

TVA

THE
TENNESSEE
VALLEY
AUTHORITY

A Study in Public Administration

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CHAPEL HILL - 1943

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TO MY MOTHER AND FATHER

Preface

ANY PERSON who undertakes to write about the Tennessee Valley Authority is in the position of the fabled blind man before an elephant. Although it is a single government institution, and only in its tenth year, the activities of the T.V.A. have been so diverse, its implications so far-reaching, its methods so novel, and its goals so challenging, that the task of appraisal and description is one of large proportions. The present study attempts only such part of that task as is within the author's grasp. His approach to the T.V.A. is primarily that of a student of public administration who finds concentrated in this public agency more of valuable administrative history and experience than has accumulated during the longer lives of dozens of more prosaic government departments and bureaus. The purpose of this book is, so far as may be possible within a reasonable compass, to tell that history and analyze that experience.

This concentration upon the administrative aspects of the T.V.A. does not mean that the author has no concern for the purposes of the Authority's program or the social and economic effects of its activities. Indeed, the limits of the study have been purposely, and of necessity, drawn to include some consideration of these matters, for to an unusual degree the T.V.A. has sought to develop methods of administration suited to its larger purposes. To understand T.V.A. administration it is necessary to understand the T.V.A. program, and a section of this book is devoted to each of those subjects. It has not, however, been possible to attempt any real appraisal of the effect of the Authority's program upon the economic and social life of the Tennessee Valley, a subject which would re-

quire another book for adequate consideration. The best description of what the T.V.A. has meant in terms of effect upon people and ways of life is found in the excellent volume by Willson Whitman entitled *God's Valley*, published in 1939. The present author recommends that book as a supplement, or perhaps as an antidote, to this work.

Limitation of this study largely to the administrative features of the T.V.A. experience calls for no apology. In the midst of a world struggle whose outcome will be determined in large part by relative efficiency of the various governments in organization and utilization of their resources, the vital importance of effective public administration becomes too obvious to need underlining. Thirty years ago Brooks Adams said: "It is in dealing with administration, as I apprehend, that civilizations have usually, though not always, broken down, for it has been on administrative difficulties that revolutions have for the most part supervened." Naturally a study of T.V.A. administration is not going to reveal how to win the war or stop civilizations from crumbling. But the contribution of the T.V.A. to the developing art of public administration is by no means an inconsiderable one, and it deserves the closest attention of thoughtful citizens who realize that an honest, enlightened, and imaginative public service is under modern conditions essential to national existence.

It would be disingenuous for the author to pretend that he has no biases in connection with the T.V.A. The example set by Vernon Parrington in frankly confessing that his great *Main Currents in American Thought* was written from the standpoint of a Jeffersonian liberal is a good one. The present author readily admits to a bias in favor of the T.V.A. and what it has done. He does not consider that one need be a disciple of Karl Marx or even of Norman Thomas to hold that the natural resources of our great rivers should be developed by and in the interests of the people. He does not feel that government ownership and operation of public utilities is a death blow to the profit system. He feels that the world-wide trend toward statism, which has been greatly accelerated by the necessities of the

present world catastrophe, must be resisted and kept within definite limits in the United States if we are to remain a free and democratic nation. But in his judgment public operation of power monopolies falls well within those limits, and he is quite willing to compare the democracy of the T.V.A. with that of the Commonwealth & Southern Corporation.

In the preparation of this study the author has had the invaluable advice and encouragement of his chief, Leonard D. White, chairman of the administrative committee of the Political Science Department at the University of Chicago, for which he wishes to express the deepest appreciation. An earlier study of the T.V.A. was prepared by the author as a doctoral dissertation under the supervision of Marshall E. Dimock, formerly associate professor of political science at the University of Chicago, later Second Assistant Secretary of Labor, and now with the War Shipping Administration. The author's obligations to Marshall Dimock are many. He is also indebted to Charles E. Merriam for years of encouragement and guidance, and it was in a Merriam seminar that the author's interest in government corporations first took form.

