The Technocrats

Prophets of Automation

Men and Movements

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Vito Marcantonio, Radical in Congress
ALAN SCHAFFER, 1966

Father Coughlin and the New Deal
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HENRY ELSNER, JR.

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I should like to emphasize that the necessarily controversial conclusions and interpretations of this study are mine alone and are not to be attributed to any of the persons who have been mentioned here.

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HENRY ELSNER, JR.

Philadelphia, Pennsylvania
November, 1966

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I. The New Word of 1932

"Daddy, what's technocracy?" As a comic line in a W. C. Fields motion picture, these few words date the film's release rather precisely. For a few frenzied months technocracy, "the new word of 1932,"[1] had marked the conversation of millions of Americans. Then suddenly it seemed to vanish; today, the word has all but been forgotten, as have the men and events surrounding it.

Technocracy exploded into public attention in the fall of 1932, when the Depression was near its most severe point. The Great Depression of 1929, as it steadily worsened, provided a crisis almost made to order for advocates of radical change. The "Crisis of the Old Order" was worldwide, reinforcing attitudes favorable to change; parliamentary democracy was clearly finished in Germany, the Soviet Five-Year Plan had caught the enthusiasm of many intellectuals. A peculiar feature of the national American electoral structure further enhanced the chances of a revolutionary movement in the winter of 1932/33, for this was the period of the "lame duck" interregnum, when the responsibility and the will to positive action were lacking in either political party. Historian Arthur Schlesinger, Jr., caught the mood of the times: "suspended between past and future, the nation drifted as on dark seas of unreality. It knew only a sense of premonition and of change; but the shape of the future was as baffling as the memory of the past."[2]

In the midst of this economic and political turmoil, the ostensible beginning of technocracy could hardly have been less noticeable. Some time in 1931 or early 1932, a small group of people with common interests in studying the relationships between technological growth and economic change gathered in New York City. Frederick L. Ackerman, architect, and Bassett

Jones, electrical engineer, both well-respected in their professions, were the best-known members. M. King Hubbert, a young geophysics instructor at Columbia University, was involved as was Dal Hitchcock, an engineer. Leon Henderson, then with the Russell Sage Foundation, apparently joined the group in the middle of 1932.[3] A man named Howard Scott was the leader of the small band. A magnetic personality, he impressed all who knew him with the facts and figures at his command; he had had, it seemed, worldwide engineering experience.

On the basis of some preliminary work shown to him by the little group, Professor Walter Rautenstrauch, of Columbia University's Department of Industrial Engineering, became interested. What Scott had already completed, said Rautenstrauch, "was more exhaustive than anything ever before attempted." Frederick Ackerman was able to induce the Architects' Emergency Relief Committee to provide twenty or thirty unemployed draftsmen for research work. In April, 1932, the Energy Survey of North America was set up in vacant rooms made available by Columbia's Department of Industrial Engineering.[4] (Of uncertain origin, the term "technocracy" was not initially used by the group. Credit for coining it, in 1919, was claimed by engineer William H. Smyth of Berkeley, California; Howard Scott has asserted that five other people had used the word, as early as 1882.)[5]

The plan of the Energy Survey was to plot on graphs the industrial development of the United States for the preceding one-hundred years. Rather than monetary measures, physical factors were to be used: man-hours per unit of production, expenditure of energy per product, employment and working hours, volume and rate of growth of production, and total installed horsepower for each industry.[6]

For several months the Energy Survey team quietly proceeded with its work. Evidently, the first publicity it received was in June, 1932, when *The New York Times* reported a speech, given by Howard Scott before the uptown branch of the American Statistical Association, in which Scott discussed some tentative conclusions of the Energy Survey: total industrial employment

reached its maximum in 1919, total production in 1929, unemployment would continue to increase until the collapse of the present industrial system. Scott said that a new design could be developed, not based on commodity evaluations, but on available energy resources and equipment, which would require but 660 hours of labor per year for any worker to enjoy a greater income than at present.[7] By early August, *The New York Times* reported that "hundreds of letters from other research bodies, from universities, economists, labor organizations and civic leaders asking for further details" were pouring in upon the group.[8]

An interview given by Scott at Columbia University on August 21 to *New York Times* and *Herald Tribune* reporters is credited with creating the "first widespread publicity" about the men and ideas now called Technocracy. Scott began to be wined and dined by industrialists, bankers, editors, and future New Deal administrators. Official reports of the Energy Survey or of Technocracy had not been released, but several manuscripts were circulated privately, sometimes hinting at, but never explicitly detailing, plans for a new social and economic order to replace the existing one.[9]

While interest and mystery mounted around the small group of engineers working on their energy measurements of the American industrial system, Alfred E. Smith's magazine, *The New Outlook,* published in November, 1932, the first of a series of awestruck and sensational articles by a young *Herald Tribune* reporter, Wayne Parrish. Instantly, Technocracy was catapulted into national and international prominence.

> The wire associations grabbed liberal portions of this exposition and flung them around the globe, and they were front-paged from Vancouver to Miami. Pacific Coast editors wired back to the managers of press associations in New York City that this was apparently, if true, the biggest news story in years.[10]

That November *New Outlook* article, titled simply "What Is Technocracy?" had the appeal of every strident prophecy of

doom. In the closing months of 1932, such a forecast did not seem problematical. Equally important, it was not the call of a revivalist to repent, of a Marxist for the last effort in the class struggle, or even a vague Spenglerian organic analogy. It was new, it was scientific, it was overwhelming in its facts and figures and the complexity of its terminology.

"Our engineers report that we are faced with the threat of national bankruptcy and perhaps general chaos within eighteen months," Parrish reported. Technocracy's research, under way for "more than a decade, . . . leads to an unqualified statement that there is no solution under a price system." The report was studded with examples of technological displacement of human labor, accelerating rates and quantities of production, increases of available energy. All this illustrated an analysis based, not on conventional economics, but on Howard Scott's theory of energy determinants. Interpreting social change in terms of changes in energy use, the theory's mathematics "is more complex than that of Einstein's unified field theory."

The article concluded with a long quotation from Howard Scott which exemplified both the appeal of early technocracy and the unique talent of Scott. Engineering terminology rarely encountered in political or sociological discourse made the statements seem more obscure or profound than they actually were; an historical sweep and an attitude of unqualified assurance permeated the pronouncements; there was a startling juxtaposition of the technician's vocabulary with that of the political agitator. "Steady state of doing work," "energy transversion," "decision arrivation," "order of magnitude," "thermodynamically balanced load," and "discontinuous wave of technological advance" were typical phrases. The "first social change in human history" had been brought about by modern technology; it could not be dealt with by government or business—"a procession of the dumb, the halt and the blind, stumbling from one futile gesture to another into a final sublimation of fear"—all they could offer "under the exigencies of a price system" were "expedient narcotics." "Final gestures of restraint" might be attempted "to blockade the incoming of a new technological

order." Scott ended by declaring that Technocracy merely outlined the problem for national leaders:

> It is their ship of state and if they cannot find a solution the force majeur of continental conditions in the next few years will bring forth those who can. These problems transcend all social theories and partisan politics—even government. It is civilization itself. Technology has written "mene mene tekel upharsin" across the face of the price system.[11]

Howard Scott not only had a way with words, he had a background that prepared him well for the role of technological-social analyst. In December the second *New Outlook* article described his background:

> Scott . . . is just forty-two years old. Born in Virginia, he was raised and educated in Europe. His father was one of the builders of the Bagdad-Berlin Railroad, and at an early age young Scott was spending time in laboratories. His father was a strong believer in making his young son dependent upon himself. At the age of ten he was traveling about Europe alone. He attended a variety of schools in France and Germany and graduated early from the University of Berlin. He holds three or four university degrees, including the degree of Doctor of Engineering from the University of Berlin. In his early twenties he held a responsible research position in the dyeing industry in Germany. When the World War came he went to England. The family fortune, centered at that time in Constantinople, was confiscated and Scott worked his way to Canada as a stevedore. Identifying himself to the Canadian authorities he became a munitions expert and directed the building of two Canadian munitions plants. After the war he came to the United States and was appointed technician in charge of the building of the Muscle Shoals Project. Later he opened a consulting engineering office in New York. In his earlier years he traveled widely over the world, and directed engineering projects in Mexico, Spain and other

> countries. He is six feet two, refuses to have a "doctor" before his name, and has turned down a professorship in order to devote his entire time to the completion of the energy survey.[12]

In his appearance, mannerisms, and personality Scott compelled attention from friends and critics alike. Stuart Chase, who had encountered him in Washington, D.C., after the First World War, wrote, "Mr. Scott, delivering an amazing flow of technical information and discovery, sidewise, out of a wry mouth, was obviously no man's disciple. He had ideas of his own. . . . His disrespect for economists, with the sole exceptions of Veblen and Mitchell, was profane and profound."[13]

A reporter commented, "It is the man's features that one looks at again and again, even in associations extending over long periods. His is a poker face, neither grim nor melancholy. He smiles frequently but that does not make his expression less enigmatical."[14] Another reporter, Allen Raymond, critical of the Technocrats, described Howard Scott in 1932:

> A lean, tall, somewhat stoop-shouldered man in his early forties with strong aquiline features and the identifying mark of a vertical scar on his nose. He affects broad-brimmed felt hats and the negligent dress of a man too bowed by weighty considerations to give much thought to his appearance. A big leather coat, suitable to outdoor engineering, is part of his make-up in Manhattan's winters. . . . There can be no question but that Scott is an unusual person. He has the knack of seeming to evade publicity, but at the same time surrounding himself with such an air of mystery and importance as inevitably to pique the curiosity of newspapermen who go to interview him.[15]

What Technocracy and its chief prophet were saying was perhaps just what a depression-ridden country wanted most to hear: that the present tribulations were transitional, intermediate to an epoch of wealth far beyond the pinnacle of the late departed prosperity. Uncertainty was converted to certainty: America was experiencing the first great social change in man's

existence. The situation was not only historically but geographically unique—technological change had proceeded this far only on the continent of North America. The Depression was not something unnatural or inexplicable, rather it was the inevitable result of technologically produced abundance, technologically created unemployment smashing the "price system." All this was based on scientific, precise measurements undertaken by reputable, trained people, working at a renowned university.

In the closing months of 1932, as the Depression deepened and national politics seemed to be drifting helplessly, speculations about Technocracy swept across the country in almost every available form. The high point was reached in January, 1933. *The New York Times* alone had no less than sixty articles on Technocracy that month.[16] Forty-one periodical articles and seventeen books and pamphlets on Technocracy were included in the standard indexes for the beginning of 1933.[17] The Technocracy group itself had published surprisingly little material. In January, 1933, it issued the only "authorized," official statements in the form of two slim, hard-bound pamphlets. The *Introduction to Technocracy* contained a previously unpublished manuscript by Frederick Ackerman, "The Technologist Looks at the Depression," which had formed the basis for many early reports about Technocracy, and a reprint of Howard Scott's article from the December, 1932, issue of the *Living Age* magazine.[18] The *ABC of Technocracy* by "Frank Arkwright" (Frederick Ackerman?) told the technocracy story in nontechnical language for laymen.

The books, magazine, and newspaper articles do not give an adequate idea of the public response to technocracy. Publications devoted entirely to it flourished briefly, then died; badly printed pamphlets proliferated. Songs, jokes, poems centered about it. In all of this outpouring, the word "technocracy" was freely used to express all manner of hopes and fears about the economic order, with little understanding of the work of the New York group—partly because of the ambiguity and the complex terminology of its few published statements. If there was any common denominator in the reactions, it was the feeling that

somehow man had unleashed a monster in his midst—The Machine—which had gotten out of control and was threatening to wreck his civilization. Could Science—embodied in the persons of the Technocrats—save us?

Not all of the reaction was favorable, nor did everyone see saviors in the Technocrats. As the publicity increased, its content shifted more and more toward negative appraisals of the Technocracy group and its ideas.[19] The early pronouncements of Technocracy contained dramatic statistics about the displacement of human labor by technology and about present and potential increases in productive capacity. Inaccuracies in these miscellaneous and haphazard illustrations were soon brought out, and the validity of any conclusions based upon them was questioned. The attacks culminated in a lead article by Simeon Strunsky, of *The New York Times* editorial staff, in the magazine section for Sunday, January 8, 1933. Strunsky cited fourteen specific statements made by Technocracy, questioned their accuracy, and challenged the Technocrats' conclusions. In a reply one week later, Harold Ward, officially speaking for Technocracy, admitted errors but maintained that Strunsky had evaded the main issues of technology and social change. Other challenges to the accuracy of Technocracy's figures were often combined with the allegation that its claims and theories were not new or unique but had come from Thorstein Veblen; Frederick Soddy, a British physicist; or Karl Marx.[20]

At the same time, well-known figures in engineering, academic, and business circles were denouncing Technocracy. Karl Compton, president of Massachusetts Institute of Technology, called it inaccurate and fallacious on December 20; C. F. Kettering and Alfred P. Sloane of General Motors attacked Technocracy early in January, as did Dr. Julius Klein, assistant secretary of Commerce. Dr. Virgil Jordan, President of the National Industrial Conference Board, said on January 10 that the country had gone "technocrazy" and that Technocracy had cast "a paralyzing spell over responsible sections of the business community." On January 15, a resolution of the American

Engineering Council accused the Technocrats of capitalizing on the "fears, miseries and uncertainties due to the depression." By January 24, the criticism reached its peak; on that date, Dr. Irving Fisher of Yale, the presidents of Packard Motor Car Company and of the Advertising Federation of America, a Roman Catholic cardinal, and the presiding bishop of the Episcopal church all lashed out at Technocracy.[21]

Increasingly, however, attention had been focused on the personnel of Technocracy, especially Howard Scott. Early publicity about Technocracy had included biographical details of Scott's life. Fantastic stories of personal adventure and prowess surrounded Scott, and reporters stepped up their inquiries about his past. In December, 1932, the New York *Herald Tribune* published a series of articles by Allen Raymond which stated that none of the claims Scott had made, or allowed his associates to make for him, about his education and prior career could be substantiated, with the exception of his employment at Muscle Shoals. There, however, far from being "technician in charge," he had briefly been foreman of a cement-pouring gang. He had been accused of incompetence and malicious mischief on the job and had been discharged after several months.[22] For part of the 1920–30 decade, Scott had been a partner in a New Jersey floor-wax manufacturing firm; he was much better known throughout those years as a Greenwich Village character who, long before the start of the Energy Survey, had entertained listeners with his theories of social change and speculations on a new technological society.[23]

Howard Scott had made other statements, or permitted them to be made, about the nature of Technocracy itself, which were soon brought under withering fire by reporters and critics; e.g., Technocracy was said to have been working continuously since 1920 on its research and to include an international membership of three hundred fifty persons.

Technocracy defended itself as best it could. Professor Rautenstrauch presented Technocracy's analysis before several groups, including the December 28, 1932, session of the Amer-

ican Association for the Advancement of Science. Scott continued to make speeches, and Technocracy replied through the press to specific criticisms and misinterpretation of its work.

In the face of continued attacks on him, four of his associates —Professor Rautenstrauch, Bassett Jones, Frederick Ackerman, and M. King Hubbert—issued a signed statement to the press in December in defense of Scott: "By his formulation of the theory of energy determinants and his metrical approach, he established the point of departure of the Energy Survey of North America and the inquiry into the operation of the social mechanism." The signers added that "their individual contributions could not have been made without the association afforded by Technocracy and the contributions made by Howard Scott."[24] Offered as a defense of Scott, the statement had the effect of intensifying critical fire upon him as the central figure of the movement; the ideas of Technocracy could be linked by critics with the personal eccentricities of Scott.

