

ner aluminum electrodes (0.04 mm thick) and placing a glass microscope slide as a slide cover over a new slide similar to the one described above; the electrodes and the liquid sample were thus enclosed in a thin cell formed by the two glass microscope slides. A somewhat smaller electric field was impressed across the gap on the new slide (500 V across a 1.4-mm gap), which should have resulted in a heat generation rate of only 0.26 W/cm³ between the electrodes.

Again, over a period of time, particles collected at both the anode and the cathode, and spikes formed on the anode. In addition, the orientation of elongated particles parallel to the electric field was more pronounced than with the previous slide.

COMMENTS

The results observed in these experiments are qualitatively similar to results reported by Hedrick et al. for pulverized coal. One would expect that some of

the particles in the tests reported here would exhibit behavior similar to those particles in Hedrick's tests, since the origin of the material for both tests is similar (pulverized coal), and since some of the material from the SRC product (the mineral matter) should not have been chemically different from material in the tests of Hedrick et al.

The results reported here are not conclusive. They are, however, in agreement with expectations if one assumes that particles in the field carried both positive and negative charges. Because the particles do not agglomerate spontaneously, it may be that these charges are induced by the applied field.

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THE YOUTH CONSERVATION CORPS AT THE WARNER PARKS, NASHVILLE, TENNESSEE

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ABSTRACT

The Youth Conservation Corps (YCC) is the modern counterpart of the Civilian Conservation Corps created in the 1930's. The YCC provides employment of young people and advocates environmental education and conservation practices. Such a program has been in operation at the Warner Parks in Nashville, Tennessee for several years and has involved young men and women in the preservation and enhancement of our parks and natural resources.

BACKGROUND

The concept of the Youth Conservation Corps (YCC) emerged in 1934 when the Civilian Conservation Corps (CCC) camps were established "to take natural lands and start them on the way toward producing the greatest good to the greatest number of people." Reelfoot Lake, Pickett State Forest and the State Game Preserve in Lawrence County were among the sites chosen in Tennessee. A summary of the activities in Tennessee, according to the departments under which they served, follows:

Tennessee State Division of Forestry

Eight CCC camps for forest fire control were responsible for the construction of lookout towers with living quarters. Nearly 1,500 miles of telephone lines were constructed along

with truck trails, horse trails and ridge road improvements.

Twelve camps did erosion control work in West Tennessee. Eroded areas were prepared for planting and brush dams constructed to check washing. A 100-acre nursery for kudzu and black locust seedlings was established.

The first State Forests in Tennessee were created in Pickett, Morgan and Bledsoe Counties (27,000 acres). A total of four CCC camps were located and provided trails, roads, caretakers residences and out-buildings, dams, planting of feeding grounds for game, shelters and camps for public use, accurate mapping of forests and natural feature preservation.

A CCC camp began operation at Reelfoot Lake in the fall of 1934 to develop recreational and natural features. A similar camp was established in Lawrence County.

U.S. Forestry Service

CCC camps were set up for forest fire control work (500,000 acres of National Forests at that time), development of fish and game populations, construction of roads and trails, making improvement cuttings in the forest, planting trees and development of recreational facilities.

TVA

The CCC conducted erosion control work.

National Park Service

Roads and trails. Forest fire control improvement and development of recreational facilities and wildlife populations were accomplished in the Great Smoky Mountain, Chickamauga and Shilo National Parks. (Peterson, 1935)

THE YCC PROGRAM

Public Law 93-408 established within the Departments of the Interior and Agriculture a program titled the Youth Conservation Corps and provided for a grant program to state for YCC projects on non-federal public lands and waters. The purpose of the YCC

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is to further the development and maintenance of the natural resources of the U.S. by offering employment to young people (ages 15-18) on conservation projects in a healthful outdoor atmosphere. The YCC offers a unique opportunity for understanding of the nation's natural resources and heritage.

The YCC campsites and non-residential facilities are selected on the basis of two categories; 1) the availability of existing facilities that can be readied for YCC occupancy with a minimum financial expenditure and 2) the potential of the area for further development.

The adult supervisory personnel for the projects are selected from federal and state personnel already employed, personnel hired for special temporary appointments, and personnel hired directly by state, local or private agencies.