The author wishes especially to acknowledge the assistance he has received from Gordon R. Clapp, general manager of the T.V.A., and from many other officials and employees of the Authority, past and present, of which the following is only a partial list: Frank J. Carr, Paul Ager, Edwin Lamke, Paul David, Glenn Smith, George Gant, Arthur S. Jandrey, Richard Niehoff, Carl Richey, Milton V. Smith, Thomas Hall, E. B. Shultz, C. H. Garity, C. W. Farrier, William J. Hayes, E. G. Wieseuegel, Lee S. Greene, Clifford J. Hynning, Kenneth V. James, Lawrence L. Durisch, T. L. Howard, and Misses Alice Dewar, Laverne Burchfield, and Mary Agnes Gordon. The excellent bibliographies prepared by Harry Bauer and Miss Alice M. Norwood of the T.V.A. Technical Library have been of great assistance. The Technical Library staff, particularly Ernest I. Miller and Bernard Foy, were very helpful. W. L. Sturdevant, T.V.A. director of information, very kindly supplied data requested. Diagrams in the book are used by courtesy of the T.V.A.

The final chapter of this book has appeared in substantially the same form as an article in *The Virginia Quarterly Review*. Material in several other chapters has been taken from articles by the author published in *Social Forces*, *Public Administration Review*, the *Tennessee Law Review*, and the *Southwestern Social Science Quarterly*.

The author was an employee of the T.V.A. Social and Economic Division from 1934 to 1937, but it goes without saying that the T.V.A. has absolutely no responsibility for the present study. The author also had the privilege of serving as research associate to Dr. Herman Finer, of the London School of Economics, who made a study of the T.V.A. for the Committee on Public Administration of the Social Science Research Council in 1937-1938. The present book, however, is purely the product of the author's own research, and has no connection whatever with Dr. Finer's study. Financial assistance for typing of the manuscript was received from the Public Administration Research Fund of the University of Chicago. The author's deepest obligation is to his wife, who has had to live with this project.

The data of the study are drawn from many sources, and are believed to be reliable. For the gloss which covers them, the author alone is responsible.

C. Herman Pritchett

Chicago
August, 1942

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Introduction

1: The Muscle Shoals Problem

"The continued idleness of a great national investment in the Tennessee Valley leads me to ask the Congress for legislation necessary to enlist this project in the service of the people."

—*Franklin D. Roosevelt* (1933)

ON MAY 18, 1933, Congress created what was in many ways the most unique government agency ever set up in the United States. Its program and its organization differed in important respects from traditional governmental patterns. It was a strange hybrid among the regular departments, bureaus, and commissions in Washington—a semi-independent, quasi-autonomous government corporation. While it was a federal agency, yet it had a local habitation and name, its direct sphere of operations being the 40,000 square mile watershed of the Tennessee River and its tributaries.

Its task was in broadest terms one of regional development. It was directed to promote, by its own efforts and by its example, the control, conservation, and wise utilization of the natural resources of the Tennessee Valley. It was authorized to build dams, and to operate them for the promotion of navigation, the control of floods, and the generation of power. It was directed to concern itself with conservation of the Valley's soil, to experiment with the manufacture of fertilizer and to use the product in a program of education toward improved soil-preserving agricultural practices. It was envisaged as an agency which, unhampered by state lines or departmental jurisdictions, would examine into the peculiar economic and social problems of its area, considering all the factors that go to pro-

duce human well-being, and would then build out of the abundant resources available an integrated program of regional rehabilitation. Its name came from President Franklin D. Roosevelt, who recommended the creation of this agency in a message to Congress on April 10, 1933. It was called the Tennessee Valley Authority.

In the years since 1933 the reputation of the T.V.A. has gone around the world. It has built great and beautiful dams, which have made of the Tennessee River a chain of inland lakes. It operates the most comprehensive system of water control ever developed in a major watershed. It runs one of the biggest power businesses in the nation. But it is not only what the T.V.A. has done that has made it famous; it is also *how* it has been done. Indeed, the major emphasis of this book is upon the administrative achievements of the T.V.A., which are in their way as spectacular as the dams and powerhouses. These achievements include the demonstrations which the Authority has given in use of the business corporation for public purposes, in non-political management of a major public service, in wholesome federal decentralization, in a dynamic personnel program, in cooperation rather than competition with state and local government agencies—in short, in the meaning and potentialities of able and effective public management.

