going on, the modular pieces are fabricated at the factory on jigs and lagged together, with insulation tape placed between the logs. A typical house has, on the average, ten modular pieces to be shipped on a couple of flatbeds.

"At the site, a crane unloads the modules and lifts them into place. The pieces fit together like a three dimensional jigsaw puzzle." [Mechanics Illustrated, January 1982]

Modern day technology can also be used in the application of wood preservatives, and modern wood fillers which stabilize rotten wood and fill the voids.

Guidelines for the maintenance and restoration of CCC structures include the following:

1. As much as possible, place utility connections underground. Where they become visible, place them in inconspicuous locations or screen them. Paint to match the color of the CCC structures.
2. Use wood or stone construction for trash cans, signs, railings, etc.. Keep appurtenances to buildings simple and uncluttered. For example, Mather Lodge has accumulated signs, railings, lights, newspaper venders, and notice boards near the entry. Some of these should be consolidated, removed or relocated.
3. In major restoration work, calling for the replacement of structural elements, use the services of an architect or engineer to determine how to keep the structure stable during the repair process.
4. Stockpile materials which are difficult to order through suppliers. After major storms encourage the public to call the park system for removal of large diameter trees. These can then be treated and kept for restoration work. Also, stockpile stones as an available source for walls, foundations, etc. Unused structures, or those of little value could serve as sources for recycling. The foundation of the incomplete Lodge at Mt. Nebo is an example.

5. Build ramps and walks of stone paving or gravel rather than concrete in the vicinity of historic buildings. Batter stone walls, use horizontal coursing and different size stones with the larger stones predominating at the bottom. If mortar is used rake joints deeply.

6. Acquire equipment that can handle heavy logs and stones safely and minimize the labor necessary for construction and repair.

For trails, roads, and camping or picnic areas, major maintenance problems are drainage, erosion, and soil compaction:

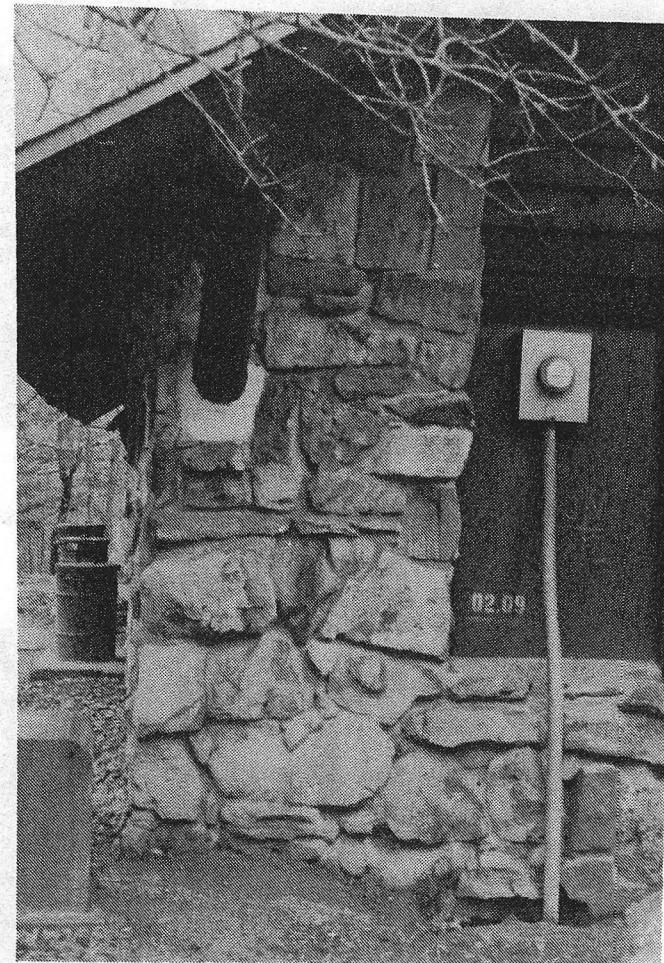
1. Divert water off the trails to minimize erosion.

2. Use the largest rocks possible for trail work, and bury or wedge them among existing rocks. Keep step risers to a 6 inch maximum, however.