The imagination and enthusiasm of the Corpsmembers has furthered such activities as clearing trails, improving animal habitats, controlling erosion, building facilities, serving fish hatchery duty and planting trees. It should be noted that Corpsmembers are strictly forbidden to be exposed to hazardous duty and that safety is stressed at all times. The work projects are devised and implemented in such a way as to ensure that the young members will obtain a variety of conservation experiences, an understanding of the task and its importance to the area, and an appreciation of the environmental impact of the task.

The work program is facilitated by the environmental experiences, and in that respect differs from the focus of the "typical" summer camp. Imaginative approaches are encouraged to bring out the best in Corpsmembers and to accomplish the objectives basic to the program. Daily rate of pay is dependent on the type of camp. Weekly activities consist of five eight-hour days; members are paid for 30 hours per week, and 10 hours are devoted to environmental awareness activities.

State recruiters receive and process YCC applications and select members on the basis of locale with equitable selection from all economic, racial and social backgrounds.

YCC IN TENNESSEE

The Tennessee residential camps have members on duty 24 hours a day for the length of employment. When participants are not engaged on work projects, there are structured recreational and educational activities. Meals and residence in a dormitory are provided. Most of the residential camps are in isolated areas and therefore have mainly camp-oriented activities.

The non-residential camps have working hours from 8:00 a.m. to 4:00 p.m., with the educational aspects integrated into the framework. No weekend work is scheduled except for overnight backpacking or field trips.

YCC in Tennessee is still a small program which allows only a limited number of participants. Despite this fact, the Tennessee Corps offers experiences in education that cannot be offered in ordinary classrooms. In the field, the members are exposed to mat-

ters of environmental concern with project leaders who are qualified to teach the aspects of conservation and ecology. Tests done by the University of Michigan with a YCC program found that an eight-week summer resulted in the same amount of learning as a full year of high school biology.

THE NASHVILLE YCC

The Nashville, Tennessee YCC currently operates on a non-residential basis in the Percy and Edwin Warner Parks (2,700 acres) on Highway 100, seven miles southwest of Nashville. The camp has been in operation since 1974, with usually 20 youths of both sexes participating. The camp headquarters is located at the Warner Nature Center in Edwin Warner Park. Corpsmembers are recruited, screened and selected by the Tennessee Department of Education and represent a cross section of eligible youth from the city of Nashville and Davidson County.

Some of the projects in operation are the re-



FIG. 1: Two YCC members preparing a foot trail through the wooded section of Edwin Warner Park.