The statement may also have been offered as an attempt to cover increasing differences within the Technocracy group itself. In general, the statements made by Rautenstrauch, Jones, and Ackerman had been less dramatic than those of Scott; they had not been as specific in forecasting immediate doom for the price system or in making claims for the potential achievements of a technological state. Rautenstrauch reportedly favored withholding publicity on the Energy Survey and stressing the concrete findings rather than speculating upon their implications.[25]

After the initial burst of publicity, a Continental Committee on Technocracy (CCT) had been formed to handle the inquiries that flooded Columbia. Charles Bonner, writer and publicist, and his partner in public relations work, Roger William Riis (the son of Jacob Riis), had been attracted by the press reports and looked up Scott. They volunteered to handle the requests for information and speakers since Scott had said that he wanted to continue his research undisturbed. Bonner and Riis recruited a number of writers and journalists, most of them, then or later, prominent in their fields: Richard Walsh, founder of the John

Day press; James Waterman Wise, editor of *Opinion;* Quincy Howe, editor of *The Living Age* and later a well-known radio commentator; John Franklin Carter of *Time*. Dal Hitchcock was liaison with Scott, and Frederick Ackerman, "the elder statesman of the movement," was also a member. In addition, several liberal-minded socialites and philanthropists were signed up and contributed money. Former New York State Democratic Assemblyman Langdon Post was enlisted as a largely figurehead chairman; Bonner took over the position when Post resigned. Harold Loeb and Felix Frazer, later to be prominent in the CCT, joined several months after it had been organized.[26] While public relations was its foremost job, the Continental Committee also regarded itself as the eventual political arm of Technocracy, which up to then had been officially defined as purely a research group.[27] But Scott rebelled against the restraints imposed by the CCT and "could not keep his mouth shut"; friction within the group increased.[28]

Dissension within Technocracy was heightened by pressure being brought to bear on Columbia University, where the research activities were housed. Members of other departments were unhappy at the engineers' incursions into economics, and academic rivalries may have been heightened by reported support for Technocracy among some of the faculty of Columbia Teachers' College.[29] Outside attacks on Columbia and President Nicholas Murray Butler increased in intensity after a speech made by Scott in the middle of January, the Hotel Pierre address, which climaxed this phase of the movement.

The Technocracy furor was at its peak when the Continental Committee arranged for Scott to deliver an address to a banquet audience of bankers, industrialists, economists, and artists at New York's Hotel Pierre on January 13, 1933. A nationwide radio hookup, reported as the most extensive to date, had been set up to carry the speech. This was to be the forum Scott needed in order to reply to his critics, to clarify contradictions and confusion, and to present the plans of Technocracy to the American people.[30]

> The beginning of the act that night was tense; there was an expectant hush as the leading figure in the greatest economic drama of modern times took the stage. He began to speak haltingly; he groped for words; he sneered at times; he appeared absolutely inarticulate. . . . Scott spoke of ergs and energy certificates and capitalistic economics—all that came over to the hearers was a jumble of unfinished and half-baked sentences. It was all over.[31]

Scott later told a reporter that he had not wanted to give the speech, but that his followers insisted. "Most people didn't realize that I got up out of a sick bed to make that address. . . . And what is more, it was the first public address I had ever made."[32] But another account says Scott "lost his head and his temper, ignored his prepared speech, and delivered himself of a ranting diatribe which dismayed the public and disrupted the Technocratic movement."[33] Technocracy Inc. later defended Scott as knowing "that one radio broadcast would not make a social movement and that one banquet of funded wealth would not build a Continental organization. He threw the bribe back . . . ."[34] Looking back at the Hotel Pierre address thirty years later, the former chairman of the Continental Committee emphatically recalls it as the crisis point of the early technocracy movement. In his view, it was not so much what Scott had said, as his inept delivery, that made the whole thing anticlimactic.[35]

A published text of the speech reveals a combination of technocratic economic analysis, dire political predictions, and an attitude toward critics marked by a mixture of arrogance and aloofness. The new political administration, Scott asserted, might try to exploit Technocracy, even to the point of installing fascism in its guise. But if nothing really relevant to the current crisis were produced inside of two years, the country would face "one of the gravest social readjustments" it had ever experienced. As for Technocracy's critics, "in their character and motives they exhibit an unparalleled functional incapacity." Debt merchants, communists, and liberals—"that last resort of the incompetent and stupid"—were all aligned together defending the present

system. But, Scott continued, events were moving so rapidly that Technocracy might not even have time to complete or publish its work. Technocracy, however, could afford to work and wait; no other organization could. Conditions in the next two years would determine whether technocracy or its critics were correct. Technocracy was only trying to determine what was happening, it had no other aims: "Technocracy has no theory of the assumption of power; it is not concerned with going any particular place."[36]

After the speech adverse publicity grew in intensity, friction increased between Scott and the Continental Committee and within the Technocracy research group itself. Finally, on January 23, in a page one story, the group publicly split. Professor Rautenstrauch, Bassett Jones, Frederick Ackerman, and Leon Henderson resigned from Technocracy and announced that Scott would no longer be permitted to work at Columbia. In their statement of resignation, the four former members of the group said they wished to continue studies of resources, changes in production, and principles of organization and management. However, they could not continue association with Technocracy because of "misunderstanding and confusion concerning the aims and objects of Technocracy" and because "we are not in accord with some of the statements and attitudes expressed by Mr. Howard Scott." No specific "statements and attitudes" of Scott's were cited, but Jones told reporters that the split had been "in the offing for four weeks."[37] A one-time member of the Continental Committee wrote later that Scott had become "publicity-drunk" and that his "overbearing truculence split up the group with which he was working."[38]

M. King Hubbert and Dal Hitchcock remained loyal to Scott, who stated that the resignations, while regretted, would not stop the continuation of research. Accepting his statement, reporters continued to question Scott about his past, pressing him again the next day about his career and educational background.

Relations between Scott and the Continental Committee on Technocracy rupture at the same time. When asked what would be his future connection with the CCT, Scott replied: "Tech-

nocracy does not wish to be associated with any political enterprise. Read what you want into that."[39] With the announcement of the four resignations from Technocracy, the Continental Committee declared it would suspend all activities until after a meeting of its membership. The committee, while conceiving its primary purpose to be that of handling public relations for the Technocracy researchers, had tacitly assumed that eventually a political movement would be democratically organized around the basic idea of distributing abundance to all. After the Hotel Pierre speech and continuing criticism, some of the committee members began to wonder if Scott fancied himself in the footsteps of a Mussolini or Hitler. A meeting was called to clarify the position of Technocracy with regard to democracy and dictatorship. Bonner and Riis represented the CCT, several of the Columbia research group were present, as well as Scott and the "great love of his life," whom he later married, a tall blonde named Eleanor Steele. During the protracted discussion Scott was asked directly if the movement would or would not be organized democratically.

> Scott did not reply. But Eleanor Steele answered for him. "Of course it will be democratic—but Howard should always have the power of veto." Scott said nothing. That decided it, so far as we were concerned.[40]

Bonner and Riis reported back to the Continental Committee, and its members stayed up several nights debating whether to continue or disband.

> Some of us contended that behind the fad, the fantastic figures, and the pseudo-scientific jargon, was a sound idea. And that civilization itself might very well depend on getting this fundamental idea accepted, on proving to the people that the days of material scarcity would be over as soon as they willed it.
>
> We argued that the Continental Committee, instead of being through, had, on the contrary, not yet begun its real work. We argued that neither fools nor charlatans nor the ridicule of the whole world could suppress a valid thesis

> indefinitely. First, we suggested, let us separate the sound kernel from the sensational and meretricious shell; then let's put it over.[41]

Accordingly, on January 29, the CCT announced that it would serve to collate findings of "any responsible group" concerned with the influence of technology in modern society, that it would stimulate thought and discussion, and that it would coordinate already existing groups. Despite this decision, the enthusiasm of most of the committee's members rapidly evaporated. Most of the socialites deserted when it became obvious that the technocratic state was not next week's adventure; the writers and intellectuals, disappointed in Scott, turned to other causes.[42]

After the "Columbia Split," criticism of Technocracy turned to ridicule. By March, 1933, publicity had all but disappeared from newspapers and magazines. *Judge,* the humor magazine, devoted its March issue to lampooning Technocracy in cartoons and quips. In February a little book by John Lardner and Thomas Sugrue, *The Crowning of Technocracy,* had been published;[43] in it the Technocrats were mocked from the Foreword by "Horace Power Ergenjoule, Soddy Professor of Implied Science," to the typesetters' note on the final page:

> This book has been set by hand in the latest Rautenscott monotype in Watt-ho . . . The paper, a deckle-edge Columbia Campus, is waterlogged with the monogram: HS.
> It was made by one machine in five energy hours, using twenty-six British Thermal Units, in the factory North America 1776 of Perkins Goodwin, Continental Division 7-11, New York. . . .

For Technocracy, the moment had been lost—or so it seemed. A few thoughtful commentators, while critical of much of Technocracy, pointed out that a good deal of the attack had been irrelevant, that as a movement and a set of ideas, technocracy was still unanswered. "The question is not whether Scott has lived in Greenwich Village or in Lung Tung Pen, but what his figures show," wrote Stuart Chase.[44] Frederick Lewis Allen similarly noted the irrelevance of assuming that "the personal

shortcomings of the sponsor of a theory would invalidate the theory itself." Complaints of lack of originality also miss the mark, "as if the only good ideas in the world were those which sprang, like Minerva, full-grown from their creators' foreheads."[45] And Archibald MacLeish warned: "The problem which the word Technocracy unfortunately defines is the vital problem of our time and the first human hope industrialism has offered. Those who ignore the problem and those who discredit the hope do so at their own peril."[46]

II. Origins and Ideology, 1919–32

Thorstein Veblen: Founding Father

At the time of the 1932 public uproar over technocracy, discussion of its origins focused upon the work of the dissident economist Thorstein Veblen and upon an organization which had been called the Technical Alliance.

A brief comparison between the orientations of Veblen and Karl Marx can serve to emphasize Veblen's contribution to the development of technocratic ideology. Both Marx and Veblen saw economic systems in a historical and sociological light; for both, economic "laws" and social orders were time-bound sets of conventions, often existing at variance with and in contradiction to the underlying social organization of production. For both, developing changes in the methods and organization of material production would inevitably result in drastic changes in the social and political realm. Beyond these general similarities in orientation however, the contrasts between Marx and Veblen are striking—in the focus of protest, in the evaluation of the technological industrial system, and in the specific dynamics of the changes they foresaw. For Marx, industrialism was profoundly destructive of the whole human personality; the most miserable product of the system, the alienated proletarian, would finally rebel as his condition continually worsened and, in liberating himself, would liberate mankind. The division of labor would be abolished as well as the oppressive class system based upon it. Veblen, while acknowledging human misery, centered his scorn upon the established order not for this reason specifically, but rather for its ineptitude in running the industrial machine. "Lag, leak and friction" was a favorite phrase Veblen used to describe the operation of the industrial organization by the absentee owners and vested interests. The

results of their control he saw as continuous unemployment of men and equipment, waste and inefficiency, lack of coordination. Where Marx sees industrial organization as such in negative terms, Veblen views it enthusiastically. In his writings Veblen seems to express an admiration verging upon awe for the vast, specialized, complex, and interdependent productive and distributive mechanism, all of its parts intended to mesh smoothly with each other in the fulfillment of human material wants. Instead of generating exploitation and alienation which lead to rebellion, as Marx predicted, Veblen saw the dynamic of change arising from a contradiction between a new, scientific rationality —"the discipline of the machine process"—and physically irrelevant notions of value, price, and profit derived from obsolete ideas of ownership.

This theme of the conflict between the rational organization of modern technology and industry, with its corresponding qualities of mind, and the pecuniary habits of thought based on an ownership concept ultimately derived from personal handicraft production runs through all of Veblen's work. Its first major expression was in *The Theory of Business Enterprise,* published in 1904. While Veblen saw industrial workers as being molded by the new habits of thought, and the socialist movement as an expression of the need for rationalization, implicit in his perspective is the idea that technicians and engineers would be the primary agents of change.

Veblen had worked in the federal Food Administration during the First World War; reportedly, his experience there had convinced him that business and political control over industry could not work much longer. In the fall of 1918, Veblen came to New York to work for *The Dial;* a year later he joined the faculty of the newly organized New School for Social Research. Tangible beginnings of the technology movement may be traced to a small group that gathered around Veblen at this time. Howard Scott has written that he met Veblen in September, 1918, having been previously unfamiliar with his work.[1] For about two years, in various settings, Veblen, his friends, students, professional colleagues, and members of the scientific and

engineering disciplines held a series of discussions on the nature of society and its problems. Veblen himself, according to a biographer, "had become obsessed with the important role of the technician."[2] He saw the New School as providing an opportunity for recruiting the technically trained people whom he saw as possessing the knowledge and habits of thought vital to a reorganizing of society. Veblen and his disciples taught courses pointing in this direction—"The Social Functions of the Engineer," "Productive Use of Resources"—and the informal meetings continued. Howard Scott and others later prominent in technocracy were active in these seminars and discussions.[3]

Possibly as a result of these activities, in 1919 Veblen wrote a series of essays for *The Dial,* republished in book form in 1921 as *The Engineers and the Price System.* The slim volume came to be regarded by many as the manifesto of technocracy. Partisans of Veblen and of Scott have argued over who influenced whom in regard to the *Engineers* as well as other early aspects of the movement. Clearly, the central themes in the book were foreshadowed by many of Veblen's earlier writings; some specific points may have been suggested by Scott or others in the circle around Veblen at the end of the war. Scott himself has stated that he disagrees with the conclusions of the *Engineers.* Because of Veblen's personal involvement with those who later became Technocrats, as well as reflection in the movement of the book's criticism of the price system and its specific tactical proposals, it must be considered a basic document of technocracy. In turn, technocratic ideology, as it developed in 1932 and subsequently, incorporated elements not to be found in Veblen's work.

The book reflects, besides American difficulties in industrial mobilization during the war, the success of the Bolshevik Revolution and the contemporary American "Red" scare. Thus it explores the possibility of a revolutionary situation in the United States and ventures to predict who must do what, under what conditions, to take advantage of it.

The industrial system itself forms, predictably, the foundation of the argument. In a discussion of any social organization, an assumption about the organization's purpose or function is

usually made. For Veblen, ". . . the mechanical technology is impersonal and dispassionate, and its end is very simply to serve human needs, without fear or favor or respect of persons, prerogatives, or politics."[4] Next, the peculiar defining charcteristics of the modern industrial system are emphasized: specialization, standardization, complex interdependence of many different parts. It is noted that such a system, and thus the high level of production it affords, is based on scientific and technological knowledge gradually accumulated by society as a whole. The system has the historically unique characteristic of susceptibility to interference, breakdown, or sabotage, with grave consequences for society. In the popular mind, Veblen noted, sabotage and interference with the industrial machine are connected with strikes and other devices used by workers to gain their ends. But such action is trifling indeed when compared to the everyday actions of government and business, especially the latter, as they attempt to operate and control industry.

This state of affairs generates pressure for change—but not of the sort usually foreseen by both radical strategists and the defenders of the status quo. For them, labor organization provides either hope or fear. Veblen, surveying the contemporary A. F. of L. and I.W.W., saw little justification for such views. A violent revolution by the oppressed and exploited is neither probable nor, if it occurred, could it succeed. In America, not only would a successful revolution not follow the Russian example, but it would "necessarily also be of a kind which has no close parallel in the history of revolutionary movements." Previous revolutions were military and political, but a twentieth-century American revolution would be industrial, technological.

"The material conditions of productive industry" dictate strategy, tactics, and personnel. First, the overturn must not be violent or produce social disorganization—the industrial machine is too delicately balanced for that. Second, any revolutionary movement, to be successful, must be able to put into operation a plan for industrial functioning much more efficient than the businesslike reign of "lag leak, and friction."