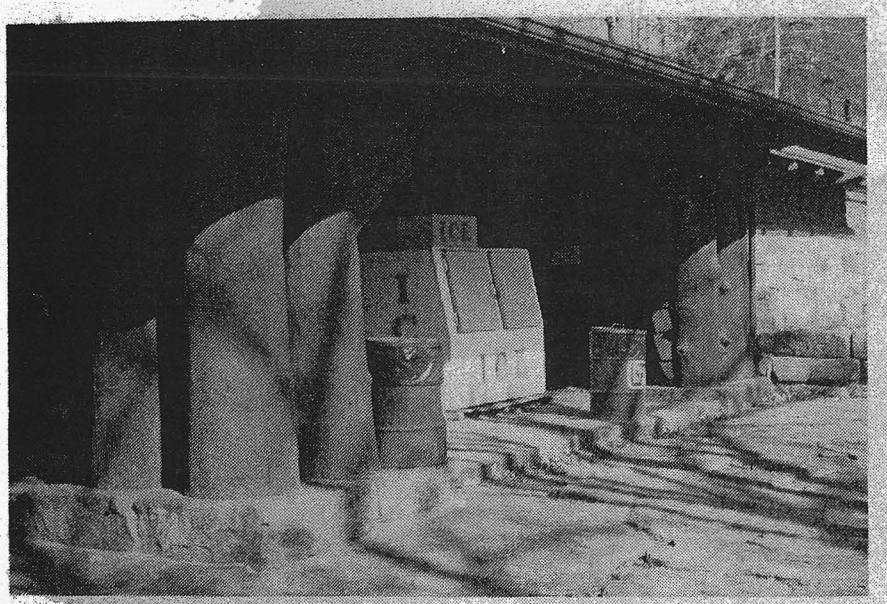
3. Rebuild trail bridges using timber and stone construction.

4. Keep parking in designated areas away from trees to minimize soil compaction and resultant dieback of tree cover.

5. Plant native trees and shrubs. Original planting plans designated dogwood, redbud, wild plum, crataegus (hawthorn), black-haw viburnum, winter huckleberry, buckbrush indian currant and virginia creeper #60



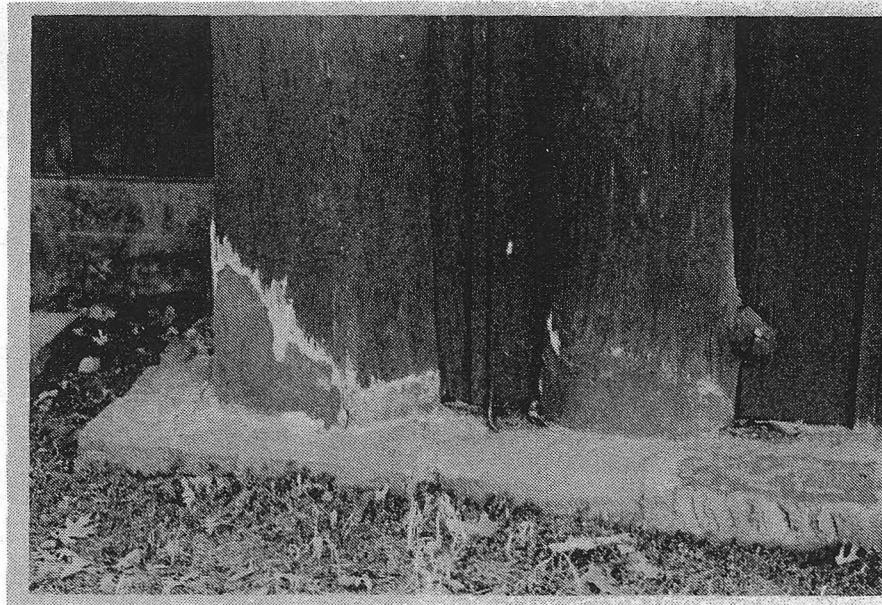
Utility connections which disturb the character of the building, Shelter #1, Petit Jean.