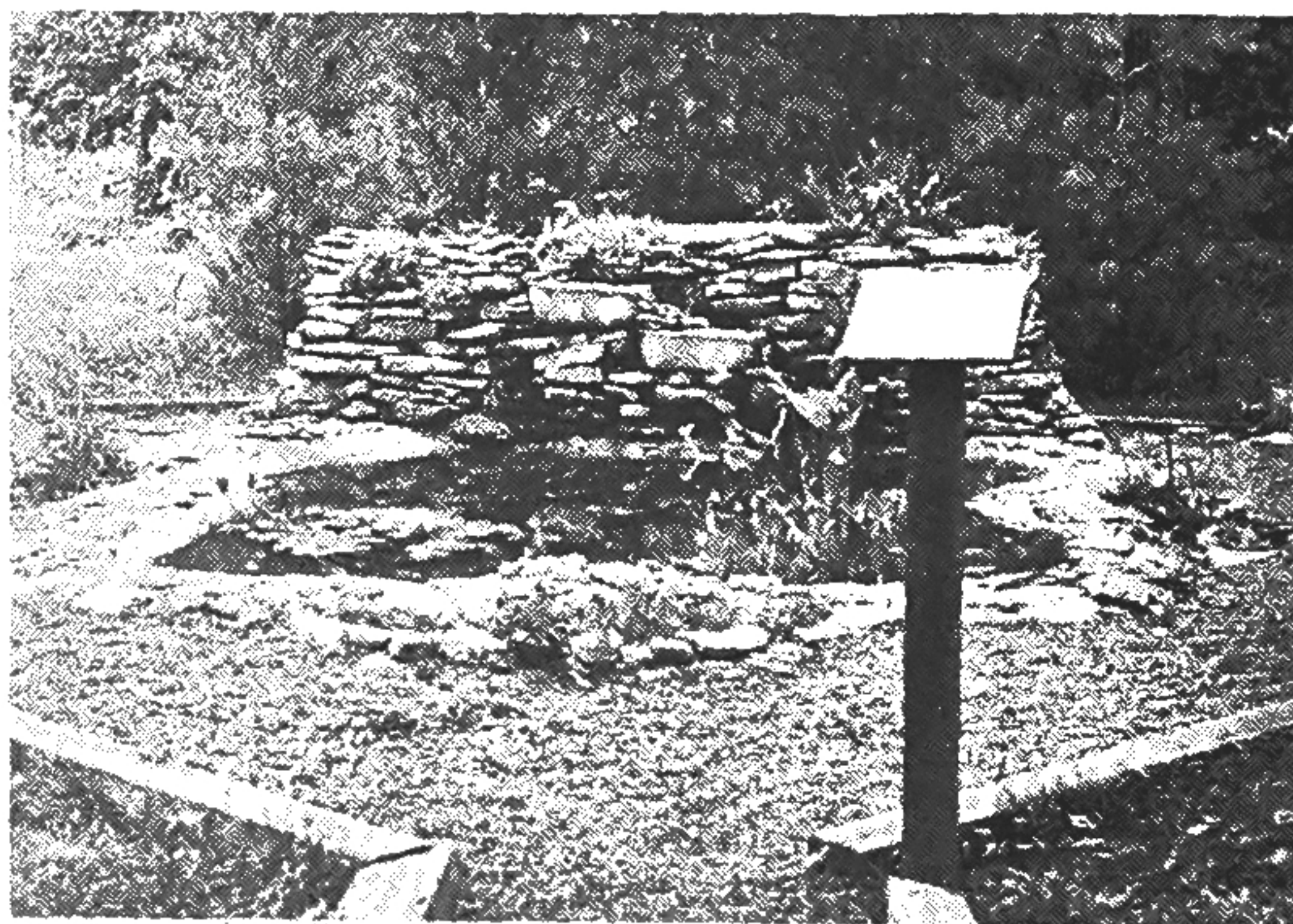


FIG. 2: Aquatic plant area and fish pool constructed by YCC members at the Nature Center.

pair of hiking and horse trails, log amphitheater construction, wildlife habitat improvements, wooden information signs, planting and maintenance of an organic garden and erosion control. Positioned around the Nature Center are trails devoted to natural interpretation and areas for nature study, such as glass covered bee hives and aquatic plant areas. These features are utilized for programs given to small children during summer day camp in the park. The Corpsmembers have prepared information pamphlets on nature study, wildflowers and scenic areas to augment this work.

The activities for the 1976 YCC work projects and Environmental Education Itinerary are listed in Tables 1 and 2, respectively. Figs. 1-5 show typical activities of the YCC and the Warner Nature Center.

