

The new Corps

The Army Corps of Engineers, arch villain of conservationists, is changing its spots

by Christopher Weathersbee

In days gone by, when the United States Army Corps of Engineers hove into view to build a dam, townspeople turned out to cheer progress and the ascendancy of man over his environment. Dams showed up in the school-books as ramparts of the good life.

More recently dams have become commonplace, and increasingly they are pictured as blocks to the rhythmic flow of life. The Army Engineers' image has faded. The townspeople who turn out at dam dedications today are most often irate members of conservation groups who come to boo.

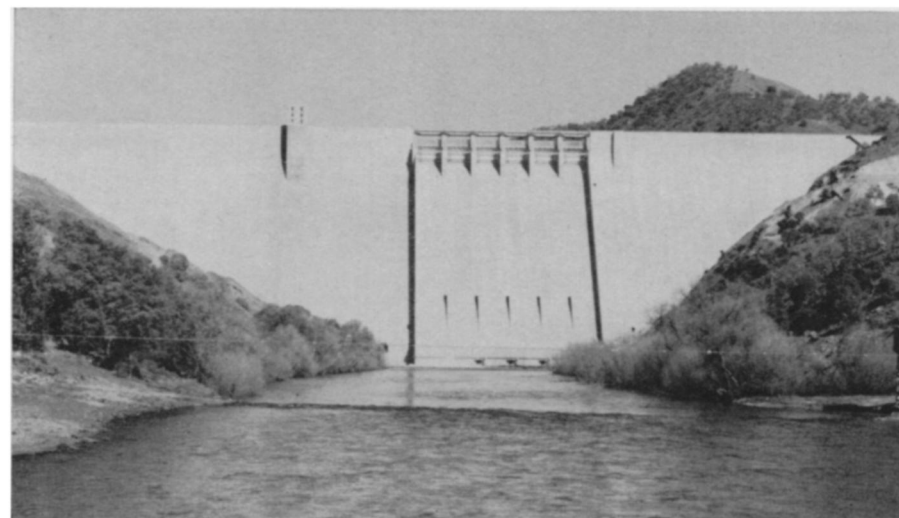
Probably because of its visibility as an organization and because of a certain bureaucratic insensitivity, the Corps is one of the favorite objects of scorn of a growing segment of the public which is desperate over the careless exploitation of natural resources.

Now the scorn, oddly, is producing a renaissance in the Corps, a renaissance which incidentally has left many of the scorners in the position of critics who don't have constructive alternatives.

The Corps and conservationists collide in the Civil Works Program. This has the basic justifications of flood control and the provision of navigable rivers and harbors. By-products are municipal water supplies, hydroelectric power and recreation.

The complaint most often leveled against the Corps is that its planners and engineers pursue the immediate dollar benefits of a project without considering the project's long-run impact on the environment; further, that it is almost a foregone conclusion that when the Corps is called in it will recommend building something over leaving things alone.

The Corps has earned such a reputation. It took, for instance, a national outcry to get a commitment from the Corps to supply a minimum amount of Lake Okechobee water annually to the



University of Wisconsin
Landscape architect Lewis with maps of landforms.

Dept. of the Army
Corps dam in California controls floods, stores water, but at a price.

Everglades National Park. The big swamp was on the verge of destruction due to drought in 1967, and the Army then was accused of catering to the water needs of Dade County and commercial development interests at the expense of the Everglades wildlife.

Now, there is a force for renewal. In April, for instance, the Corps sent around a circular to its planners and engineers calling for the unprecedented consideration of non-construction alternatives in flood control planning. This is about the equivalent of asking someone to enumerate reasons why what he does for a living is unnecessary.