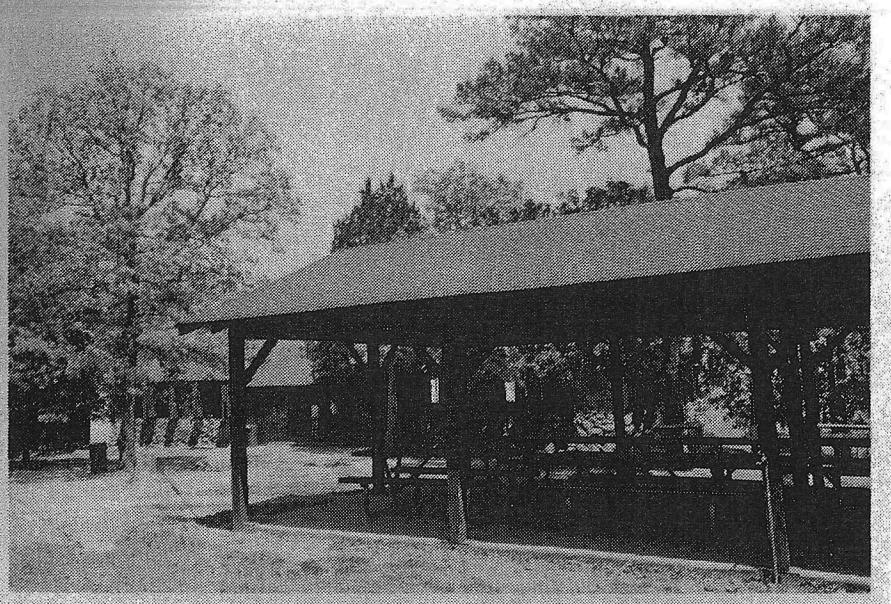
Trash cans and ice chest which distract from the beauty of the architecture,
Community Building, Devil's Den.



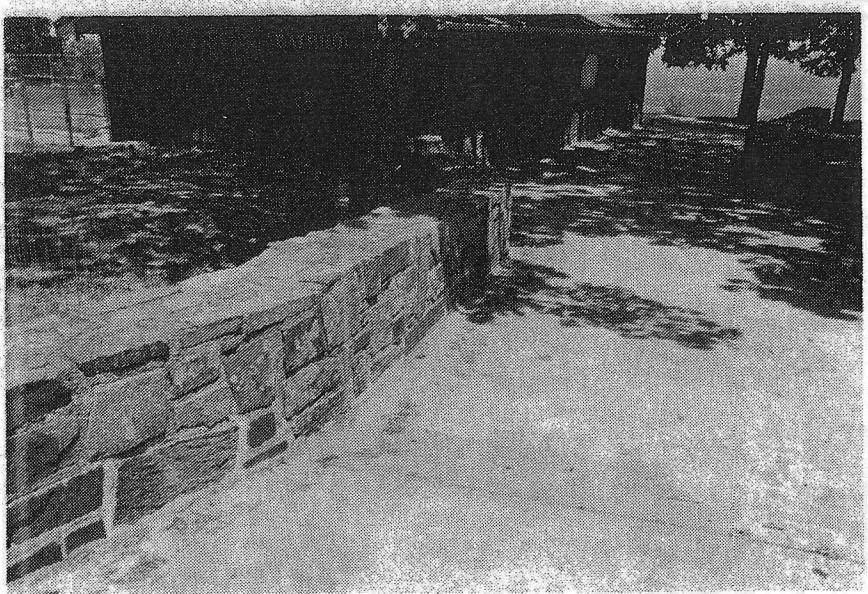
Mather Lodge: the clutter of signs, flags, bulletin boards, and railings.



Repair of decayed logs, Shelter #2, Petit Jean.