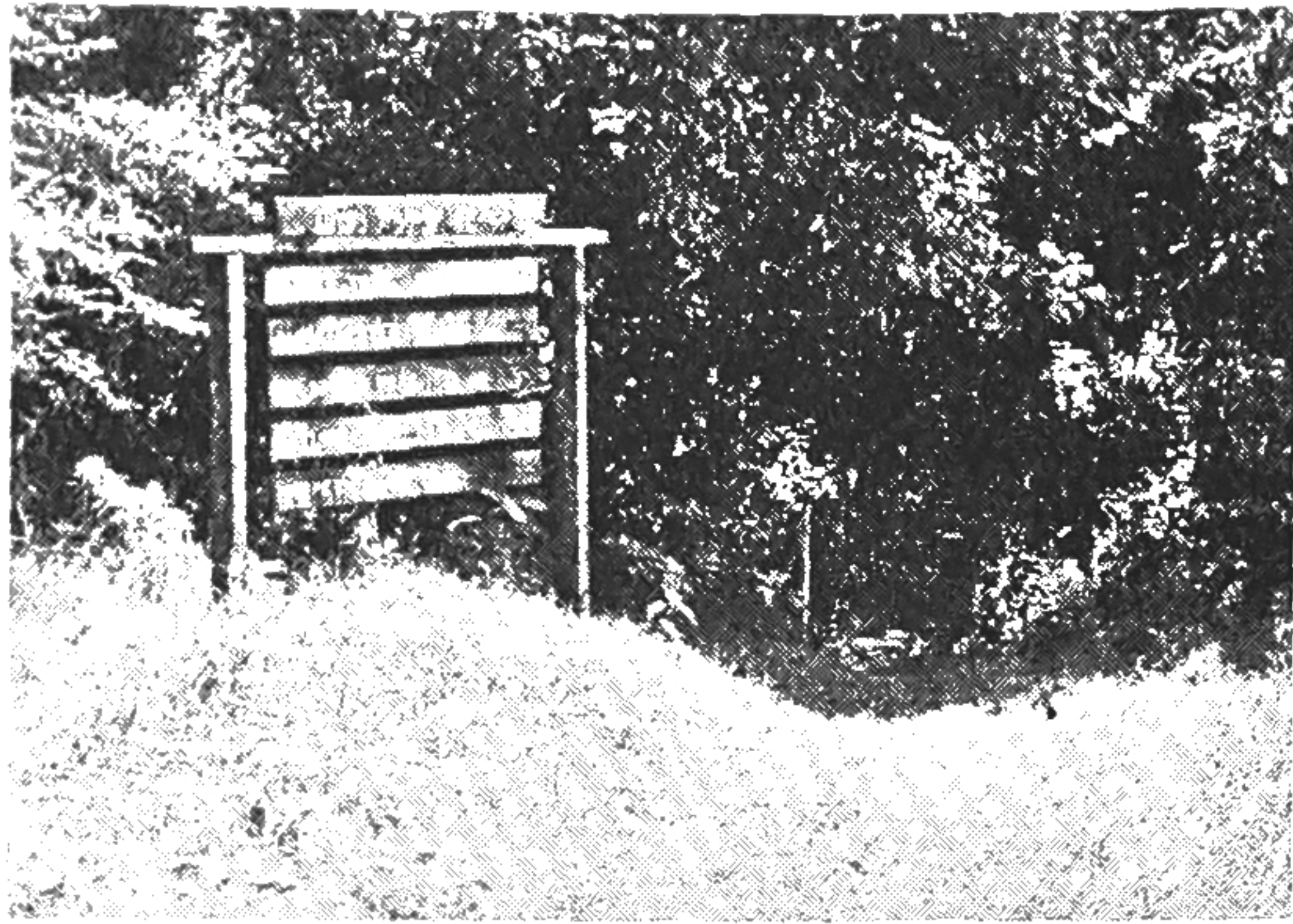


FIG. 3: Foot trail signpost built by YCC members in 1975.