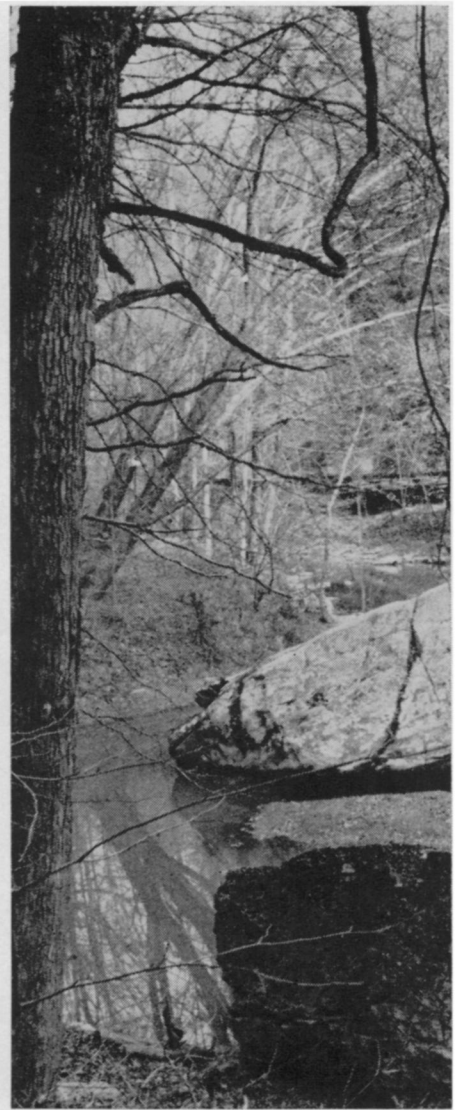
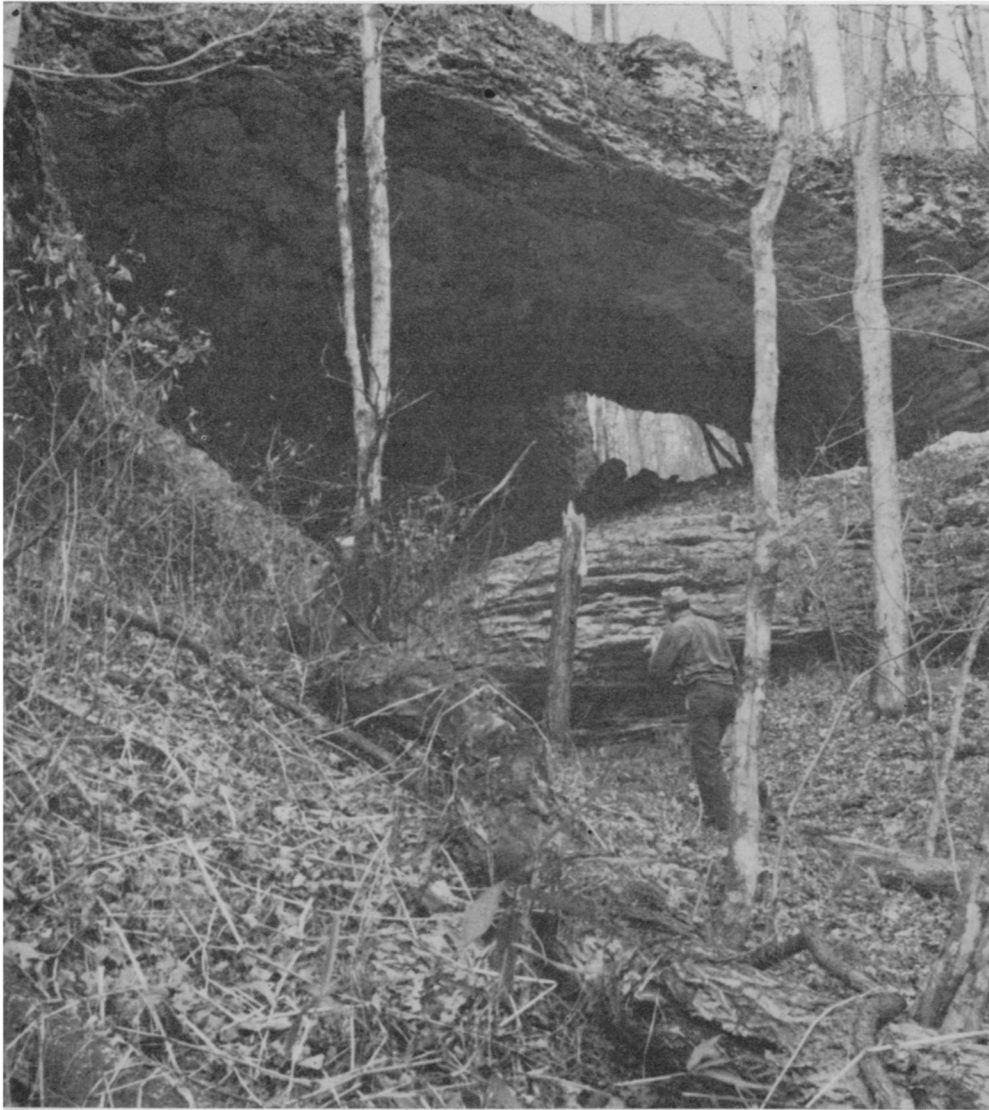
The circular may have been motivated by more than the conservation ethic alone. The traditional, structural approach to flood control that the Army has taken has been to find out where the flood water may come from, then build a barrier. Yet despite billions spent on these dams, annual flood losses continue to rise. It is apparent that, at best, dams are only half an answer.

A better answer, for example, might

lie in simple zoning controls to keep construction off areas likely to be flooded—while preserving the flood plain as a park or farming area where little would be lost irretrievably in the event of a flood.

The problem is that as soon as the engineers build one of their barriers, people assume once-threatened land now is safe, and they go and develop it. Yet the dams are designed to control only the everyday sort of disaster. When something unusual comes along, they prove insufficient.

The changing winds within the Corps first became noticeable more than two years ago when the agency, along with most of the rest of the Government, was required to state its objectives formally and explicitly. National economic efficiency, a project's net dollar benefits to the nation, traditionally has been the Corps' only objective. It was decided to make environmental quality, including both esthetic and ecological considerations, an additional primary objective.