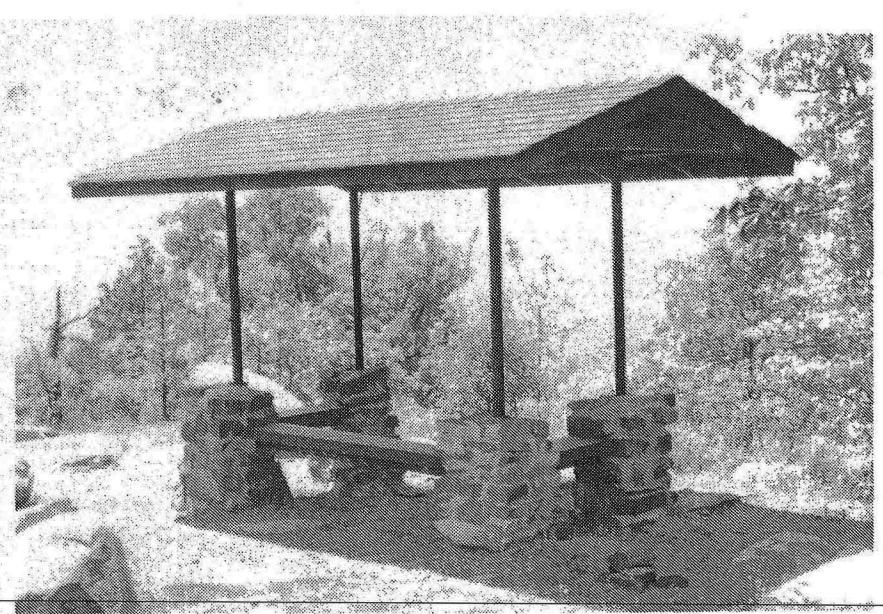
New shelter compared to old (in background). A difference in scale and massing.



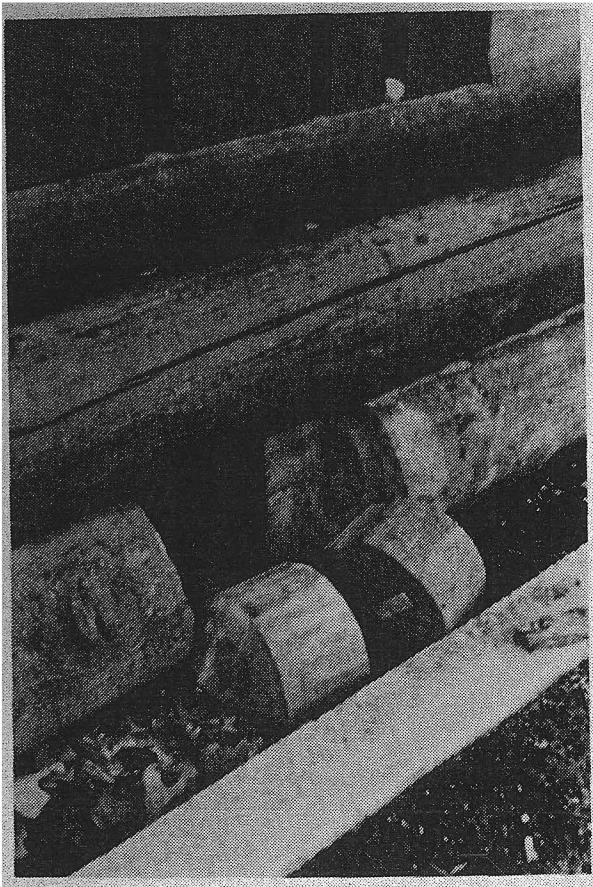
Cut stone wall, a contrast to old stone work. Mt. Nebo bathhouse.



Awkward connection between stone and concrete, Mt. Nebo shelter and bathhouse.



This small shelter looks as though it could blow away in a strong wind. Mt. Nebo.



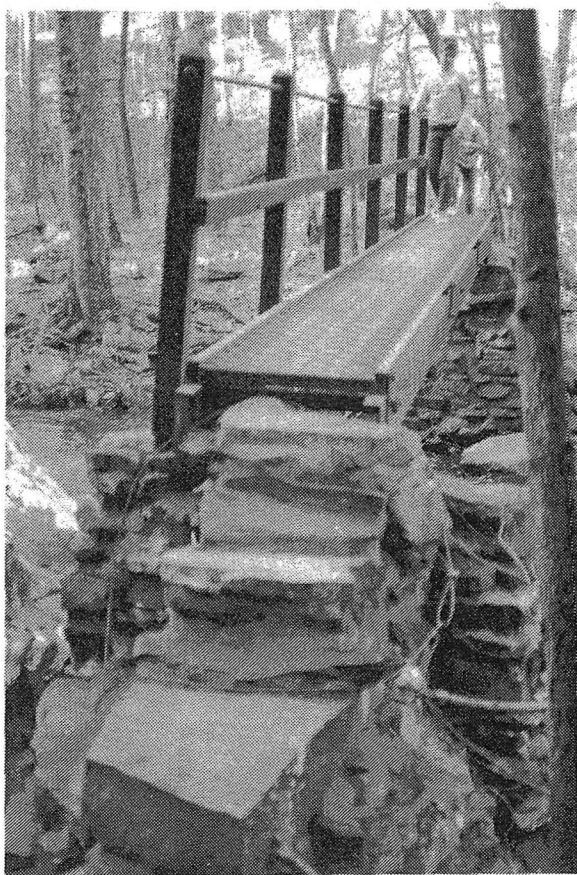
Restoration: replacement of logs which serve as major structural elements,
Mather Lodge, Petit Jean.