Technologically trained people must form the nucleus of a new revolutionary movement. They have the habits of mind most likely to lead them to discard concepts of ownership and pecuniary control; they have the training to draw up the vital plans for the nonbusinesslike coordination and operation of industry; finally, being relatively few in number and occupying functionally crucial positions, they are in a remarkably favorable position for organizing themselves and enforcing demands by the threat of a technological general strike. In what is probably the most quoted passage of the *Engineers,* Veblen declares the technicians to constitute "the General Staff of the industrial system . . . whatever law and custom may formally say in protest . . . . Therefore any question of a revolutionary overturn, in America or in any other of the advanced industrial countries, resolves itself in practical fact into a question of what the guild of technicians will do." Indispensable to society's livelihood, dependent on socially accumulated knowledge, "the technicians may be said to represent the community at large in its industrial capacity."

The revolutionary's question "What is to be done?" was answered by Veblen, giving two phases. First, the technicians who are critical of business control and operation must organize themselves for research and action. The research must survey the structure and personnel of production and distribution, analyzing the waste and inefficiency of the present system and drawing up plans for a better method of operation. Second, the technicians must engage in an extensive campaign of publicity so the underlying population will be aware of the necessity for revolutionary change; and they must obtain the active support of the majority of the industrial working force.

Concerning the form of the new society and economy, Veblen would let the revolutionary technicians draw up the blueprints. One change alone is seen as pivotal: the "disallowance of absentee ownership." Absentee ownership means "the ownership of an industrially useful article by any person or persons who are not habitually employed in the industrial use of it." According to Veblen, this definition would apply to corporate property.

The duties of the "incoming directorate" are seen as primarily

those of technical economic planning for the allocation of resources, maintaining employment, avoiding waste, and insuring an "equitable and sufficient" supply of goods and services.

(A memorandum that Veblen prepared for the Food Administration in 1918 gives an idea of how he might have organized distribution. The memorandum dealt with the problem of quickly providing enough farm labor to handle the demands of wartime crop production. Veblen estimated that fully seven-ninths of the retail and business personnel in country towns were engaged in duplicating or unnecessary activities and hence would be available for farm work if an efficient substitute distribution method could be devised. His plan combined features of chain stores, mail order business, and parcel post service; distribution would be managed by the Post Office Department. Small, frequently used household items would be handled through one local depot; larger items, both those sold to the farmer and those he made available for disposal, would be handled through the postal system. Prices would be set by cost-accounting procedures, and government quality standards would be met. The post offices would take over enough banking functions so that accounts could be cleared locally with little actual transfer of funds, hence there would be less paperwork necessary than in the mail-order business.)[5]

Veblen's "directorate" would include "resource engineers," "production engineers," and "production economists." Its decisions would be guided by "current consultation with the accredited spokesmen (deputies, commissioners, executives, or whatever they may be called) of the several main subdivisions of productive industry, transportation, and distributive traffic." In addition, there would be consultation with "sub-centers and local councils." There is no mention of how these various people would be selected (aside from the initial self-selection of the group of revolutionary technicians), nor is there any mention of the State, government, or political parties. The over-all picture presented is quite similar to the syndicalist ideal of self-administering industrial organization, without the need of a political state apparatus. (An indication of what Veblen thought of

politicians is given by his comment, in an essay published in 1922, that "a degree of arrested spiritual and mental development is, in practical effect, no bar against entrance into public office.")[6]

While Veblen personally seemed to feel that a change was in the offing, in the pages of *Engineers* he remained sarcastically skeptical of any real threat to the vested interests and absentee owners. Four conditions worked for the preservation of the status quo: (1) The industrial system still had a margin of safety—considerable "lag, leak, and friction" could be tolerated before the machine would finally break down. (2) The technicians who must play the revolutionary role were still largely unaware of their part and imbued with the ideology of absentee ownership. (3) The working class, whose support was essential, was, in its labor organizations, interested only in improving its lot within the present system. (4) The "underlying population" showed no signs of questioning the prevailing economic system.

The Technical Alliance

As an outgrowth of the discussions around the New School, Howard Scott and some of his friends established a formal organization in 1920, the Technical Alliance. The group obtained offices, set membership fees, and published an eight-page prospectus. In its words, the Alliance proposed to:

> (1) Uncover wastes and leakage in the present industrial system;
>
> (2) Render estimates of the raw material and human effort necessary to insure to the various members of society given standards of comfort;
>
> (3) Show graphically how the present system of production and distribution operates;
>
> (4) Work out a tentative design of production and distribution completely coordinated.

In addition to such research and planning, the group proposed to "form an alliance of all individuals essential to the technique of production," including "engineers, scientists, architects, edu-

cators, physicians and sanitation experts, foresters, managers, accountants, statisticians, etc." Using language strongly suggestive of Howard Scott (no author is given), the prospectus states:

> The maladministration and chaos imposed upon the industrial mechanism by arbitrary rule of extraneous interest has reached such a point that many technicians feel the urgent need of confederating their forces in a program of industrial coordination based, not on belief, but on exact knowledge.
>
> Technicians as such cannot function in politics because their training has placed them in a position where their decisions are the result of ascertained fact and not of arbitrary personal opinion. They cannot function in finance because their concern is with utilization and production, whereas finance is based on money and credits. They cannot function in labor organizations because, as now formed, labor organizations are political groups in which the individual member bears no relationship to his industrial function.
>
> The solution to the industrial problem is primarily an engineering one; therefore it is essential that an alliance of technicians be formed to ascertain and present the results of the present non-technical control of industry, and to put the technical knowledge of the country at the service of the people that industry may be released from arbitrary rule.

All of this could be read as the first steps to be taken by revolutionary technicians following Veblen's guidelines in the *Engineers*. Yet the only really concrete goal of the Alliance seemed to be an "Applied Engineering Service" which would do research for any organization able to pay for the services. This ambiguity of intent was sensed by some of the people whom Scott attempted to enlist in the organization.[7]

The prospectus of the Technical Alliance ends with a list of the "Temporary Organizing Committee" (which probably encompassed the entire membership). Howard Scott is chief

engineer and Sullivan W. Jones, secretary. Other members were: Frederick L. Ackerman, architect; Carl L. Alsberg, chemist; Allen Carpenter, M.D.; L. K. Comstock, electrical engineer; Stuart Chase, C.P.A.; Alice Barrows Fernandez, educator; Bassett Jones, electrical engineer; Robert H. Kohn, architect; Benton MacKaye, forester; Leland Olds, statistician; Charles P. Steinmetz, electrical engineer; Richard C. Tolman, physicist; John Carol Vaughn, M.D.; Thorstein Veblen, educator; Charles H. Whitaker, housing expert. Many of these people went on to distinguished careers in their professions or in public service; a few reappeared later in the technocracy movement. Some of those listed, among them Veblen, were reportedly not consulted before their names were used, although Veblen himself was "apparently deeply interested" in the organization.[8]

The Technical Alliance prepared reports for several clients. Howard Scott recalls that one of the most important was undertaken for a Railroad Brotherhood; another was for the I.W.W.[9] One of the most substantial efforts was a study of industrial waste written by Stuart Chase, which became the basis of his book, *The Tragedy of Waste,* published in 1925.[10]

Despite its activities, the Technical Alliance lasted only about a year, breaking up in the spring of 1921. Financial difficulties within the group and at the New School, Veblen's ill health, and the revival of economic prosperity all contributed, but dissension between Scott and some other members seemed to be the precipitating cause.[11] In the words of one of the participants: "Scott remained somewhat of an enigma to the rest of the group."[12]

The contradictory impressions that Howard Scott created among those who knew him during this period forecast his later role. A faculty member of the New School, who had interviewed Scott late in 1919, wrote:

> I was not favourably impressed with him. I could not believe he was a trained technician, his use of technical terms being highly inaccurate and his thought processes, to my mind, lacking in logical structure and being basically

> unrealistic. His chief idea at that time was an industrial survey which would have required the complete staff and facilities of a census bureau. In brief, I chose to have as little to do with Scott as possible and advised Veblen and Ardzrooni to that effect. . . . Veblen never gave me to understand that he doubted my judgment of Scott.[13]

However, Leon Ardzrooni, a close friend and colleague of Veblen, in explaining the relationship between Veblen and Scott, stated that, although Veblen's health did not permit long and frequent conferences, he took "an unusual interest" in Scott whom he saw as "a highly trained technician." And "Scott's experiences as an engineer during the war, as he related them, were unusually edifying and instructive." Even after the group around Scott experienced difficulties, "Veblen maintained his faith and interest in Scott to the end."[14]

During the decade of the 1920's, the members of the Technical Alliance went their separate ways; Veblen and Steinmetz died in the interval, Jones and Ackerman were successful in their professional careers, Tolman left for California, Chase became a popular writer on economic affairs. Only Howard Scott remained, expounding his theories to anyone who would listen. Throughout this period, according to one account, repeated attempts had been made by some of Scott's friends to set him up in an office and continue the research of the Alliance. Nothing came of these efforts until, in 1931 or early 1932, Scott met M. King Hubbert, later to become Technocracy Inc.'s chief theoretician. Hubbert, a young geophysicist who had come from Chicago to Columbia University, was impressed by Scott's ideas and wanted to see them given a more scientific basis. He paid Scott's back rent, moved in with him, and set about reestablishing something like the old Technical Alliance—an attempt that culminated in the Energy Survey of 1932.[15] The Technical Alliance (or Howard Scott) reportedly had predicted the onset of the Great Depression. When it occurred, several of Scott's old associates sought him out again and became involved in the new venture.

In addition to Thorstein Veblen and the Technical Alliance, a third component of nascent technocracy is to be found in Howard Scott's relationship with the Industrial Workers of the World.

Howard Scott and the I.W.W.

A characteristic flavor surrounds the stories of Howard Scott's contacts with the I.W.W. According to the Wobblies, Scott first encountered them in Chicago in 1919, when he tried to sell them some charts on the structure of the meat-packing industry.[16] A few months later, Ralph Chaplin of the I.W.W. met Scott again in New York and the two men discussed Veblen's "soviet of engineers" in relation to the I.W.W.'s Industrial Commonwealth. Scott urged the I.W.W. to set up a Bureau of Industrial Research to make the surveys necessary before industry could be taken over and run. Overcoming the opposition of some members of I.W.W.'s General Executive Board, Chaplin succeeded in setting up the bureau with Scott at its head. But Chaplin soon had to return to prison, and the research bureau folded.[17]

Howard Scott has denied this account of Chaplin's, insisting that he did not go to Chicago and direct the I.W.W.'s Bureau of Industrial Research. Rather, the I.W.W. was a client of the Technical Alliance, which did a report on the meat-packing industry.[18]

Another account given by Scott of his meeting with the I.W.W. is somewhat more colorful. Early in 1920, so the story goes, several unidentified men came to Scott seeking information on the output and consumption of copper. They did not state why they wanted the information, and they paid in cash. Only later did Scott learn that the mysterious men were I.W.W. representatives and that, on the basis of his facts, the Wobblies had decided not to strike the copper industry. Scott had several further contacts with the I.W.W., arguing against several of their favored practices and theories. Maximum, efficient production rather than sabotage would bring on industrial crisis; organization of migratory workers was futile, as they would be replaced

by machines; skilled machine tenders were the critical group the revolutionist should organize. Scott's ideas "made a deep impression on some members of the organization—perhaps a hundred, Scott estimates, who came into more or less direct contact with him."[19]

Regardless of the nature of Howard Scott's contact with the I.W.W., it did result in leaving for posterity the first two written, public statements of his developing ideology. Two articles written by Scott appeared in the I.W.W.'s *One Big Union Monthly* in September and October, 1920.

"The Scourge of Politics in a land of Manna," in the September issue, opens with an attack upon politics as a variety of "subjective reality," "the emotional expression of the mass," "the fervour of faith, the fanaticism of belief." "If there existed that queer paradox, a political party based, not upon theory but upon actual facts, the situation would not be such a hopeless one." Looking at the American political structure, Scott pointed out that geographical representatives need not be involved in the productive livelihood of the area they represent or even possess knowledge of productive methods. Thus a lawyer may represent a coal district, a physician a steel district, and a banker a farming area. Incompetence is further compounded by the fact that the legislators are not responsible for executing their legislative acts.

As an example of the impossibility of using political methods in industrial matters, Scott turned to the then-current discussion of plans for railroad administration. He pointed out that any solution of the railroad problem must consider water and truck transportation as well as the materials hauled by the railroads. Because of the interrelatedness of modern industry, a change in any one of these areas means changes in the others. To operate the railroads efficiently would mean cutting into the earnings of many interests associated with the present structure of transportation, including the railroads themselves.

"Political Schemes in Industry," in the October issue, examines traditional leftist plans for change. "Workers of the World Unite!" is a good slogan for action; but the problem is that who

the "workers" are is not specified precisely enough, nor is the goal for which they should unite. The trouble with labor and radical organizations is that they organize people either as individual workers or according to their beliefs instead of in the capacity of their industrial function. As a result, these groups are not capable of operating industry; some might do as well as the capitalists, but this is not sufficient. Under conditions of modern industrial interdependence, it is potentially disastrous to argue that the workers would gain the necessary knowledge and organization after acquiring power.

As an example of the inadequacy of radical plans, Scott analyzed the proposals of Britain's Guild Socialists. He found that they would leave intact the major mechanisms of market, price, imperialist foreign trade, banking system, and internal fiscal policy. Because of market relations and differences in productivity, incomes would vary between guilds, "creating a new capitalist class." Each individual guild would probably become static in regard to production processes in order to maintain its employment. Thus, Scott concluded, the radical movement seems to have nothing more to offer than a change in rulers of the same old system.

What would a society be like which would be in accord with modern technology? What would be possible under a national plan, not political but industrial, with production for use instead of for price? Scott hinted at some of the answers in a tantalizing series of rhetorical questions, at the conclusion of the September article. Restatement of these questions provides an outline of Scott's emerging vision of technocratic society.

Under such a national plan one could receive not the present 8 per cent of his productive effort but 69.3 per cent. The remainder would not be taken by capitalists but would represent the citizen's contribution to depreciation, replacement, and the cost of administration and social services such as education, sanitation, and a national health and hygiene service. Agriculture would be industrialized; water-power resources developed; distribution consolidated so that 75 per cent of the people now in retail trade would no longer be needed. Politics would be re-

placed by an "industrial organization" of trained men; courts, too, could be eliminated by "canceling all causes of litigation." Everyone would be assured of economic security by means of a contract with the state which would provide a livelihood until death. Finally, there is a hint that a system of nonmonetary distribution already had been worked out by Scott: gold would be replaced by a currency that could be neither stored nor stolen and would be of use only to the individual to whom it was issued.

Without such a design of industrial administration, Scott warned, society will be plunged into social disorder much greater than the Russian Revolution.

Howard Scott reiterated his basic ideas in February, 1921, while explaining the Technical Alliance to an associate editor of the *New York World*. A technological approach to the elimination of waste—idleness, duplication of effort, and unnecessary exhaustion of natural resources—could result in an unprecedented level of living. The Technical Alliance is the organization to do the necessary surveying and planning for such a system. The problem is strictly a technical one. The question of ownership is irrelevant; people are concerned with it only as long as scarcity prevails. Politics, based on opinions either democratic or autocratic, can make no contribution to resolving questions of fact. Engineers might disagree as politicians but not as engineers. Once given the goal of producing and distributing an abundance for everyone, the engineers can decide how to attain it by factual, nonpolitical methods. "Engineers are not radical or conservative. As engineers they are no more radical than a yardstick and no more conservative than so many degrees Fahrenheit."[20]

In the development of technocratic ideology, then, Thorstein Veblen's contribution emphasized the creation of an anti-pecuniary radical rationalism as a by-product of modern industry, and the crucial role to be played by technicians in any revolutionary change. Howard Scott stressed the invalidation of all prior economic concepts, based on scarcity, by technologically produced abundance. He also introduced, though hardly originated, an energy-level perspective on social development as well

as the notion that monetary mechanisms could be replaced by energy-unit measurements. The latter ideas became explicit in the Technocracy of 1932, though Scott seems to have talked about them for years. Both Veblen and Scott saw waste and inefficiency inherent in business control of industry and felt that industry's interdependence and delicate balance necessitated over-all planning and coordination. Both men shared a strong distaste for politicians, a distaste that was also a cornerstone of the syndicalist philosophy of the I.W.W.