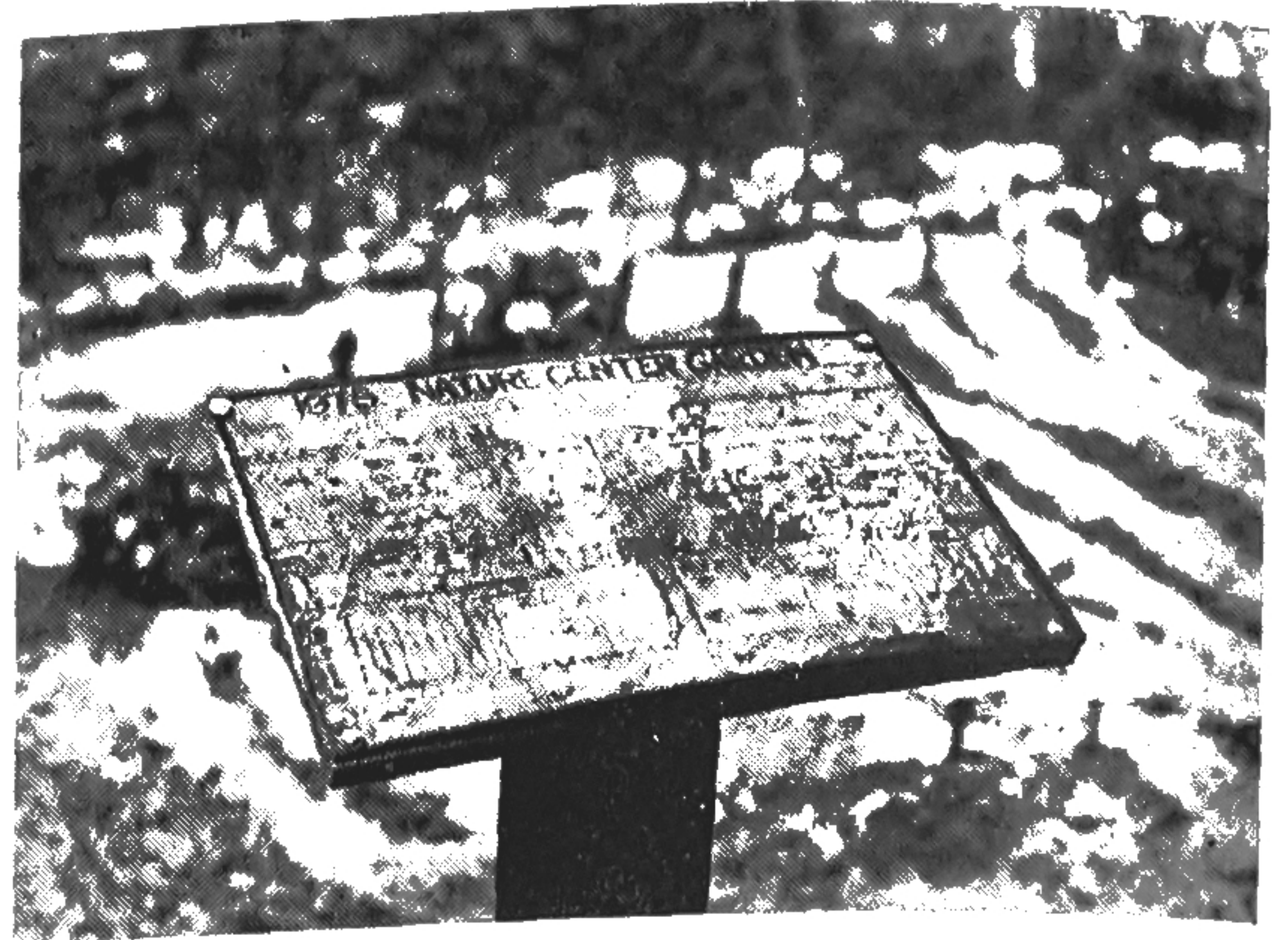


FIG. 4: Nature Center organic garden information post.