Foundation of the incomplete Lodge at Mt. Nebo: a source of stones for reconstruction.



Railroad tie water breaks: buried stones are recommended instead.



Bridge replacement of steel: wood and stone construction is recommended.

NEW STRUCTURES

The addition of new structures has been one of the most difficult problems faced by the park staffs. Materials used have ranged from concrete block and metal staircases and railings to stone and wood which more closely approximate the CCC style. One recent structure with characteristics compatible with its setting and the CCC tradition is the new bathhouse at Petit Jean. An overhanging roof and large rafters create a sense of solidity and shelter. Stonewalls articulate the exterior, and the structure is located in a grove of pine trees. Other structures are not as successful in their relationship to their CCC neighbors. At Mt. Nebo, a new shelter stands on spindly legs next to an original building made of stone walls and large log supports. On the other side, cut stonework and new concrete walkways connect awkwardly with stone paths. A small shelter on a bluff looks as though it could be blown away in a strong wind.

These additions could be improved by:

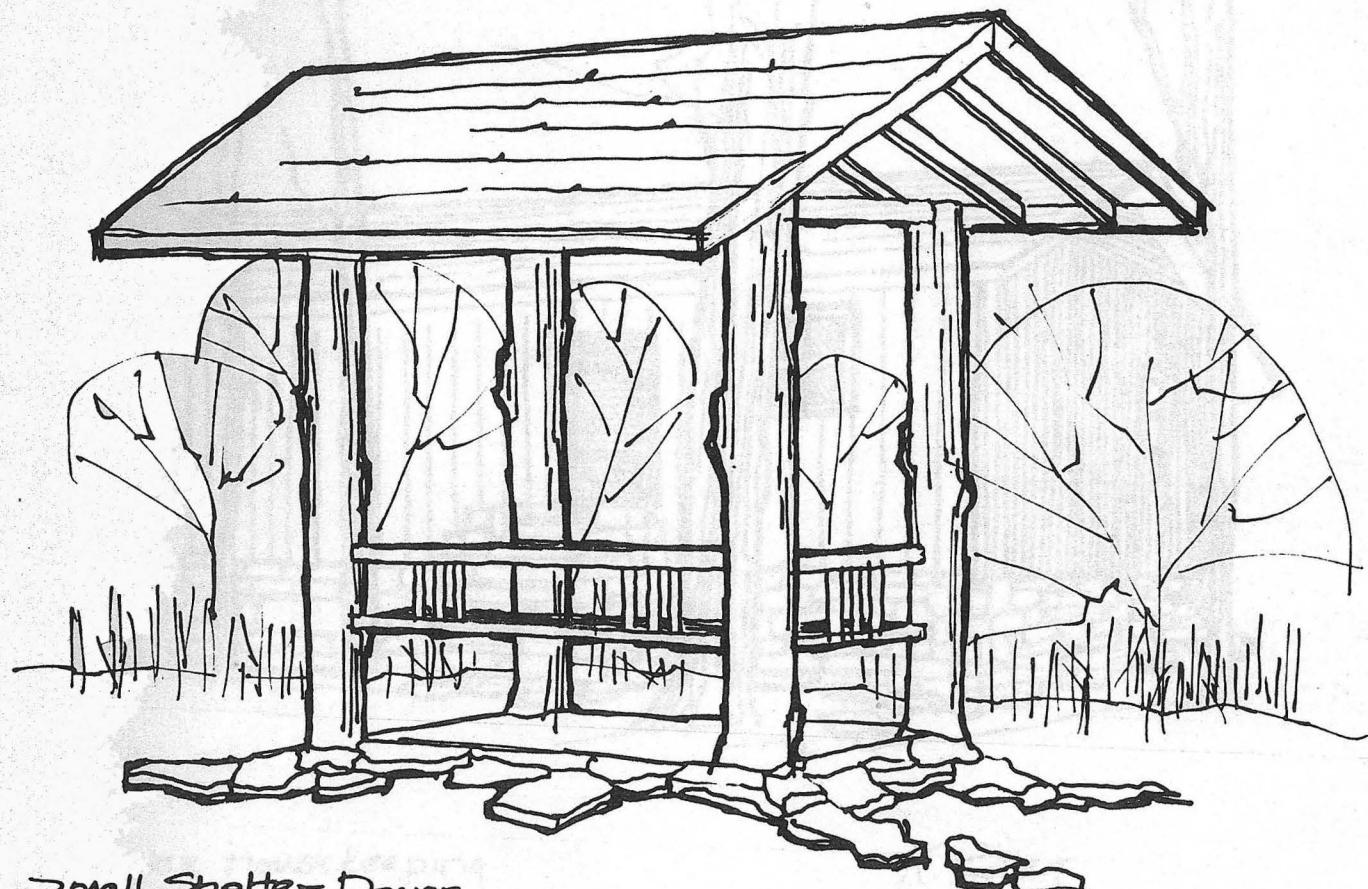
1. Using heavy timber columns, or if these are unavailable, using at least three posts in a cluster in place of a single one.
2. Using steep roofs and adding variety to the shape of the structure.
3. Using the traditional stonework methods.
4. Siting the structure to "fit" or "blend" with the environment by placing it on an outcropping of stone or into a ridge. This emphasis on site or context cannot be overemphasized. The park experience as it was conceived was one that brought landscape and