Technocracy 1932

By 1932, technocratic thought had a specific economic analysis to explain the current crisis, apparently derived in part from the Energy Survey research. It also had a more general theory of social change. There were still only hints about the nature of the new society and how to get there—hints even less specific than the proposal for a "soviet of technicians" made by Veblen in *The Engineers and the Price System.*[21]

Technocracy's perspective began with a materialistic conception of history: the fundamental factor in any society is its ability to make use of available energy resources. When the rate of energy conversion remains constant, there is no social change (as defined by the technologist). Thus, domestication of crop plants and domestication of animals marked early, important social changes. But thereafter little change occurred from "the dawn of history to the middle of the eighteenth century," for "man's own body, whether free or slave, was the only energy conversion engine available."

Utilizing these concepts, both the rate and the extent of magnitude of social change can be measured in quantitative, physical terms. For example, agrarian societies are limited to about 2,000 kilogram-calories of extraneous (nonhuman) energy consumption per capita per day. After the introduction of machine technology in the United States, beginning in the middle of the eighteenth century, the figure here has increased to 150,000 kilogram-calories per capita per day. This "constitutes a social change from one order of magnitude to another."[22]

The argument next turns to a specific explanation of the Depression as an incident in the kind of social change just defined. Economic theory is found to be unable to handle such a change. Looking at economics, the technologist-Technocrat notes two things. First, that all economic measurements are made in terms of a variable pecuniary standard, price. Second, it is price that controls production and distribution. But prices, pecuniary wealth, and debt are not physical measurements; they fluctuate without any necessary changes in the physical items they represent. The function, therefore, of "fictitious" economic concepts is not to provide the measurements necessary to balance industrial production and consumption but to provide control over them, in terms of differential advantage.

As seen in nonpecuniary terms, several features of industrial development stand out. First, physical production accelerated tremendously with the introduction of machinery, but then it began to increase at a decreasing rate (the familiar *S* growth curve). Second, man-hours per unit of product have steadily declined. Third, industrial employment increased as industry expanded, until a point was reached at which mechanization replaced men more rapidly than industry expanded. From that point on—about 1920 in most major American industries—total industrial employment declined. New industries increase employment only in their early stages, soon becoming efficient to the point where further expansion means a reduction in employment. Finally, the rate of production growth tends to outstrip the rate of population growth and the rate of possible consumption growth.

Consequently, under price system rules of production for profit and payment of return on capital investment, crisis inevitably follows the industrial development that has taken place. In order to cut internal costs, mechanization must be constantly increased, thereby either increasing unemployment or creating overproduction. To pay off capitalization, industry must continuously expand at a compond interest rate—a physical impossibility.

Even if somehow a sufficient mass of purchasing power could

be injected into the economy to overcome the current depression, the solution would only be temporary. The basic problem is that the entire set of economic concepts and the controls that embody them are simply inadequate to handle a mechanized high-energy society. At best they are too imprecise, too unstable, to perform the measurement required. This was a basic theme of the Technocrats. It is stated with a typical flair by Scott:

> So we have before us the spectacle of a company of persons attempting to run a social system under rules which actually were cancelled on the day when Parliament confirmed James Watt in his patent on the steam engine.[23]

And it is more soberly restated by Professor Rautenstrauch of Columbia, who argued that "in all seriousness and frankness" the technologist could not discover "any elements of balanced control" in the economy or any basis of measurements for designing such controls.[24] The Veblenian formulation that technology and the price system, the engineer and the captain of industry, would inevitably become irreconcilable seemed to be empirically demonstrated on the charts and graphs of the Energy Survey.

But the charts and graphs, the detailed illustrations of technological displacement of men by machinery or of fantastically accelerating rates of productive increase, did not provide a solution to the problem. And an answer was, perhaps, what was most wanted in the fall of 1932 and in early 1933. Technocracy had no specific program, it had no publicly announced tactics for achieving the changes implied by its analysis of the price system. Frederick Ackerman, in Veblenian terms, said a new system would "involve the disallowance of the price system." He added the familiar technocratic claim that communism or fascism would be unable to handle the situation produced by advanced technology, that only further extensions of science and technology could do so.[25]

Rautenstrauch reiterated that Technocracy did not advocate that the country be run by engineers, nor was it interested in promoting legal control by any particular persons or class.

Rather, a social mechanism "should be designed according to the function to be performed and with a knowledge of the materials and forces available to use." Design procedures used by engineers and technologists should be applied to the social order. Beyond that, "Technocracy holds that there are no patent medicines for the ills of the world—nor does it offer any."[26] But Rautenstrauch did sketch a general theory of social organization, unusual in early technocratic writings for its explicit inclusion of value preferences. Any organization may be analysed into components of purpose or objective, program, personnel, and property or "life sustaining resources." In our industrial society, an element of purpose should be that "man is not geared to the machine, but that the machine is to be geared to a social program." Personnel must not only be technically competent but also must have "a high sense of trusteeship." Concluding, Rautenstrauch states that the importance to social life of its four component elements is in the order that he has given: "purpose" foremost and "property" last. "If the pyramid is inverted and purpose is debased with property values uppermost in the public consciousness, we are inclined to believe that the situation is unstable and will not endure."[27] The professor's sentiments were unmistakable, but he, too, failed to provide the elements for an action program.

Howard Scott, director of the Energy Survey, was hardly less ambiguous. In "the first signed statement" (an article in *The Living Age* in December, 1932), he began by asserting that Technocracy is a research organization and concluded by stating that: "Technocracy proposes no solution, it merely poses the problem raised by the technological introduction of energy factors in a modern industrial social mechanism." However, two paragraphs before, Scott briefly discussed the nature of "income under technological control," in a manner reminiscent of the hints given in the *One Big Union* article twelve years before. Income would be based on units of physical measurement, related to a cycle of balanced-load production, and would be good only within that period. Such a method would eliminate all debt, bonds, financial debentures, and philanthropy.[28]

In an attempt to clarify the connections between Veblen and Technocracy, Leon Ardzrooni, Veblen's friend and colleague at the New School, criticized the Technocrats for lacking both a practical remedy for economic ills and the "bold and revolutionary implications of Veblen's Soviet of Technicians." He also thought that Technocracy might mean oppression of unskilled workers by their "more fortunate brethren."[29]

Because of this vagueness of concrete proposals, because of the avowed continuity between Technocracy and the earlier group around Veblen, and because of the etymology of the word itself, Technocracy became identified as advocating a dictatorship of engineers. An official statement released to the press on December 23, 1932, included a specific denial of "connotations of dictatorship by the technician or a soviet of the engineer" but could only counterpose the usual generalities: "a method of scientific procedure in operating a mechanism of continental order of magnitude . . . not one of political partisanship based either upon class antipathy or class dominance."[30]

III. From Movement to Organization

The number of local technocracy groups and organizations that sprang up under the stimulus of the nationwide publicity in 1932 and 1933 is difficult to determine. Commentators agree with the statement of John Franklin Carter that "Technocratic societies mushroomed from coast to coast."[1] Most of them quickly died or lost their adherents to rival organizations. A number were consolidated with the two competing national organizations emerging under the leadership of the New York technocratic factions, the Continental Committee on Technocracy, and Howard Scott's own group, Technocracy Inc.

The surviving fragmentary literature of the short-lived, spontaneously arising technocratic organizations can give only a hint of the men and ideas involved. Some of this material gives the impression of an attempt to supply what the original technocracy publicity lacked: a plan of action, a demand for the abundant society which technocracy said was possible. And some of it seems merely the effort to "cash in" on the popularity of the word by attaching it to promotional projects of some sort.

Spontaneous Organizations

"It is significant," wrote Carey McWilliams, "that no other community in the nation responded so quickly or so enthusiastically" to technocracy as the Southern California area. In an atmosphere of "boosterism and propaganda," with a background of "terrorism and police brutality," the unemployed were joined by the middle-class rootless victims of land swindles and business frauds, along with ex-realtors, ex-promoters, and ex-clergymen. So "this novel combination of circumstances prompted the creation of new and untried political techniques."[2] An engineering approach might be particularly successful in Southern Cal-

ifornia, as technological innovations had played an important role in the settlement of this barren land. The consequence of irrigation is well-known; the area was also one of the first in the country to make extensive use of electricity.

Analysts agree that technocracy, in Southern California, was most significant not in its own right, for it could not maintain its initial popularity, but because of the series of succeeding movements it inspired. The most direct derivative was the Utopian Society, consciously founded upon technocratic economics but incorporating the organizational structure and rituals of secret fraternal groups. It was also active in local politics and liberal causes. By the middle of the summer of 1934, the Utopians reputedly had a membership of at least 500,000 and were holding as many as 250 meetings every night in Los Angeles. But the movement declined rapidly within a year. Upon Sinclair's EPIC (End Poverty in California) and the Townsend Plan also derived much of their popularity from the original technocratic impetus, as did other less significant and less well-known organizations.[3]

Technocracy itself hit Southern California with apparently even greater initial impact than at its point of origin, New York City. Manchester Boddy, owner and editor of the Los Angeles *Daily Illustrated News,* ran Wayne Parrish's *New Outlook* articles as a series of front-page stories in December, 1932. Editorially, the paper commented: "Out of Technocracy, we believe, will come a movement as important as the great American Revolution of 1776."[4] Public reaction to the *Daily Illustrated News* articles reached near-riot dimensions:

> Crowds congregated around the doors of the press-room as publication hour approached. When the first copies, ink scarcely dry, were off the press, the excitement rose to fever pitch. Men fought and scrambled. Dollar bills in the rear were often waved over the heads of those in front. Edition after edition would be sold out.[5]

Boddy also arranged to have Scott's Hotel Pierre speech broadcast in Southern California.

Soon after this period of publicity, the Continental Committee was able to begin organization work in the area. Somewhat later, Technocracy Inc. signed up substantial numbers of adherents, and Los Angeles and its environs have remained a stronghold of that organization into the 1960's. For more than thirty years, *The Technocrat* has been published continuously in Los Angeles. Despite these activities, evidence supports McWilliams' conclusion that "torn apart by internal dissension, the Technocrats failed to organize the enthusiasm which their ideas had evoked."[6]

But even before the New York organizations could establish branches on the West Coast, indigenous spontaneous organizations arose in response to the initial publicity.

Early 1933 produced, in Los Angeles, in rapid succession, *Technocracy—The Magazine of the New Deal,* which published at least February and March issues; *Tec-Knowledge,* commencing with a February issue and becoming the organ of several technocratic groups; the "Technocracy Lecture Bureau"; The Technocracy Society; the American Society of Technocracy; and the Los Angeles School of Technocracy, an on-the-spot promotion of Mackay Business College. The latter offered a course in "Graphic Charting." A letter from the school states that about two hundred were in attendance as of March 8, 1933. The mixed nature of this early response to technocracy is strikingly apparent in the first number of *Tec-Knowledge.* Along with several articles by engineers summarizing or interpreting technocracy is a statement that "ALERT, 'opportunity-minded' individuals of TODAY will be the SUCCESSFUL, 'happy-minded' individuals of TOMORROW! . . . TEC-KNOWLEDGE believes that more OPPORTUNITIES exist TODAY than at any previous time in history." Readers were asked to send suggestions to the opportunity editor of the magazine.

By March, the American Council of Technocracy had been formed in Los Angeles, in an attempt to unify the various groups and contribute to a national movement. The council issued its own magazine, *America Tomorrow,* and devised a "Reconstruction Plan." Despite this activity, one of the council's direc-

tors had to admit organizational problems due to a lack of people with leadership and organizing skills.[7]

In early 1933, George Vail Steep, later a director of the American Council of Technocracy, had published the pamphlet "The Political Expediency of Technocracy," the title of which is probably indicative of the thought of the group. Apparently a journalist with economic or engineering training, the author is cited on the inside cover of his pamphlet as having been editor of *Out West* magazine, editor of the *California Journal of Economics,* and telegraph editor of the *Los Angeles Examiner.* At the time the pamphlet was written, Steep was managing director of the California Mining Council, "A Clearing House for Western Mines" according to its letterhead.

The pamphlet is notable for direct political proposals, as well as for its outline of the projected society. Distinctly middle-class in tone, it is concerned not only with economic problems, but with corruption in government and the question of individual initiative. Nominally socialist in approach, it has no mention of industrial democracy or labor organization. While stating that in its simplified form of government "responsibility of officials to the public is more direct" than at present, many of its proposals seem dictatorial by standards of the 1960's. In this, the Steep plan is probably typical of most of the early programs that centered around the ideas of technocracy. With millions unemployed and in need, the situation seemed to call for immediate action to provide the necessities of life for everyone.

In the pamphlet, Steep called for the election of a technocratic president in 1936, along with sufficient congressional support, to be based upon a new party organization constructed in a fashion similar to the two major parties. This could be accomplished, he believed, if the people understood that the basic necessities and lifetime personal security could be guaranteed by society. Despite the failure in America of socialist and communist movements, a technocratic movement would succeed for two reasons: the pressure of the Depression; and the fact that "communization of necessities" would not restrict individuals, affect the "spirit of rivalry," or interfere with indi-

vidual initiative. Rather, a "minimum foundation" would be set:

> The human race has always stood upon the common ground of the right to breathe. That ground is being extended to the right to drink water, to eat, and to be sheltered. Above that uniform minimum, civilization will proceed by the right of agreement among men with added safeguards to the rights of minorities under the control of majorities.[8]

Further north, at Pismo Beach—then a kind of West Coast Greenwich Village—the publisher of the Pismo *Times,* E. L. Pratt, in November, 1933, began a monthly paper, *The Technocrat,* which was for several years unaffiliated with any organization.

Denver, Colorado, was another center of early independent technocratic activity for which records survive. Here, the American Technocratic League had been organized in December, 1932. By February, 1933, it had a "Declaration of Plans and Purposes," a constitution, and bylaws; it had also called a National Technocracy Convention for July 1–4, 1933, in Denver. Franklin P. Wood, a consulting electrical engineer, was president of the group. Other members of the Board of Directors included an executive of the Boy Scouts, a "prominent attorney in Denver and a well-known figure in groups of progressive thought," the operator of an auto accessory business, an optometrist, an architect and state executive for the Unemployed Citizens' League of Colorado, and an electrical engineer who had also been active in adult and vocational education.[9] Contact had been made with other technocratic groups, and the league temporarily used the Los Angeles *Tec-Knowledge* as its official organ.

The American Technocratic League advocated a socialist program:

> It proposes that the people shall own, develop, and operate natural resources and the machinery of production and distribution; such development and operation to be di-

> rected by technical and business experts, employed as public servants, and under democratic control. It proposes that such development and operation shall be for the *use* of *all,* instead of for the *profit of a few*!
>
> . . . And it further proposes to acquire such natural resources and industries by constitutional means; namely, by voluntary purchase, by condemnation with compensation, by initiation of publicly owned businesses, or by other means necessary to "promote the general welfare."