Photos: Courier-Journal/Louisville Times

Kentucky's Red River Gorge is threatened by a Corps dam stalled in Congress only at the last minute.

It is a long way from a high-sounding statement of an ideal to implementation in the field by people set in their ways. Many Corps projects still are being pushed without even much lip-service being paid to environmental quality. A proposal for a dam on Virginia's Rappahannock River, for example, still is being pushed, even though high Corps officials themselves refer to the project as a vestige of the days when dams were put up without coordinated regional planning.

The Rappahannock dam first was proposed in 1946, after a 1942 flood damaged Fredericksburg. The cost of the dam was not justifiable then in terms of hydroelectric power and flood control. After intermittent interest over the years the dam was proposed again in 1965. This time annual dollar benefits were said to exceed annual costs by 2 to 1.

However, some 40 percent of the annual benefits are attributed to recreational use of the reservoir. This would be flat water boating mainly, for which

there is ample opportunity in the nearby Potomac River, Chesapeake Bay, and a Virginia Electric and Power Co. reservoir.

There is considerable doubt that the dam's hydroelectric power and water storage capacity are needed at present, or that salinity control for the benefit of oyster farmers downstream justifies flooding many thousands of acres of prime farmland upstream.

In assessing the value of the reservoir's recreational opportunity, furthermore, the Department of Interior's Bureau of Outdoor Recreation attached practically no value at all to the Rappahannock as it is now. Yet the river is one of the most popular canoeing and bass fishing streams in Virginia; it passes through near wilderness and through historic areas, and it is less than an hour's drive from Washington, D.C.

The Rappahannock was originally proposed for inclusion in the Wild and Scenic Rivers Act, but was cut out before the measure passed. Currently

the state of Virginia is considering the river for inclusion in its own proposed scenic rivers program.

As part of an effort to re-educate its personnel to avoid the kind of thinking that went into the Rappahannock report, the Corps recently has held four short courses which dealt in large part with environmental resource analysis. They have been attended by the top civilian planners and construction chiefs in the Corps.

An additional course will be held for all division and district engineers, the top military personnel in the Civil Works Program. The courses are being conducted by Stanford University, the University of Wisconsin and Cornell.

The courses attempt a rational discussion of factors for preservation compared with factors for development of an area. They touch on esthetic values in water resource planning and on the responsibilities of the Corps in protecting and improving ecological values.

The reaction of many of those attending the courses is that for the first

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. . . the changing corps

time they have heard the voice of conservationists not raised in anger. They say they begin to get an idea of what the other side is talking about. But what they continue to miss is a price tag on environmental quality objectives so that they can work with them.

It appears, in fact, that the sudden transience of the Corps has caught conservationists napping. The Corps now professes willingness to consider the environment, yet it asks for some quantitative way to measure the value of various components that make up the environment.

The engineers at present are left with cold figures very attractive to some one or two Congressmen, versus generalized statements of intangibles that few have the time to listen to.

Many things desirable of preservation, the Corps admits, cannot be price-tagged. But it insists on some better system for evaluating environmental intangibles opposed to economic tangibles. While this used to be the excuse behind which the Corps often hid in opting for the dollar, it now is clear that a sympathetic Corps leadership finds it a stumbling block.

As an indication that the sympathy is there, in 1967, Lt. Gen. William F. Cassidy, chief of engineers, and Brig. Gen. Harry Woodbury, then director of civil works, overrode the inclinations of their staffs and attended the annual meeting of the Thorne Ecological Foundation.

The two fielded questions and accusations from the assembled conservationists, and they delivered their own message: Before the Corps can do much but make promises, ecologists and conservationists will have to define and evaluate their properties.

As a further indication of sincerity the Corps commissioned Irving Zube, director of the landscape architecture department of the University of Massachusetts, to develop a classification system for various types of scenery, or landforms, and to inventory Eastern landforms.

The Corps also is promoting work by Prof. Philip H. Lewis of the University of Wisconsin. Lewis has developed the idea of the environment corridor. This is an area which, judged by over 200 criteria, is valuable as a recreational or scientific resource the way it is. Areas outside the corridor, less favored by nature or already spoiled by man, are more conducive to further development. Still lacking is a dollar value, but at least Lewis' concept provides an anatomy of the natural environment—and a possible compromise between environmentalists and the engineers. ◇

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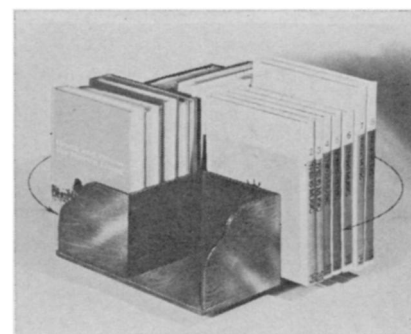
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