structures into harmony. Solving an immediate functional problem such as building a parking lot or constructing a swimming area is one thing. Doing it so the result is in consonance with surroundings is quite another.

The use of modern construction methods which are "faked" to look rustic was acceptable to some designers even in the CCC era and is probably as legitimate today as it was then. However, it is well to remember that good design should be the criteria for all decisions related to new construction in the CCC parks. In the hands of a poor designer, even the best materials and workmanship can look ungainly. The log cabin or stone hut in the woods is the stuff of fairy tales, and generates an instant affinity and romantic appeal. One hopes that the sense of quality and "fit" found in the best CCC work can not only be preserved, but can inspire the design of the future park facilities in all the Arkansas parks.



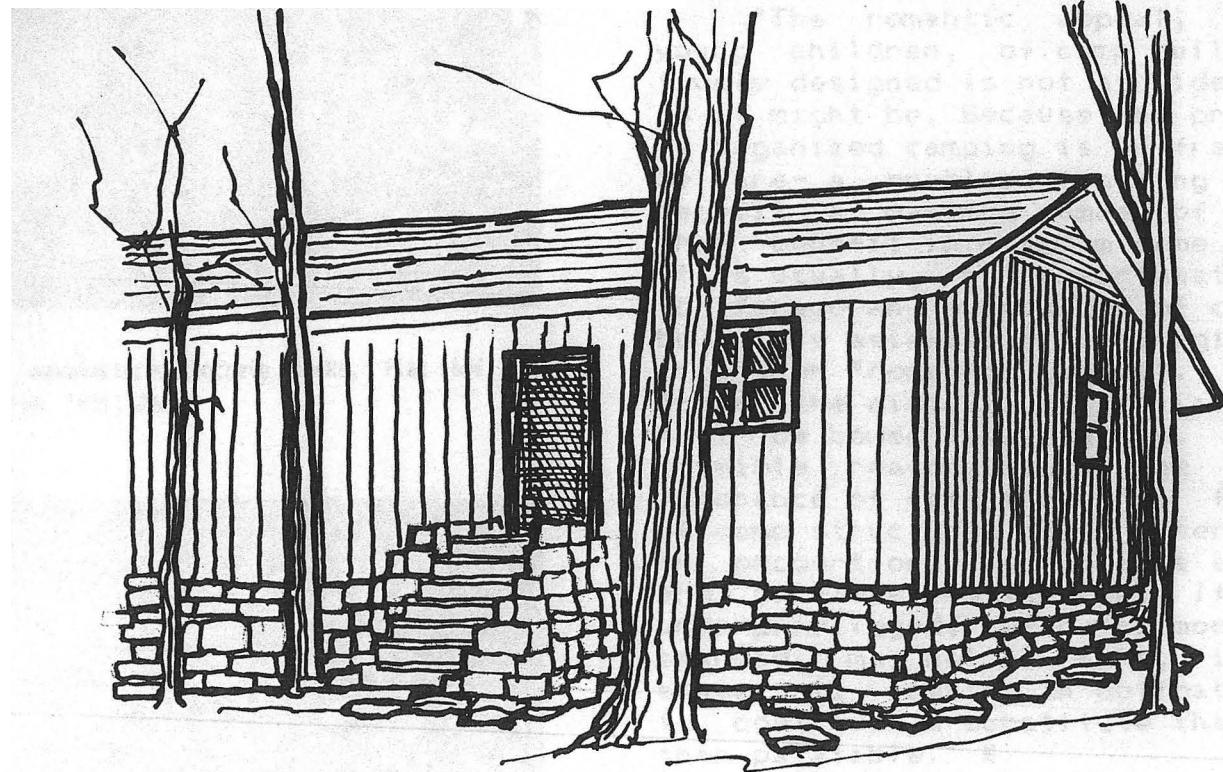
Compatible characteristics in new construction: stone walls, wide overhangs, and a wooded setting. Bathhouse, Petit Jean.