All citizens would share equally in the "benefits and economies" of the national industrial organization; in exchange for their services, they would be guaranteed "nurture, education and comfortable maintenance . . . from the cradle to the grave."[10]

In its use of terms such as "industrial democracy," "production for use," and in its stress on democratic control, the American Technocratic League revealed itself as more in the mainstream of socialist tradition than did many of the other technocratic organizations. Edward Bellamy's *Looking Backward* and *Equality* were recommended and offered for sale to a person inquiring about the organization.[11]

Chicago, Illinois, became another center of indigenous technocracy activity. On January 9, 1933, the Technocratic party was incorporated by P. L. Cark, M.D., its founder; H. E. Joseph, president of the Taxpayers and Voters League of Illinois; and David H. Pontius, a physician. It launched a magazine, *The Technocrat,* and also publicized itself by means of "The Technocrat Special," a bus owned by Dr. Clark and equipped with five loudspeakers and living facilities for four people. A photograph of the Special shows a large sign across the lower panels advertising the Technocratic party and its magazine: "All the late information on the most important developments since 1776." Above this is a picture of Dr. Clark and a listing of consultation hours for "The Health School." *The Technocrat* says of Clark, "What Howard Scott has done in the formulation of the new science of government, Dr. Clark has done for the advancement of the healing art. Both occupy practically the

same status in their respective fields and both are invincible." After discarding the germ theory, Dr. Clark had discovered that "acidosis" and "toxicosis," both produced by "bad habits of living," were the two basic causes of all disease, including cancer.

In ideology, the Technocratic party was a firm supporter of Howard Scott. The first issue of *The Technocrat* reprints Technocracy's statement after incorporation and lists its types of membership. A Chicago speech of Scott's is enthusiastically reported, and Scott is compared to Abraham Lincoln.[12] (Clark's enthusiasm for Scott vanished when he was not allowed to give an address on public health at a 1933 Technocracy convention.)

A less spectacular and more formidable organizational attempt had been set afoot in Chicago as early as July of 1932. Ralph Chaplin of the I.W.W., who had come in contact with Scott in 1919, began to discuss technocracy with engineers, technicians, and workers in Chicago. The result was the formation of the All America Technological Congress, soon renamed the All America Technological Society (AATS). While the organization obtained an impressive list of officers, most of the work was done by Chaplin and a friend and neighbor, E. J. Costello, a labor journalist.

By December, a Provisional National Executive Board had been elected and a release sent to the public press. In January, 1933, a printed leaflet (*The Answer to Technocracy!*) announcing a plan and detailing the AATS's membership regulations was issued, as was *Manless Machines and Workless Man,* a pamphlet written largely by Chaplin. In March, 1933, a statement to the press announced that the group included fifty technologists from various parts of the country. Officers were given as Brigadier General William I. Westervelt, technological director of Sears, Roebuck and Co., chairman; R. M. Gaston, consulting engineer, vice-chairman; Benjamin Schrager, electrical design engineer of the Byllesby Engineering and Management Company, treasurer; and E. J. Costello, secretary. At a March conference preparing for a National Technological Congress, twenty-two members of the AATS were present, including representatives from the state of Washington.[13]

An organization of technologists, the AATS seemed to follow Veblen's suggestion for a soviet of engineers. It had proclaimed itself different from other "fact-finding and discussional" technocratic groups by its attention to a "comprehensive program of industrial control." In fact, it differed from all the other groups by proposing for itself a classical "dual power" revolutionary role, for the AATS saw its own organization becoming that of the new industrial order. It stated as its aim "the inclusion of all the technologically useful citizens of the nation within its membership."

> Society's engineering, managerial, and productive technological elements are the sole factors in the successful operation of our socio-economic mechanism. It follows that they alone are qualified to assume full control over its exploitation.[14]

An accompanying organizational chart and description show how the AATS—and thus society—would be organized on a pyramidal industrial basis. There are four basic "departments": Natural Resources and Exploitation, General Manufacturing, Transportation and Communication, and Public Service. Each department is subdivided into functional "groups," and each department has four permanent bureaus attached to it: statistics, research and valuation, production, and distribution. In addition, there is an administrative executive board and an "advisory council." The structure repeats itself from the local to the national level. "Each technological unit has its own administrative boards, four bureaus, and its own advisory council. It is fully autonomous within its industrial activity, and within the coordinated society."[15] The ultimate governing body appears to be an annual National Technological Congress.

The AATS's pamphlet refers in passing to the workman's loss of ownership and control over his tools as the factory system was organized, but otherwise it does not mention the question of ownership and profits or such other matters as prices, wages, and election or selection of administrative officers. Nevertheless, the resemblance to a soviet system of technicians and

to syndicalist ideas of a "nonpolitical," industrial organization of society are striking. But given the crucial areas about which nothing is stated, the scheme might also be likened to a Fascist corporate state—which is, of course, also partially derived from syndicalism.

Technocracy Inc.

As technocratic groups sprang up about the country, the original New York factions, following the splits of January, 1933, determined to do what organizing they could. In March, 1933, Technocracy Inc. was formed, with Howard Scott as director. (Scott has held this position from 1933 to date and seems not to have been employed outside the organization.) On March 29, *A Statement by Technocracy* was printed and distributed, clarifying Technocracy Inc.'s position and calling for members in several different classifications.

The statement begins by noting that publicity had poured in upon Technocracy, taking it by surprise, and that its work was swamped by requests for information "and for a statement of public policy which Technocracy was then in no position to give." Now, Technocracy must disclaim responsibility for statements by those who "do not support its basic principles and non-political policies as promulgated by Howard Scott." The efforts of the organization are twofold: education and the development of a design for "scientific control of social evolution," and formation of "an association for mutual protection to those portions of the population who desire to begin building protection *now* against the consequence of the threatened crisis."

The core of the statement is a "declaration of policy of such a nature that it cannot be misconstrued or falsified." In brief, it predicts increasing instability and disorder, necessitating a disciplined organization to maintain order and the flow of goods and services, during the crisis and in the period of readjustment that will follow. Once the present social order has shown its "operational incapacity," according to Technocracy Inc.:

> it will be the function of its engineers and technologists to put into operation a permanent productive and dis-

> tributive system which will harness the energy resources of the country for the mutual benefit of the entire population on a continent-wide basis.

In the statement, the term "technologists" is defined in the broadest manner and encompasses, in addition to engineers and scientists, "educators and experts in such other departments of human activity as are functionally necessary for the operation of the social mechanism."

The statement declares opposition to the "irrational assumptions of Communism" and to "the hollow mockery of Fascism." It claims that "Technocracy stands ready with a plan to salvage American civilization, if and when democracy as now functioning can no longer cope with the inherent disruptive forces." Technocracy Inc. believed that the people would demand this plan and "that the substitution of scientific national management for the present muddling, wasteful and ineffectual political and economic set-up represents the simple and natural progression of the American genius."

Organizational bylaws were written, stipulating the basic unit of Technocracy as the "Section" of twenty-five or more members. Sections in turn were to be organized into "Regional Divisions." Letters were sent out summarizing Technocracy's plan, noting the establishment of Continental Headquarters, and requesting membership and participation.

> Technocracy proposes that this continent from Panama to the Pole, from Hawaii to Bermuda, be operated as a self-contained functional unit under technological control. . . . Such a continental control would therefore guarantee security to all and equality of income for everyone.

To achieve this goal, Technocracy study groups and secondary organizations were being set up throughout the continent. Technocracy groups in each area would carry on "educational activities and surveys of the physical resources" and, therefore, would "require the participation of all types of people."

In February and March of 1933, Howard Scott lectured frequently in the Middle West, coming to Chicago twice and tour-

ing Wisconsin and Minnesota. It was reported that "for 16 days continuously he spoke no less than three times a day." Despite these efforts, Technocracy Inc. appears to have made few organizational gains in 1933. The rival Continental Committee on Technocracy later claimed that as of June, 1933, Scott's membership "numbered perhaps thirty."[16] Technocracy Inc. itself dates its growth from Scott's 1934 lecture tour.

The Continental Committee

The Continental Committee on Technocracy had decided to continue as an educational and coordinating organization after the "Columbia Split" of January, 1933. On April 6, 1933, a *Declaration of Aims* was issued, which was widely reprinted in its literature throughout the CCT's existence. The statement concludes:

> We present a program through which the people of this continent would secure for themselves material plenty and economic security by abolishing the price system, ending the private control of natural resources and industrial equipment, and instituting therefore a scientific social control.
>
> We propose:
>
> 1. That the people legally acquire the means of production and the natural resources of the continent.
> 2. That the trained technicians, in all fields, be drafted to integrate and modernize the equipment, operate the machinery and administer the resources of the continent for the equal benefit of all.
> 3. That a technologically sound social mechanism be established under which every adult, capable of service, shall contribute his service to the end that by such cooperative industry the individual shall vastly increase the standard of his living and acquire a leisure in which to pursue his own interests in a way hitherto possible only to the privileged few.
>
> We will work to this end by the following means:

1. Perfect the technical plan by which the American community will continue to function as a whole when the present institutions shall have become inoperative.
2. Establish as rapidly as possible a practicable working organization in every functional division and sub-division of the Continent.
3. Secure general consent through orderly social procedure by intensive educational work.

Early in 1933 the Continental Committee on Technocracy was incorporated as a nonprofit organization. The bylaws specified seven directors to be elected by the membership, three classes of membership, committees, dues, and other paraphernalia of organizational structure, including provisions for Regional Divisions and local units. Membership was open to any resident of the North American Continent; the bylaws could be amended by a two-thirds vote of the membership.

The first work seems to have been directed toward organizational consolidation—efforts that were highly successful during the spring of 1933. By June, Los Angeles' American Council of Technocracy had apparently merged with the CCT, for George Vail Steep was signing letters on behalf of the California Division of the committee; Denver's American Technocratic League had also merged, and the name of its Franklin P. Wood appeared on the New York letterhead. By the beginning of 1934, the Pismo Beach newspaper, *The Technocrat,* was devoting major space to the Continental Committee. On May 22, the Continental Committee publicly announced that it had a nationwide membership of 250,000, six Regional Divisions, and more than seventy local units—an estimate greatly inflated.[17]

About June 10, 1933, Harold Loeb, executive director of the Continental Committee, sent out a form letter announcing the merger of the Denver League "and practically all other groups" with the CCT. The letter presented a confident call for a national conference of technocracy organizations, to be held in Denver, July 3–7, "at which all plans, purposes, programs, etc. will be announced and the direction of this momentous

movement defined. . . . We are now approaching the time when the forces of Technocracy will be integrated into one compact militant organization."

But, before the Denver conference, another national meeting was held which affected not only the technocratic movement's organizational direction but its public image as well.

The 1933 Chicago Convention

In the process of consolidating the technocratic groups, the Continental Committee in March had sent James Waterman Wise to negotiate with the Chicago All America Technological Society. As a result, the latter group's projected 1933 National Technological Congress was broadened in scope to be a "Continental Convention on Technocracy," to be held during the Chicago World's Fair, June 27–30. At the planning conference, Technocracy Inc. was not mentioned, but as a technological group, it was later invited to attend the convention.[18]

Technocracy Inc. wired its acceptance as soon as it received the invitation. The next day, Scott wrote a letter announcing the appointment of M. King Hubbert and E. L. Taylor to the convention Agenda Committee. Further, he had already invited Leon Henderson and Walter Polakov to speak, and he suggested that Irving Langmuir of General Electric, Stuart Chase, and Richard C. Tolman of California Institute of Technology also be invited. Two days later Hubbert submitted three typewritten pages of program, with suggested speakers, on the central theme of "The Problem of Guaranteeing Complete Economic Security to Every Individual in a High Energy Social System." Eleven papers were suggested, culminating in speeches by Hubbert on "Technocracy—the design of a high energy social mechanism" and Scott on "Technocracy's Highway to the New America."[19]

Either because of this enthusiastic activity, or because of crucial organizational connections, Technocracy Inc. rapidly began to dominate the forthcoming meeting. When the official call for the "Continental Convention on Technocracy and the National Technological Congress" was issued, Technocracy Inc. had now become a sponsor along with the Continental Committee on

Technocracy and the All America Technological Society; on both the letterhead and signature of the document Technocracy Inc. is listed first. And the convention program appeared on the gray paper, later to become an official color of Technocracy Inc., with Scott's red Monad emblem gracing its cover and the delegate's ribbon attached to it.

The program itself listed an impressive six sessions, two to be chaired by representatives of the Continental Committee, two by General Westervelt of the AATS, and one by the president of the New York Society of Industrial Engineers. A total of nineteen papers were to be presented. Speakers were to include several attorneys, a newspaperman, a physician, a former Chicago public works commissioner, and a labor leader, as well as the engineers and leaders of the various technocratic organizations. The convention was to conclude with a banquet meeting to be addressed by Stuart Chase, Clarence Darrow, Eustace Hayden of the University of Chicago, and Howard Scott.

Almost as soon as it begin, the convention exploded and began to disintegrate. Precisely what happened is not too clear from the various reports issued, nor is it certain how many of the planned papers were delivered. What is certain is that the uproar centered, predictably, about Howard Scott. *Time,* under the heading "BAYONETS FOR TECHNOCRATS," presented an account in its own inimitable style.[20]

E. J. Costello, the executive secretary of the convention, was quoted by *The New York Times* as stating that the trouble was due to misquotation in the press: Scott had not said technocracy would use force and bayonets, but when the members of the AATS read this statement attributed to him in the newspapers they withdrew from the convention. Costello added that "the Westervelt group is composed of the more conservative industrialists, and of course, they do not wish to be identified with those who advocate the use of force." Scott was also quoted by the *Times*: "I never said technocracy would gain its end by force."[21]

Harold Loeb of the Continental Committee, present at the convention, later recalled the incident that broke up the sessions:

> . . . the final session got under way. Howard Scott addressed the several hundred delegates. . . . Influenced no doubt by the Marxian hypothesis, a delegate asked Howard how he would institute technocracy if the owners of factories refused to go along with the program.
>
> Howard did not hesitate. "Stick a bayonet up their . . . . ", he asserted. There was silence, then a thin scattering of applause. That broke up the meeting.[22]

Technocracy Inc.'s report of the convention gave a picture of successful achievement. It mentioned an opening audience of about two hundred, three days of formal papers at which a steady attendance was maintained, and opening and closing addresses by Howard Scott. "The statements in the press alleging that Mr. Scott threatened violence are misquotations and absolutely without foundation." Organizational business in regard to unification of the groups was conducted in committee and reported as successful.[23]

What the convention had accomplished in reality was to define further the character of the movement by separating it from the "conservative industrialists"; to leave yet another impression of irresponsible agitation on the public; and to leave the movement with a fundamental split. The following year the Continental Committee noted with a trace of bitterness: "The several attempts to merge, or at least coordinate, our activities, which well intentioned third parties have attempted, have all gone smash on the same rock, the leadership of Howard Scott."[24] Recalling the convention years later, Loeb felt that it also marked a division in the kind of members recruited to the two wings of the movement:

> At any rate Technocracy Inc., Scott's personal organization, recruited those individuals who favored a conspiracy of picked men in key positions who would wait around to seize power by force when the economy collapsed. All the others, the dreamers, the Utopians, the anarchists and the left-wing liberals joined up with the Continental Committee.[25]

Even for Technocracy Inc., the convention's seeming organizational victory was to prove ephemeral. The new "Chicago Sections" of Technocracy Inc. amounted to nothing more than a small informal discussion group, according to the accounts of participants. Not until 1937 was a stable, active Section organized in Chicago. The meeting's one lasting contribution to Technocracy Inc. was Ralph Chaplin's editing of Scott's convention address, "Science versus Chaos," and its publication by the Chicago group. It is still available today as a standard item in Technocracy Inc. literature.