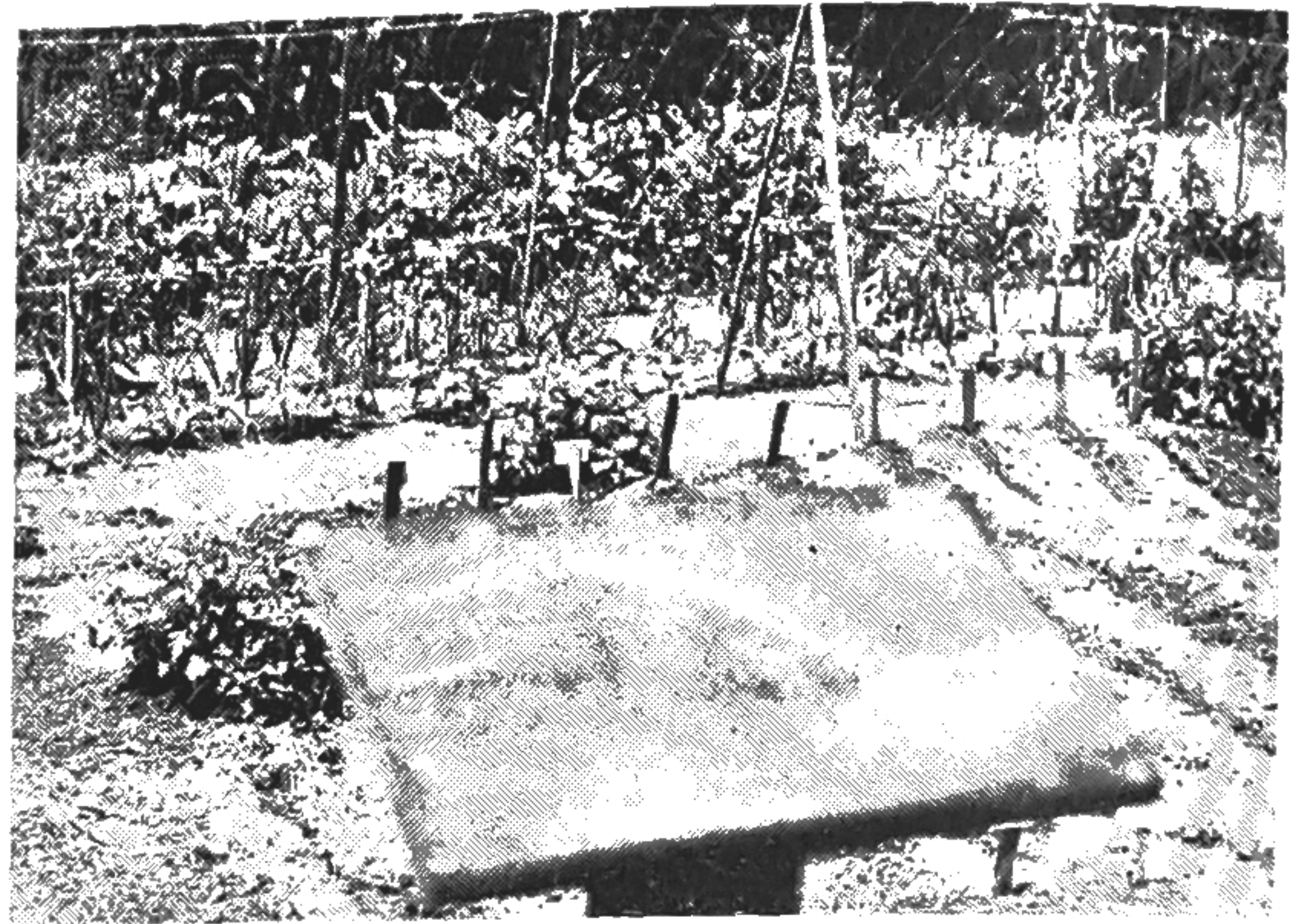


FIG. 5: Partial view of the organic garden planted and cultivated by YCC members at the Nature Center.

TABLE 1: YCC Work Project List for 1976

GROUP	TRAIL WORK	EE & INTERPRETIVE	CONSERVATION	GENERAL
Annell's	Children's Trail Renovation	CCC Trail Head Sign Lea's Summit Inter.		Hedges at Dog Pen
Donald's	Nature Loop Repair	Interpretive Signs Scout Trail booklet	Remove Outhouses	
Gordon's	Owl Hollow Repair	Overlook Renovation	Car Removal	
Suzie's	Harpeth River Return Loop	Indoor diorama Quarry Booklet and Sign	Bird Blind Landscaping	
ALL	Harpeth River Trail Renovation CCC Trail Renovation	Organic Garden	Food Plot Planting Vaughn's Creek and Harpeth River Clean-up Recycling Program	Concrete Barn and Walkway Clean Sleeping Bags

TABLE 2: YCC Environmental Education Itinerary

Date	Event	Materials Needed
June 14	Enrollee Orientation Environmental Ed. Pre-test	EE folder—orientation sheet, first aid and safety sheets
June 16	Slide show and lecture on Tenn. Environmental Heritage (Mack Pritchard, Tenn. Dept. of Conservation)	
June 18	Harpeth Narrows field trip—Geology, field studies, cycles of erosion, stream & valley development, environments of deposition (Dave and Tom)	EE folder—Geology handbook pp 46-66
June 22	Field trip to Children's Museum—Tennessee Wildlife (Carol Keaton)	EE folder—Wildlife handbook pp 27-45
June 23	Ecology lecture (Dave and Tom)	EE folder—Ecology
June 24	Backpacking demonstration and lecture (Dave and Tom)	EE folder—camping manners and backpacking checklist
June 25-26	Montgomery Bell overnight—Group discussions: Alternatives to Pesticides & Water Pollution	See your group leader for instructions
June 29	Field trip—Tennessee Botanical Gardens, lecture on plant communities and tour (Randall Lantz)	Handbook pp 67-97
July 9-10	Fiery Gizzard overnight (Grundy State Forest) and area clean-up Group discussions: Bio-magnification and What does a tree do?	See your group leader for instructions
July 19	Slide show and lecture on Water Pollution (Dr. David Wilson, Vanderbilt University)	Handbook pp 46-68 EE folder—Ecology of Streams and Ponds
July 21	Field trip—Ellington Ag. Center Land use planning and lecture by state apiarist (Tom Hart)	Handbook pp 1-26
July 29- Aug. 1	Great Smoky Mtn. Natl. Park camp out and tour of Tremont EE center	This trip is optional and is dependent on completion of assigned work projects
Aug. 2	Environmental Ed. Post-test	

DISCUSSION

The YCC serves the public just as the CCC did during the 1930's, but with important extra capabilities. Not only are the Corpsmembers receiving payment for valuable conservation work, but also they are actively involved in preserving the natural resources that will be enjoyed by future generations.

ACKNOWLEDGMENT

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For further information and applications, contact: YCC

State Recruiter, 11 Cordell Hull Building, Nashville, Tennessee 37219 or Nashville Youth Conservation Corps, Warner Nature Center, Edwin Warner Park, Highway 100, Nashville, Tennessee 37221.

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