Small Shelter Design
Using CCC scale, materials
& rock work

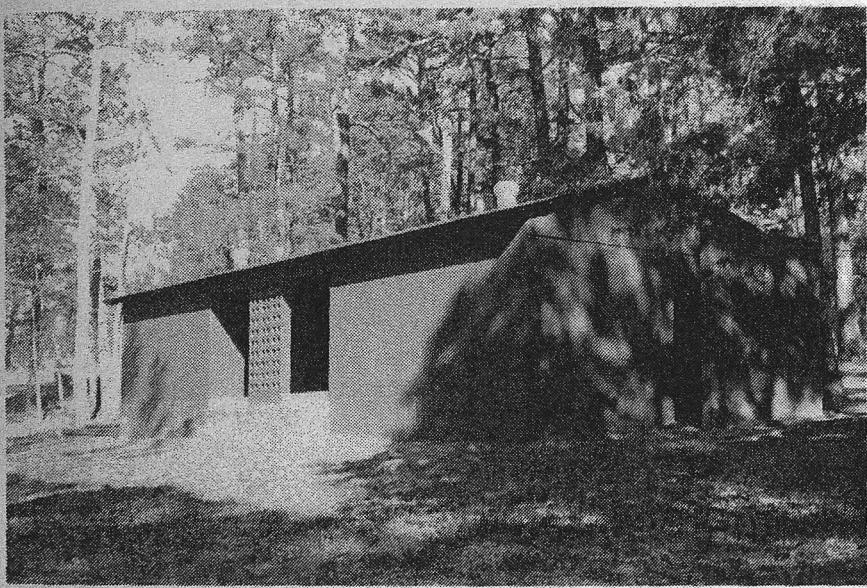
T. Rollot
6/28/89

Redesign. Adding scale and natural materials to pre-existing structures.