The outcome of the convention left the Continental Committee on Technocracy as apparently the most promising technocratic organization. But when Loeb and Frazer returned to New York to report on the Chicago meetings, the only one interested enough to come to the office was the committee's chairman, Charles Bonner.[26] Nevertheless, Loeb and Frazer decided to proceed with the Denver convention as planned.

IV. The Plan of Plenty and the NSPPC

The Plan of Plenty

The CCT's "First Continental Conference," held at Bear Lake, Estes Park, Colorado, July 3–7, 1933, was a small gathering of twelve to fifteen delegates, most of whom were socialists. Harold Loeb recalls: "After sitting around for a couple days listening to the socialists talk, Frazer and I went out and wrote the *Plan of Plenty*."[1] The fifteen-page pamphlet became the CCT's basic statement. Its 1934 version was printed in two Denver editions, three California editions, and three New York editions.

The *Plan of Plenty* is essentially an outline plan for putting into operation a publicly owned system of production and distribution of "nonscarce" goods and services up to limits set by resources, physical plant capacity, and manpower. It was a plan to end the Depression and to insure maximum distribution of technologically produced abundance. It is not a blueprint for the total reconstruction of society; the political institutional structure is not mentioned, nor is a general theory of social evolution and change.

What is proposed is a kind of centrally directed and planned cooperative for all the necessities of life. In return for his work during a specified period of his life, the individual citizen receives a guaranteed income for life. Purchasing power would be estimated on the basis of a limited productive period and would be allocated equally among the population. Individuals would be allowed freedom of choice of work. If someone refused to do any work, "his Purchasing Certificates may be reduced until he changes his mind unless on the advice of proper medical authority he is to be treated as a mental case." The actual amount of income to be available to all is not specified, although

an estimate of $5,000 per year made by A. A. Berle in another connection is cited. (Later research of the CCT attacked this problem directly.) Similarly, it is asserted that hours of work could be reduced drastically and leisure increased.

The *Plan of Plenty*'s economic system leaves "intrinsically scarce" goods outside the planned economy. Such things as "oil paintings, first editions, antique furniture, works of handicraft, jewelry" would be subject to distribution by gift, barter, or in a kind of subsidiary economy possibly using the previous currency.

Several other policy problems of the new economy are also mentioned. It is asserted that the place of the farmer in society will be little changed, although he "will be required to grow the crops and stock for which his land is best fitted and will be assisted in cultivation, fertilization and husbandry." His income, like that of all others, "will be entirely independent of the success of his efforts." Concerning the problem of property, natural resources and productive equipment would be publicly owned, with the property "actually used and possessed by the individual" remaining private. Finally, it is pointed out that taxation in the current sense is unnecessary, since the cost of public services is included at the planning level at the time income is determined and allocated for the next period.

The core of the *Plan* is concerned with the question of distributing purchasing power. Related technical matters of pricing goods and services in a planned economy, and deciding on what is to be produced, are also handled. The original technocratic idea of energy measurement as a basis of distribution is discarded as being unworkable in many instances, and other methods of pricing are suggested, revolving around the notion of "difficulty" in production. In effect, what is devised is a kind of rationing system; but it is based on abundant material, with consumer choice determining, within some limits, what will be produced. The mechanics of the purchasing power or distribution system are summarized:

> In order to create a purchasing power sufficient to procure the commodities which the accelerated rate of industrial

activity will produce, a new monetary system will be instituted. The units of this new system may be called dollars. They will be issued to the entire population. Their sum, that is to say the total purchasing power of the people, will procure all the goods and services available for consumption during a predetermined period called the balanced load period.

. . . the new dollar will have the following characteristics:

(a) It will be issued against available goods and services.

(b) It will be non-transferable.

(c) It will be cancelled at the point of distribution for consumable goods and services as these are obtained.

(d) It will be issued for definite periods of time and at the end of each period it will be cancelled whether used or not.

(e) It will be issued under proper control to every individual.

Next, the problems of a transition period and the actual introduction of the Plan of Plenty or technocracy are considered. It is suggested that adequate constitutional powers are vested in the president and Congress for the changes envisaged—the National Recovery Administration is cited as legal precedent. Immediate emergency measures would include declaration of a general moratorium, assumption of public control of productive and distributive facilities, a proclamation of continued service on the part of groups and individuals, registration of the population on the basis of selective service regulations, and the institution of a rationing system to insure continued flow of goods and services. After these first steps would come the matter of setting up the National Control Board to run the economic system, acquiring all necessary facilities and establishment of the requisite administrations, and devising and distributing new purchasing certificates. The problem of the rate of reducing income differentials during the transitional period is also discussed.[2]

A mimeographed *Bulletin* issued by the CCT at the end of 1933 explored the transitional program in more detail, discussing reasons for each of the steps suggested and examining the problem of compensation for former owners of public facilities. It also dismissed the problem of attaining power as one that would be resolved by future circumstances; the method could take any number of forms, from "converting an existing administration" to "a successful class war."[3]

The *Plan of Plenty* was the document that the Continental Committee and its local affiliates presented to the nation as a demand for action. Through 1933 and 1934 the CCT developed, in addition to the *Plan,* a varied supply of well-written, attractively printed pamphlets and a list of recommended books. The pamphlets were often reprints of articles that had appeared originally in the public press. Many of the books listed by the CCT were not written by committee members. Bellamy's *Looking Backward* and *Equality* were recommended from the beginning, as were three of Veblen's works, including *The Engineers and the Price System.* Two British pre-technocratic works by Frederick Soddy and Fred Henderson, often cited as influential in early technocratic ideology, were on the list. Harold Rugg of Columbia Teachers' College, sympathetic to the CCT, wrote *The Great Technology.* Two other nonmembers, Stuart Chase and economist George Soule, were represented by *The Economy of Abundance* and *The Coming American Revolution,* respectively, as soon as these books appeared in 1934. This book list in itself reveals an important fact about the CCT. Apart from a basic position, it had no strict doctrine. Many of the books it recommended contradicted each other in various ways, although all were directed toward the same problems.

Similarly, while in many places the CCT was careful to point out what it regarded as basic differences between its approach and that of Marxist and other traditional socialist groups, it was careful *not* to define itself out of the mainstream of the radical tradition. Thus, in a bulletin devoted to the differences between the Plan of Plenty and socialism, Harold Loeb stressed that socialism was concerned with the unjust distribution of wealth

and consequently purchasing power, while technocracy talked about the effects of abundance upon profits and purchasing power. But, he added, the two approaches converged on the matter of a planned economy and on the fundamental goals for society. Later, while he described an article by Stuart Chase as stating "so clearly and concisely the basic difference between our approach and the traditional Marxian attack, that it makes one of the most valuable additions to our literature," Loeb also, in another article, stressed the importance of all radical groups in contrast to liberals, whose policies "can have only one result—the bolstering of a rotten structure by re-distributing a grossly inadequate income." Felix Frazer, the other chief spokesman for the CCT, in his *Advice to the Left* talks of a broad, leftward, "Production for Use" movement and recommends dropping class-war jargon and stressing American forefathers such as Veblen and Bellamy. In 1936, in one of the last articles in which he speaks for the CCT, Frazer again discussed the differences, but emphasized the agreement in ends, between Marxism and "The Modern Theory of Advancing Technologies and Declining Profits."[4]

Leadership Personnel

The CCT as an organization and an ideology owed most to these two men, Harold Loeb and Felix Frazer. From 1933 to 1936 both wrote extensively for CCT and public periodicals, directed research, lectured, gave radio addresses, and toured the country in behalf of the Plan of Plenty.

Harold Loeb, executive director of the CCT, was born to Guggenheim wealth on his mother's side and the Loeb banking interests on his father's. But the business and financial world seemed to have little appeal for him, even though, after graduating from Princeton, he had worked as a building contractor in Alberta, a flooring salesman, and a purchasing agent for his uncle's American Smelting and Refining Company. Artistic and literary pursuits seemed more to his liking. After his discharge from the Army in 1919, he began to work in a small New York City bookstore which was a meeting place for young writers and

poets; sometime later he purchased a half-interest in it. Weekend discussions among an intimate group of friends often centered about criticisms of society. "I, too, disliked the existing order," Loeb recalls. "I thought the economic elite was stuffy, receiving a disproportionately large cut for its services. Like the others, I wanted to work toward a new and better world, to serve a cause that transcended my own interests." Although he had met Howard Scott in 1919 and was impressed both by the man and his thesis, for the next few years Harold Loeb's literary interests dominated his life. The bookstore, in financial trouble, was sold; and Loeb sailed for Europe in 1920 to start a new "little magazine," *Broom* (for which he had unsuccessfully tried to extract an article from Scott, who was then in the floor-wax business).[5]

Back in the United States when the Depression struck, Loeb recalled Scott's theories and predictions—which now seemed to be fulfilled in a devastating fashion. Then, one day in 1930, Loeb ran into him again on the street. As a result of this renewed contact with Scott and of his own speculation, Loeb wrote *Life in a Technocracy* and unsuccessfully offered it to various publishers. When the publicity struck, the manuscript was suddenly in demand and was finally published in January, 1933. The book presaged a society organized around industries, in syndicalist or guild-socialist fashion, run by the most competent experts (although workers would remain organized to provide ultimate grass-roots control). Loeb was not as contemptuous of political parties and government as Scott, but he thought they would serve only an ornamental purpose in the new scheme of things. Industrial decentralization and community autonomy would lead to a wide cultural diversity and development. And like all later Continental Committee economics, Loeb's system saw equal "free" distribution of abundant goods and services, with circulation of scarce, handicraft, and antique items flourishing in a kind of leisure-time secondary economy. Conferring over the writing of Loeb's book, Scott and Loeb found themselves differing fundamentally in interests and approach. Loeb was concerned with the development of artistic and individual values after technology had eliminated material insecurity; Scott insisted

that Technocracy was not concerned with values.[6] Traveling in the South at the time of the Hotel Pierre speech, Loeb was recruited into the CCT when he returned to New York.

Felix Frazer, chairman of the CCT's Technical Division, was an engineer by training, with varied professional experience and long-standing involvement in liberal political action. He was educated in Europe, first in music and then in mathematics. A pilot in the First World War, he later held an early American civilian license and worked on machine-gun syncronization for the Curtiss Airplane Company. Frazer founded or was a partner in many technical enterprises, including the Frazer-Glassford laboratories of New York which did pioneering work in television. Entering government service during the Depression, he was first an economist and statistician, later a law-enforcement agent, and finally a research engineer for the Rural Electrification Administration until 1949. His government service included the posts of assistant chief of staff of President Franklin Roosevelt's personal information and statistical service and investigator for the La Follette Civil Liberties Committee. As a result of his research and writing for the Continental Committee, Frazer became a member of New York University's forum staff in 1935 and a lecturer on economics for the Department of Education of New York City.[7]

According to his own account, Frazer was dramatically swept into the technocratic movement at the time of peak publicity and public furor. Because he had known Howard Scott years before in New York as the boyfriend of a classmate at music school, friends insisted that he must know all about technocracy. Without his knowledge, they arranged for him to make a speech on the subject when he was visiting Pasadena. Introduced by the mayor as "the eminent New York engineer who will tell us all about Technocracy," he composed the speech on his feet. Returning to New York, he looked up the Continental Committee and was immediately put to work speaking and writing.[8]

Two others deserve special mention in CCT activities: Charles Bonner, its chairman, who also became managing editor of its

paper; and E. L. Pratt, editor and publisher of that paper, *The Answer.*

Charles Bonner had been a newspaperman for three years after receiving the Bachelor of Arts degree from Williams College in 1918. In 1923 he founded a public-relations firm with Roger William Riis; in this capacity, he brought together the original Continental Committee on Technocracy late in 1932. He later became a popular and prolific writer of novels, short stories, articles, and movie scripts. A "life-long Democrat with liberal tendencies," he worked in Franklin Roosevelt's first national campaign prior to the technocracy episode.[9]

E. L. Pratt, born in Florida, went to London in his youth and eventually became a world correspondent for the *Manchester Guardian.* In 1918 he founded a pacifist paper, the *Herald of Peace.* Some years later he moved to California and engaged in various printing and publishing ventures. The outbreak of technocracy publicity found Pratt publishing the Pismo Beach *Times.* He launched *The Technocrat* in November, 1933, as an unofficial monthly newspaper for all technocratic groups and ideas. Favoring the Continental Committee's approach, he changed the name of the paper to *The Answer* in April, 1935, after a plebiscite of readers. In June, 1935, *The Answer* became the CCT's official journal. Pratt had been a British socialist, and on occasion he stated that the Continental Committee should play the role of an American Fabian Society.[10]

The Second Continental Committee

After the *Plan of Plenty* had been written and adopted at the July, 1933, Denver conference, Loeb and Frazer continued westward on a tour of the CCT's local units and Regional Divisions. Returning to New York after several months, they found to their dismay that almost the entire New York Continental Committee on Technocracy had resigned or just dropped quietly out of sight; the exception was Bonner, its chairman, who let them work in his own office. A new group was slowly gathered. Wayne Parrish, the *Herald Tribune* man who had in large

measure started the Technocracy furor, joined the CCT but eventually reigned because of a personal clash with Loeb's "dictatorial manner." Several engineers were recruited: Victor Dorkovitch, a Russian-born and English-educated mining engineer, who resigned when pay was cut on a research project undertaken by the CCT; a young engineer in the communications industry who used a pseudonym because of his job and who was highly regarded by Loeb as "the only one of us who really understood economics"; and Dr. Walter Polakov, an internationally known electrical engineer who had pioneered in the development of remote control instrument boards. Polakov had been superintendent of power for the New Haven Railroad; he had acted as consultant to the New York Board of Estimates, to the U.S. Shipping Board, and, in 1929–30, to the Supreme Economic Council of the U.S.S.R. In 1933 he had headed a New York Society of Industrial Engineers committee to evaluate technocracy. Loeb recalls Polakov as "having an aplomb I didn't have" and as a man who "only read one book in his life—Karl Marx."[11] Although various other people were to appear from time to time on an impressive letterhead, those named here —along with Bonner, Frazer, and Loeb—were the most active members of what was in effect the second Continental Committee.

Some of the resignations of the original CCT had been prompted by the feeling that a hoax had been perpetrated by Scott, that the promised research had never been delivered; disappointment was also felt by the remaining members over the extent and quality of the organizational efforts so far achieved in the rest of the country.[12] Perhaps in part because of organizational weaknesses and troubles, the Continental Committee from late 1933 onward increasingly emphasized the need for demonstrating first the logical, irrefutable, conclusive validity of its ideas; then, perhaps, a movement might be built on this solid foundation. This was the theme and conviction that dominated the New York leadership of the CCT until its final days. "We are not, primarily, concerned with the success of any organization

but with a general understanding and eventual effectiveness compelled by a new body of facts," wrote Chairman Charles Bonner in April, 1934.[13]

The National Survey of Potential Product Capacity

The Continental Committee's attempt to prove and publicize, once and for all, the fact of abundance was climaxed by its National Survey of Potential Product Capacity (NSPPC). The idea behind the survey was actually to determine what the American consumer might expect in goods and services "if production were limited solely by physical factors and knowledge." Loeb and Dorkovitch journeyed to Washington and were able to get the project underwritten by the federal government's Civil Works Administration in February, 1934. Beginning in March, some thirteen experts with forty to fifty assistants began to work on the problem. Harold Loeb was the project's director; after some shuffling of personnel, Felix Frazer became director of research. Walter Polakov of the CCT was one of the chief researchers. Other members of the staff "were hired not as technocrats, but as engineers." When the CWA folded, the survey was transferred to the New York Housing Authority under Langdon Post. The transfer necessitated a drastic salary cut, and several of the staff resigned.[14]

The goals of the survey were officially defined as the determination of:

> (1) The ratio of actual production to capacity production.
>
> (2) The manpower required for (a) existing production, (b) capacity production.
>
> (3) The degree of interdependence among industries to ascertain possible bottlenecks in the flow of materials from the natural resources to the ultimate consumer.
>
> (4) What purchasing power would be necessary to command capacity operation of the existing plant, at any given price level.