But before discussing either the what or the how of the T.V.A., some attention must be given to the why. Why was an organization set up with this unusual form and wide range of responsibilities? Why was the Tennessee Valley selected as the area of its operations? The answer to these questions requires the telling of a complicated story. For the T.V.A. Act of 1933 was the end product of a chain of circumstances set in motion by the National Defense Act of 1916. The span between those two dates was in a real sense the formative period of the T.V.A., when under the name of the "Muscle Shoals problem" congressional debate and public discussion shaped the solution which was ultimately adopted. It is impossible to understand the T.V.A. without knowing what went on during that period.

THE MUSCLE SHOALS PROJECT

The basic factor in the situation was one of geography and topography—the fact that the Tennessee River drops 134 feet in a stretch of 37 miles near Florence, Alabama. The rapids, pools, and exposed rocks of this section of the river were known from the time of white settlement as the Muscle Shoals. Because it constituted an obstruction to navigation on the Tennessee River, Muscle Shoals received national attention as early as 1824 from Secretary of War John C. Calhoun. The water power potentialities of the site were recognized before the turn of the century.

For a long time circumstances prevented an effective attack on either of these problems. It is true that between 1828 and 1890 various canal projects aiming to circumvent the shoals were undertaken under both federal and state auspices, but none of them was completely successful. In 1899 Congress gave its consent to construction of a dam at the shoals for a private power development, but this authorization was allowed to lapse unused. In 1906 the Muscle Shoals Hydroelectric Power Company (later taken over by the Alabama Power Company) began an attempt to secure congressional approval for a joint navigation and power project there, in which the government was to bear a substantial portion of the cost. The company, however, ran into the conservationist temper of the times, newly aroused under President Theodore Roosevelt, and despite a ten-year campaign failed to get control of this important water power site.¹

So it was not until the first World War, when the United States experienced a sudden need for a domestic supply of nitrates, that the type of development to be undertaken at Muscle Shoals was finally determined. Nitrates are essential to the manufacture of explosives, and have a constant peacetime use in fertilizers. The war in Europe aroused anxiety over American dependence upon Chile

1. See Joseph S. Ransmeier, *The Tennessee Valley Authority: A Case Study in the Economics of Multiple Purpose Stream Planning* (Nashville, 1942), Chap. 2; Jerome G. Kerwin, *Federal Water-Power Legislation* (New York, 1926).

for this essential material. Fixation of atmospheric nitrogen, although comparatively new, had proved feasible, but large amounts of power were required in the only two processes then known (the arc and the cyanamid). Consequently, when the National Defense Act of 1916 was drafted, the problem of securing nitrates for munitions and fertilizers was linked with the provision of adequate hydroelectric power. Section 124 of that Act authorized the President, by investigation, to determine the best means for the production of nitrates by the use of water power or other cheap power, to designate sites on navigable or non-navigable rivers for the exclusive use of the United States, and to construct dams, locks, powerhouses, or other types of plants for the generation of power to be used in the production of nitrates. These plants were required to be operated solely by the government, and not in conjunction with any private enterprise.

Under this authority President Woodrow Wilson late in 1917 designated Muscle Shoals as the site for nitrate plant development, and authorized the construction of a gigantic dam there to supply power for the plants. Two nitrate plants were constructed at Muscle Shoals pursuant to this program. The first was an experimental plant for the production of ammonium nitrate by the Haber process. Only one of the three units in the plant was entirely completed, and continuous operation was never achieved. The second plant was designed for the production of ammonium nitrate by the cyanamid process, but it did not get into production until after the war was over. Consequently there was no occasion for full operation of the plant, and after a test run early in 1919 it was maintained in standby condition. The cost of this plant and appurtenant properties, including two steam generating plants to supply power until the dam was completed, was \$69,000,000. At Nitrate Plant No. 1 the cost was almost \$13,000,000.²

The combined navigation and power project at Muscle Shoals, the original plans for which were drawn up by the Corps of Engi-

2. The history of Muscle Shoals development up to 1925 is summarized in *Majority and Minority Reports of the Muscle Shoals Inquiry*, House Doc. 119, 69th Cong., 1st sess. (1925), pp. 11-37.