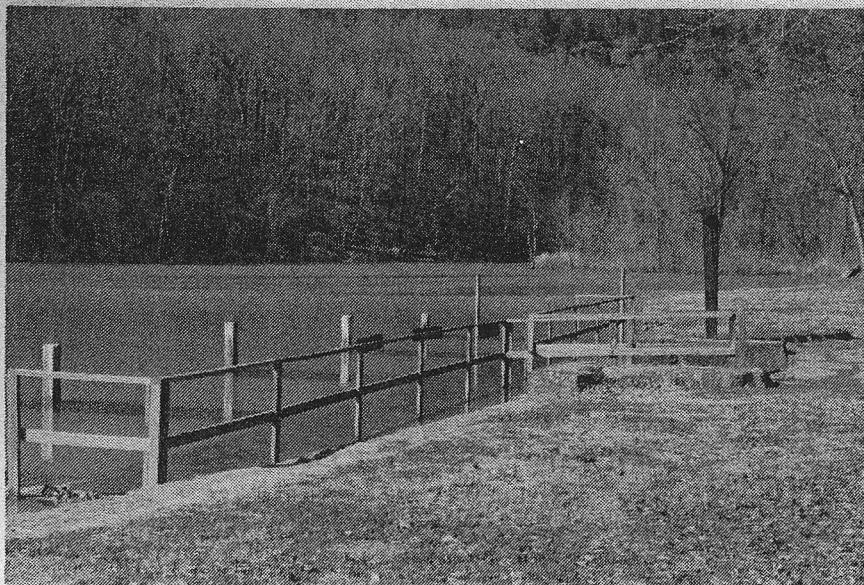


Duplex housekeeping
cabin at Petit Jean
with stone foundation
and stairs added on.

T. Rollert
6/28/89



The antithesis to CCC design: manufactured concrete blocks, flat roof, no relationship to site. Group area, Petit Jean.



Railings look insubstantial and temporary. Lake at Devil's Den.

ECONOMIC CONSTRAINTS AND BEAUTY

"The romantic appeal, especially to young children, of camp buildings imaginatively designed is not as widely acknowledged as it might be. Because the primary objective of organized camping is so frequently social welfare - a problem of making an expenditure benefit a maximum number of persons rather than benefit in maximum some lesser number - it is usually, but unfortunately, necessary to forego any overburden of cost that might be solely assessable to "imagination-stimulation" or "romantic appeal". In such situations the dictates of social consciousness must be bowed to certainly. But there is no possible reason, save the ineptitude and ignorance of camp planners, for the cheapest of camp structures being other than pleasing in proportion, appropriate as to materials, and painless to the eye. If in camps the underprivileged, even the moderately circumstanced, may not eat cake, in an aesthetic sense, it remains an obligation on planners to contrive a substitute that is not less than palatable." *

* "Organized Camp Facilities", reprint from Parks & Recreation Structures, National Park Service, 1938

FOOTNOTES

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12. Ibid, p.11

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22. Paige, op. cit. p.44
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26. Park Structures and Facilities, U.S. Dept. of the Interior, National Park Service, 1935
27. Ibid, Apologia
28. Ibid, Apologia, p.6
29. Ibid, p.6
30. Ibid, p.4
31. Ibid, p.5
32. Ibid, P.4
33. Ibid, p.5
34. Interview with Paul Young, CCC architect at Devil's Den State Park, now living in Fayetteville, AR.

35. Blackman, Arkansas Gazette, 1936, from files of Ben Swadley, Petit Jean Interpreter, p. 8, Blackman was a newspaper reporter and member of the Parks Commission.
36. A letter from Guy Amsler to Ladd Davies, undated, from files of Park interpreter, Petit Jean State Park.
37. The parallel between the Arts and Crafts Movement was suggested by Murray Smart, Dean of the Architecture School, University of Arkansas, and seems worthy of further study.
38. Blackman, M. C. op. cit.
39. Petit Jean Park Master Plan Outline, Feb. 15, 1938.
40. Blackman, M. C., "Park Program for Arkansas Proposed", Arkansas Gazette, Dec 28, 1938.
41. Interview with Ladd Davies by Ben Swadley, Park Interpreter, Petit Jean State Park, Nov. 30, 1988.
42. Park Structures, op. cit. p.189
43. Interview, L. Davies, op. cit.
44. Park Structures, op. cit. p.43
45. Ibid, p.215
46. Ibid, p.216
47. Blackman, Ar. Gaz. 193?
48. Ibid
49. A Report on the Natural Scenery and Park Development Work, Mt. Nebo S.P., Oct. 15, 1935.
50. Park Structures, op. cit. p.44
51. Olmsted, Yosemite Valley & Mariposa Big Trees, op. cit.

52. Park Structures, op. cit. p.37
53. Park Structures, op. cit. p.156
54. Arkansas Gazette, "Tourists Spend More in State," Business Monday", June 19, 1989, p.1C
55. Guidelines for Understanding and Determining Optimum Recreation Carrying Capacity, Urban Research & Development Corp., for U.S. Dept. of the Interior, Bureau of Outdoor Recreation, January 1977, p.I-1
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