The survey team was empowered to:

> (5) Translate capacity production into consumer goods and services, and
>
> (6) Translate the consumption of these goods and services into terms of life (a) for society, and (b) for the individual.

For technical reasons, such as the difficulty of measuring some kinds of "capacity" and handling the problem of allocation and possible bottlenecks where one item is later transformed into a variety of others, three series of measures were set up: actual 1929 production, possible capacity production based on existing facilities and manpower, and a "desirable" or "budget" production. The latter measure was necessary to give real meaning to the capacity measures; e.g., steel mill capacity means little unless it is somehow decided what proportion will go into railroad rails, capital equipment, or household appliances. Thus, a national budget of personal consumption was set up, based on various estimates of adequacy, comfort, and actual consuming habits. Food, clothing, housing, medical care, education, transportation, recreation, social and civil services were included. The method was to work from raw materials, through the various processings, to the categories of final consumption; then, to check back in the other direction, working out the allocation of materials.

As a result of its findings, the survey concluded:

> The existing resources, plant, and personnel of the United States are not only capable of providing a high standard of life for the entire United States but are also capable of simultaneously replacing obsolete equipment and expanding the plant at a rate somewhat higher than the satisfactory rate practiced during the years 1923 to 1929.[15]

When translated, into 1929 dollars, the survey's budget came to an annual income of $4,370 for a family of 4.02 persons. This figure, according to the survey's calculations, was not a kind of "average minimum" income but a representation of what could

be physically consumed, excluding all "scarcity valuations." Thus, for example, only a certain amount of food can be eaten, a certain number of clothing items worn in a year—although in the latter case, custom becomes dominant. (The survey's clothing budget was based on a study of San Francisco professional classes' clothing expenditures.) As in previous CCT economics, intrinsically scarce items would be left outside the system.[16]

The published popular report concluded with the familiar assertion that the present economic system could not distribute such a quantity of goods and services; that installation of a suitable economy would mean the threshhold of a new era. New satisfactions would be developed, production of scarce goods would be increased, the quality of goods would be improved, and liberty would be enjoyed by most people.

> In other words, it would seem as if society is ready to produce and distribute food, clothing, shelter, etc., as automatically and easily as advanced civilizations today distribute water, and to concentrate its individual and collective genius on those vast unexplored fields which up till now have been surveyed only by favorably placed specialists.[17]

Organization: 1934–38

With attention in 1934 focused on undertaking the survey, organizational growth and activity were modest. Extrapolating from the gross receipts listed in that year's Annual Statement, it would appear that about four or five hundred members paid dues to the New York headquarters. However, as will be seen later, due to the CCT's organizational structure—or lack of it—this figure is no indication of the number of its adherents.

The period also served increasingly to define the organizational and theoretical distinctiveness of the Continental Committee and Technocracy Inc. as the two wings of the movement. After the Chicago fracas in June, 1933, relations between the two groups continued to worsen. Finally, on April 14, 1934, a

Bulletin from the CCT announced that the forthcoming survey must not be associated with the term "technocracy."

> It would be disastrous to have the sober and accurate findings of the survey ascribed to Howard Scott or Frank A. Vanderlip, early priests of technocracy; connected with "ergs" or thought of in the same mental breath with "sexual money."

Local units and divisions were urged to use their own discretion in acquainting the public "with the drastic differences between Technocracy Inc. and the Continental Committee." The terms "Plan of Plenty" and "Continental Committee" were to be emphasized "and the word 'technocracy' relegated to its historical relevance." Subsequent literature issued by the New York office dropped the "on Technocracy" from the organization's title (although it was retained by some of the divisions), and the pamphlet *The Plan of Plenty* was reset with the discarded term deleted.

The organizational problems motivating the public dissociation with the term "technocracy" are made explicit in the final paragraph of the April 14, 1934, *Bulletin*:

> At present we are not only suffering from the hostility of Howard Scott, or at least of some of his organizers, but also from his errors. This double weight feels like a millstone, in the East. We hope to create a strong organization here, once we have been released from this handicap.

Technocracy Inc. returned the fire on July 4, 1934, in a mimeographed release entitled "Continental Committee." Beginning by labeling the Continental Committee, in European terms, a "right deviation" [defined as "an abortion promulgated and financed by the dominant racket of any particular area, in order to slow down the development and progress of any new movement"] "sponsored and promoted" by the "nationalized Tammany political machine of the Roosevelt-Farley administration" in the person of Langdon Post, it continued by implying that the CCT filched its contacts from Technocracy Inc. files and con-

cluded by bestowing the title "Continental Committee on Advice" on the renamed group.

With the completion and publication of the National Survey of Potential Product Capacity in February, 1935, the Continental Committee made a last attempt to carry its message—finally based on cold fact and hard figures—to the American people. Stuart Chase reopened the whole issue of "Our Capacity to Produce" in the February, 1935, *Harper's Magazine,* emphisizing and commending the findings of the survey. Articles in *Common Sense* by Loeb and Frazer centered around the survey; press releases and newspaper publicity followed it. Byron N. Scott, congressman from California, inserted an eight-page statement on the survey in the *Congressional Record* of July 1, 1935, and Wisconsin's Representative Thomas R. Amlie devoted considerable space to the NSPPC in his *Forgotten Man's Handbook*. Charles Beard began his review of the survey: "This is the most important book of the twentieth century that has come within my ken."[18]

The Continental Committee's leadership turned again to organizational matters, which by this time could only be described as chaotic. Despite the efforts of Loeb, Bonner, Pratt, and others in the local units, they would remain so until the committee's demise. The complicated system of three classes of membership and dividing dues (paid in small installments) among local unit, state division, and national headquarters multiplied bookkeeping problems and encouraged nonpayment. Local units were allowed, or took upon themselves, almost complete autonomy, issuing their own membership cards, setting and collecting dues, issuing literature, and making or breaking alliances with other reform, radical, and political organizations. There was no way of knowing how many "members" the Continental Committee had, and both the public to which it was addressing its appeal and its own membership must have been hard put at times to know precisely what it was all about. By the middle of 1936, despite valiant attempts at reorganization, Loeb confessed to a

friend: "I am not an organizer. I may be a writer. I am trying gradually to edge out of the organization work."[19]

Units of the Continental Committee (whose New York stationery bore the title "Continental Committee for an Economy of Abundance" after 1935) had been set up in Denver, Minneapolis, and Milwaukee; the Canadian Technocracy Association, a CCT affiliate, had groups in Edmonton, Calgary, and Lethbridge. These units were relatively stable and in some instances continued as discussion and education groups even after the national committee faded away. But in most cases they were never more than small groups of people, able to schedule lectures when Frazer or Loeb passed through and to distribute literature. The Denver unit published Willard Hawkins' *Castaways of Plenty,* a parable of plenty that was popular with radical groups years after the committee had disappeared. The Chicago "unit" was no more than a few individuals. Other small units may have existed for a time, but no records exist. From as far away as Fairbanks, Alaska, a group requested a charter in 1935.

Only on the West Coast did the Continental Committee on Technocracy succeed in becoming anything like the organized expression of a mass movement. There, consequently, its organizational successes and failures were thrown into bold relief. After early organizational successes the California Division was soon in trouble, for its H. R. Hadfield, feeling that months of educational effort in the form of study groups was leading nowhere, split from the committee early in 1934 to form the National Technocracy League, U.S.A. "ACTION and ACTION NOW—Apply Political Pressure" became the league's slogan. Apparently George Vail Steep, the CCT's California Division chairman, joined the league, splitting the California membership. On March 6, 1934, in accordance with its declared approach, the league, in a printed letter "to all liberals," announced its endorsement of Upton Sinclair for governor of California.[20]

After Sinclair's defeat and the collapse of his EPIC movement, the Continental Committee began to organize again in California, with some success. But the episode resulted in the defection to Howard Scott of some of its talented members. Pratt

thought that Technocracy Inc. could not have been launched in California except for the CCT split over Sinclair.[21]

Hardly had the California Division begun to rebuild its membership when another mistake occurred. An attempt was made to recruit members of the phenomenally popular Utopian Society, which was by then (1935) rapidly dissolving. This move disgusted those Continental Committee technocrats anxious to escape the "crackpot" label; the former Utopian leaders who did affiliate seemed undesirable, in one case even stealing organizational funds.[22]

As a result, by October, 1935, Loeb wrote to Bonner, then in California:

> Looking back on the past two years, our failure in California can be blamed largely on the utter inability of the founders of the California Division to enlist leaders or even to hold their own membership.[23]

Pratt confirmed that the failure was complete; he reported that there were no units of the Continental Committee left in California. He felt that confidence in the CCT had been shattered by political maneuvering and that some of the best and most influential people transferred from various other organizations to Technocracy Inc. Superior organizational techniques were noted on the part of Scott's Technocracy, especially its precautions in the selection of unit leaders. In contrast, the Continental Committee in the past had been exceedingly careless in this regard.[24]

In spite of this dismal history, the Continental Committee had one more chance in Southern California, when a series of defections by leaders and members of some Technocracy Inc. Sections took place. If the Continental Committee had lost members through its own ineptness, Howard Scott's ideology and tactics had injured his organization. As early as October, 1935, Bonner could hopefully tell Loeb that there were a number of reasons for a moderate amount of good cheer:

> One is that Scott spoke here the other night, in Hollywood Bowl, and as a consequence we got some new members. . . .

> Several letter writers point out the fact that he does not try to conceal his belief in direct action. They prefer our educational tactics.[25]

By the end of December, 1935, a Provisional Advisory Council of seven former Technocracy Inc. Section leaders had been formed and the entire Montebello Section had come over to the Continental Committee. Other Technocracy Inc. Sections were expected to follow. But Bonner, in California, warned that the new organization might again evaporate unless something definite was done to involve the members and hold their allegiance: "I warn you however, that the people expect a *definite* educational program—something in the form of a step-by-step training." The revitalized California Division was given a further boost by Loeb's lecture tour early in 1936; in February, Bonner reported thirteen active groups. Attempting to learn from the disasters of all the movements that had swept the state in rapid succession, "we are inviting no one who believes that the millenium is just around the corner."[26] Early in 1936, Charles Bonner reported to the New York office on the type of people being recruited into the California groups:

> The people interested in joining the Continental Committee are not the usual radical fringe. They are a large and representative section of the middle class of the state. Most of them are intelligent and realistic. They are willing to work patiently, and are not likely to be diverted from their course by emotional appeals for immediate action.[27]

While the Continental Committee went through its recurring cycles of success and failure in California, further up the Coast, in the Pacific Northwest, it had achieved the dimensions that had seemed to be forecast for the whole country in the enthusiasm and response of 1932–33. For three years, the Washington State Division of the CCT filled the role of a statewide movement, with some influence also in neighboring Oregon and Idaho. At its height, membership has variously been estimated as from four or five thousand to "hundreds of thousands." The

organization officially claimed 25,000, "difficult to count because the clubs grew faster than the central office could work." Centering in Seattle, Everett, and Spokane, it also had units in Yakima, Tacoma, Kirkland, Monroe, Pasco, and perhaps elsewhere. Early in 1934, fourteen of its Technocracy Clubs were operating in Seattle; by 1935 there were eighty-five clubs throughout the state, the largest with 500 members. The first state convention, in March, 1934, drew 250 delegates and elected Dean Richard G. Taylor, of the University of Washington's College of Engineering, to the presidency of the division. The third convention, in February of 1935, was attended by 350 delegates and 200 visitors. The division's newspaper, *The Western States Technocrat,* reported an audience of 7,000 for a speech by Loeb in Seattle in February, 1935, and felt that attendance of "somewhat over 1,000" at a Spokane lecture might seem small to Seattle Technocrats, but "when the conservative nature of the people east of the mountains is taken into consideration, the showing was entirely satisfactory."[28]

The Western States Technocrat was in itself a sizable undertaking; by 1935 it had become a sixteen-page weekly tabloid, with comment on world and national news as well as expositions of technocratic theory and reports of the Continental Committee's activities. In addition to the newspaper, the division had its own radio programs in Seattle, Spokane, and Yakima, financed by a separately incorporated Radio Foundation. Most of the money for the Radio Foundation came from the sale of coffee, packaged under the "Plenty for All" brand. "Plenty for All" stamps were also printed as a publicity device. Still another undertaking of the Washington State Division of the CCT was the Continental Producers' and Consumers' Foundation, which succeeded in setting up a cooperative food processing plant. At its peak, the Washington state headquarters of the CCT needed fifteen volunteer workers to keep up with the necessary paperwork—a larger staff than the national headquarters of either the CCT or Technocracy Inc. ever required.

This unique flowering of technocracy in the state of Washington was probably due to a combination of several factors: an

area and a history prepared for liberal/radical thought and action, the caliber of the leadership initially attracted, and organization early enough to take advantage of the mass interest aroused by the 1932 publicity. Probably of significance in the Seattle area, where the organization began, were the availability of free meeting places and a network of pre-existing Community Clubs which rapidly became forums for technocratic ideas and nuclei of Technocracy Clubs. Seattle, severely hit by the Depression by 1932, "was a union and public power city, schooled in economic thinking for the public interest." Some of the people who became active in the Continental Committee had worked on the old *Union Record* newspaper; others had been active in public power battles and were then, or later became, prominent in liberal Democratic party politics in the state.

The same 1932 *New Outlook* articles by Wayne Parrish that had electrified the rest of the country had had their effect in Seattle, too. A businessman, president of a chain of laundries; his brother, a lawyer; and another lawyer called a meeting late in the fall to discuss the new economic ideas. Gathering in a hotel cafeteria, they in effect provided themselves with a free meeting hall. Calling itself the Technocracy Club and meeting every Friday noon, the group immediately found an overflow audience and an abundance of speakers: "Lawyers, ministers, professors from the University of Washington and colleges, labor and city light people, old socialists, old single taxers."

The officers of this first Technocracy Club, later to become the nucleus of the state organization, consisted almost entirely of professionals: the laundry president, two lawyers, a member of the University of Washington's engineering faculty, a Congregational minister, a consulting engineer, and an architect.

When the January, 1933, events in New York resulted in the two national organizations, the Seattle group took out memberships in both. Contacts were made with other technocracy groups both in the state and elsewhere. The Continental Committee gained the organizing edge over Technocracy Inc. when, after the Colorado conference in July, 1933, Harold Loeb and Felix Frazer arrived in Washington with their freshly drawn up *Plan*

of Plenty. When Howard Scott went to Seattle in the spring of 1934, the Technocracy Clubs had already affiliated with the Continental Committee. Except for a few defections, that allegiance was confirmed by remarks allegedly made from the platform by Scott about the lack of democracy in his version of the technocratic state.[29]

As in the case of the Continental Committee membership in general, this most successful branch of the movement was predominantly middle class in active membership and leadership. Harold Loeb recalls a distinct impression of the Continental Committee's members as including two types of people, not mutually exclusive: old-line non-Marxian socialists and radicals, and, occupationally, white collar workers, small shopkeepers, and professionals. Because of its mass organization, there were proportionally fewer traditional socialists in the Washington Division than in the CCT's other units.[30]

Late in 1934, when it was becoming obvious that the success in Washington was not being duplicated elsewhere among the Continental Committee units, the state and national leadership decided to send Florence Mayne, lawyer, secretary of the Washington State Division, and popular and successful radio speaker on technocracy, on an organizing tour. The tour began with a send-off meeting filling the Seattle Civic Auditorium, but the results in the ensuing year were uniformly disappointing. Long stops were made in Portland, Los Angeles, Denver, Kansas City, New York, Milwaukee, Minneapolis, and Des Moines; shorter ones elsewhere. But despite cordial reception and intensive work, permanent, growing organization proved impossible to establish. Recalling the effort years later, the former national organizer wrote:

> The personnel seemed unavailable. The interested persons everywhere were either persons so busy with their own work and civic and political affairs that they had no time, or they were unemployed or elderly persons who had not the organizational ability. . . . Sometimes it seemed the people had just settled into their misery to wait it out. They

> were skeptical of remedies, including the remedies the New Deal was trying. Yet they thought maybe things were getting patched up, and the WPA was about to start.

The opportunity for technocracy, at least as represented by the ideas and approach of the Continental Committee, seemed to have been lost throughout the country at large, although the national leadership made several more attempts to recreate it. When Florence Mayne returned to Seattle in October, 1935, it was to a disrupted and declining movement:

> In a cheap office in an old building . . . she found a lonely executive secretary, Bill Moshier, sad and dispirited. The office was bare. Files and typewriters had disappeared. The grand organization was gone, and forever.[31]

By early 1935, the Washington State Division, at least in its newspaper, had become strongly politically oriented. The slogan "Technocracy in '36—We're On Our Way" repeatedly appears, and the implication of the assertion that of all the CCT units "only Washington is sufficiently organized to carry a majority vote" is clear. In its issue of March 5, 1935, *The Western States Technocrat* noted that the various "cooperative and self-help" organizations had a signed membership of over thirty million, enough to win the next election—which was a necessity since Roosevelt had turned to the right.

> Any liberal victory of a political nature is a step toward Technocracy. A coalition victory embodying substantial features of Technocracy with equitable recognition of other participating groups would be a decided victory for Technocracy.

The article ends on a less certain note, reaffirming that political action could bring only palliative relief but adding that "individually, a million Technocrats have a great duty to perform."[32]

"Politics" had from the beginning been anathema to Howard Scott; the word had been his choice epithet for dismissing the

Continental Committee and all its works. And it was precisely the issue of political action which was to provide the precipitating cause for the destruction of the CCT's Washington Division. Correspondence between the division and the New York office reveals that as early as January, 1935, internal factionalism had been building up. There was discontent over the operation and financing of the radio programs and the coffee business, dissension over whether these activities and the co-op were or were not diverting energy from more basic issues, disagreement between the educational and political action advocates, and just plain personal antagonism. By April the New York office revoked the Washington Division's charter. In an attempt to straighten things out, Harold Loeb flew out from New York. But the division split over the issue of political action, most of the membership going over to the newly formed Washington Commonwealth Federation, a successor to the Commonwealth Builders of 1934. Although it became powerful in state politics, the federation was taken over by the Communists in the late 1930's, a fact that caused its destruction after the Second World War.

To bolster the organization and spread the word still further, the CCT arranged an extensive speaking tour throughout the Mid- and Far West for Harold Loeb from the end of January to the middle of April, 1936. In between lecturing and trying to convince the local groups to send dues and records to New York, Loeb also was writing the first of a series of study course lessons. Bonner had repeatedly emphasized the necessity for such lessons to keep an avowedly educational organization functioning, and the rival Technocracy Inc. had begun to issue its *Study Course* in 1934.

At the conclusion of the tour, reorganization was undertaken in earnest. All of the Regional Divisions except Los Angeles, Seattle, Spokane, Edmonton, and Portland were abolished; all the local units in other areas were to report and pay dues directly to the New York office. There, an office manager was hired to assist an overworked secretary. The twenty-two study course lessons—one or two sheets, and a question sheet, covering basic economics and the method and conclusions of the National

Survey—were being sent out regularly to Pratt for printing. By July, two hundred students had been enrolled with the New York office, and it ordered five hundred copies of Lesson #14.[33]

But optimism was short-lived. While good crowds had turned out to listen to the executive director of the Continental Committee, the tour had not had the expected organizational results. In May, 1935, Seattle leaders reported that they had "managed just to keep our heads above water. Memberships are not coming in as we had hoped, nor monthly contributions either." Two months earlier, Pratt had admitted that Technocracy Inc. had outbid the CCT in Southern California; Scott's group was expanding, and in so doing, impeding the progress of the CCT.[34] The old organizational weaknesses persisted: lack of follow-up after lectures, entanglements with other groups, nonpayment of dues. Exhausted, the leadership in California and Washington reported to New York that there was no further potential in those areas; Californians had been made apathetic by the succeeding waves of movements in the past three years; in Washington there was a continuing chaos of competing radical, populist, Utopian, and third party groups.[35]

The official monthly organ *The Answer,* which together with the study course had been hopefully looked upon as the core of the reorganized movement, was in trouble, too. At its peak, before the name was changed, it had had 4,700 subscribers and bundle sales of 2,000–9,000 copies. By 1936 subscriptions had declined to 1,200 and bundle orders were practically nil—a further instance, Pratt complained, of local units' lack of interest in the parent organization.[36] Three separate drives brought in a total of six new subscriptions.

The embarrassment did not continue much longer. Illness forced Pratt to discontinue publication in September, 1936. By December, the several committee members appointed to look into the problem could not agree on the future of the paper, and the remaining subscribers were apparently turned over to another publication.

Finally, even the New York headquarters succumbed. Dues were not coming in, income from sales of the *Chart of Plenty*

and the *Report* of the NSPPC had ceased, literature was gone and needed to be reprinted, and Loeb was unable to continue making up the deficit. Therefore, he recommended merger with the American Commonwealth Federation (a populist-progressive Third Party which he had helped found) and the People's League for Economic Security. On October 22, 1936, he wrote to Bonner: "The Continental Committee is no more"—the voting members had accepted the merger.

The organizational picture for the next two years is one of complete confusion, of constantly changing "paper" groups, none of which amounted to much more than letterheads with distinguished lists of professors and liberals. Without the old Plan of Plenty around which to unite, the League for Abundance, the name of the group into which the CCT had supposedly merged, evaporated after a series of dazzling intellectual free-for-all meetings.

A few scattered embers continued to glow into 1938 or 1939. Small groups kept together in Milwaukee, Seattle, Spokane, Portland, and Los Angeles, sometimes under the League for Abundance or similar titles, sometimes under the old Continental Committee name. Diffidently writing to ask into just what organization he was signing up some new members, an enquirer from Milwaukee received an honest reply from Harold Loeb: he really could not say.[37]

In the Northwest, although Howard Scott continued to appall as well as appeal to his audiences, his organization began to pick up the remnants of the Continental Committee's Washington Division.

> Scott just paid us a visit leaving behind him the usual conflict of opinion and a group of us formerly known as Technocrats who have to cringe in embarrassment when acquaintances assume that he is connected with us in some way. His groups are growing here, having gathered in a good many of our former members.[38]

Washington was to become a stronghold of Technocracy Inc. as it had been of the CCT. In the 1960's, the *Northwest Tech-*

nocrat of Seattle was still being published "by volunteer labor on Technocracy's own press" as a quarterly glossy-paper magazine.

Harold Loeb, Felix Frazer, and others of the New York Committee continued to meet occasionally and talk; Loeb answered letters from old friends and isolated local groups. But he too had been a factor in the Continental Committee's decline, for he had lost faith in his own thesis. Over a period of months, Loeb had felt a growing sense of uneasiness about the basic assumptions of technocratic economics. The issue was suddenly crystallized by a question from a young college instructor at the conclusion of Loeb's speech in Minneapolis during the 1936 tour. The question itself (Depending on the amount of effort expended, could not anything be considered relatively "scarce" or "abundant"?) was hardly startling and could have been answered by any convinced technocrat. But it seems to have coalesced and precipitated long-gathering doubts. At that moment something changed; the belief was gone. Loeb continued to carry on, but he was glad to get out of organizational work and turn to raising chickens in the country, ruminating on all the questions of economic theory which now seemed so important. Nine years of thinking, writing, wartime experiences, and further reflection resulted in 1946 in *Full Production Without War,* a book well within the tradition of orthodox economics.[39]

The Continental Committee was gone. But like the last explosion in a diminishing cannonade, one more curious episode was to punctuate the silence. Paul Brown Corr, a journalist from St. Louis, educated at Lawrence College in Wisconsin, had joined Technocracy Inc. in March, 1933. He had been executive secretary of its Regional Division 9038 and director of the St. Louis Section. Appointed director of the national organization's Division of Publications, he was responsible for the initial issues of the magazine *Technocracy,* appearing in 1935. In 1936

he directed the Central Tour Committee, which set up the itinerary for Scott's midwestern lecture tour that year.[40]

But in September of 1938, Corr resigned from Technocracy Inc. In his letter of resignation, he pointed out that for the past five-and-one-half years he had been sincerely convinced that Technocracy Inc. "was the most constructive organization in America." However, during that time, he had been forced to reach the conclusion that policy and administrative weaknesses, personal antagonisms and intrigues, had made the organization ineffective and repelled support.[41]

After his resignation from Technocracy Inc., Corr approached Loeb about the prospects of reviving the Continental Committee. A letter written to a Milwaukee member at this time clarifies Corr's position. He felt that the CCT's brand of technocracy, still in demand by people requesting the now-unavailable literature, was the only bulwark against what he regarded as Scott's dictatorial movement.[42] Harold Loeb did not really trust Corr's motivations, suspecting a membership raid on the part of Howard Scott's group; but he handed over the list of former CCT members: "I saw no harm in giving out the names of would be do-gooders who had no bent for direct action. They might, I hoped, infiltrate his organization with good will."[43] (Whatever the motives of Corr, he never reappeared in Technocracy Inc.)

Accordingly, in the middle of December, 1938, above the signatures of Harold Loeb, Felix Frazer, Charles Steele (pseudonym of the CCT's communications engineer), and William B. Smith (one of the NSPPC's researchers), mimeographed *Bulletin I, Second Series* was sent out to the remaining organized sections, directors, and former sustaining members. Surveying the history of the previous two years—the merger, lapse of activity, and straying from the central thesis, Paul Corr's volunteering of services—"the undersigned members of your New York Executive Board, impressed by the number of letters that continue to arrive urging the desirability of carrying on, and by the obscurity of the economic outlook, have decided therefore, to put the question to the membership." Included with the *Bulletin*

was a questionnaire asking (1) if a name change were favored, (2) for suggestions for organizational form and activity, (3) questions covering basic matters of policy, and (4) whether the respondent favored such immediate measures as a pension system and annual minimum wages, and (5) for his reaction toward organized labor, both A.F. of L. and CIO.[44]

A couple of dozen replies were received. The name game was brought to its ultimate absurdity: The Continental Committee emerged as "on Techonomy." But there was to be little chance for converting technocrats to techonomats: Corr had to return his borrowed office furniture to Loeb before it could be seized for nonpayment of rent. Nothing more is known of the Continental Committee on Techonomy.

The Continental Committee had died, but the technocratic movement had not. The story of the organization, the theories, and the people of Howard Scott's Technocracy Inc. as they survived the end of the Depression, the Second World War, the Cold War, and internal organizational upheaval is one which, if only a historical footnote, is nevertheless seldom dull.

V. The Technological Army of the New America

Alongside a highway in western United States or Canada today, a visitor might notice a circular sign with an S-shaped line dividing it into red and silver colored segments. If the traveler knew where to look, he might find the same emblem on storefront office windows, on the doors of gray-painted automobiles, and on business suit lapels. It is the Monad, the symbol of Howard Scott's Technocracy Inc.

From the vantage point of early 1934, an observer attempting to predict Scott's organizational prospects would have been justified in delivering a negative verdict. The fizzling of the Technical Alliance, the collapse of the Energy Survey at Columbia, the disappointment of the Hotel Pierre Speech, and the disruption of the Chicago Continental Convention hardly would have created confidence in Scott's leadership or organizational abilities. Yet from that date (1934) he was to head an organization which increased steadily in size and activity for six or seven years, maintained itself on a stable plateau for another half-dozen years, and after bitter internal dissension still continued to function, although greatly reduced in numbers, into the 1960's.

Organized Growth: 1934–41

Although Howard Scott's Technocracy had been incorporated in March, 1933, little in the way of formal organization seems to have been accomplished throughout the year. In 1934, Scott, aided by a secretary, Helen Hockett, and a Los Angeles newspaperman, Frank McNaughton, was first able to solidly establish Sections of Technocracy Inc.

Early that year, Helen Hockett, acting as tour director from Chicago, had contacted scattered groups and individuals supporting the movement—its two "wings" had not yet solidified across the country—as well as civic and service organizations that might have been interested in hearing Howard Scott speak. The preliminary itinerary as of February 23, 1934, shows only four host groups clearly identified with Technocracy Inc.: in Chicago, St. Louis, Kansas City, and Phoenix. The initial speech in Cleveland was under the auspices of the local Bellamy Society; in Ann Arbor, of the University of Michigan's Vanguard Club; in Everett, Washington, of the Technocracy Club, in Los Angeles, of the "combined clubs and societies interested in Technocracy." In Los Angeles, there were so many requests that final plans could not be made in advance. The tour was scheduled to proceed westward from New York through Cleveland, Ann Arbor, Chicago, St. Louis, Kansas City, Omaha, Salt Lake City, Phoenix, and points in between to the Southern California area, Portland, the Seattle area, and Vancouver, B.C.[1]

Arriving in Southern California, Scott and Miss Hockett at last were able to solidify something approaching a base for Technocracy Inc. Five thousand people turned out to hear Scott speak at the Los Angeles Shrine Auditorium; thirty-six converts formed the first Section in the area. In a few weeks, six Sections were formed, and in May, 1935, Technocracy Inc. claimed that new Sections and provisional groups were forming there at the rate of more than one a month.[2] The requirement for a Section was twenty-five members; dues were five dollars a year, of which half went to the national headquarters and half was retained by the local Section. Thus, with even a half-dozen strong Sections in Southern California, a start could be made on further organizational work.

The recruitment to Technocracy Inc. was plagued by a high rate of turnover from the beginning; some splits and defections have already been noted. No official statements of membership or Section listings were ever given out by Technocracy Inc., but available evidence suggests that a high point of thirty to forty Sections may have been reached in Southern California during

the years 1934–35; later, about twenty Sections seem to have been active in the Los Angeles area alone, from the late 1930's through the 1940's.[3] (In 1936 Pratt estimated Technocracy Inc.'s membership at five thousand. It is not clear, however, if he was referring to the organization nationally or only to California.)[4]

Technocracy Inc.'s ability to organize successfully in Southern California was helped by the efforts of two talented local leaders, Frank McNaughton and Jonathan F. Glendon. McNaughton, a newspaperman, was one of Scott's first supporters in the Los Angeles area. An effective speaker, he soon left the platform to devote his energies to *The Technocrat,* the first publication of Technocracy Inc., issued for several years as a mimeographed weekly and later becoming a monthly printed publication. Glendon, an actor, had been an early Technocrat, then joined and became president of the short-lived Utopian Society of 1933–34. In 1934, he resigned from the Utopians to become an organizer for Technocracy Inc. Acclaimed as a popular speaker, by 1936 he had been sent on an extensive tour of cities and towns in the northwestern United States and Canada.[5] The enthusiastic activities of a well-known and respected Los Angeles physician and his family were also credited for some of Technocracy Inc.'s early success in the area.

Somewhat more moderate success seems to have been met in Washington—the rival CCT was at its strongest here—but in the British Columbia area around Vancouver, Technocracy Inc. gained another stronghold in 1934. Here, Robert Cromie, publisher of the *Vancouver Sun,* was sympathetic to the cause, favoring Scott and his organization with extensive publicity. In Vancouver, another journalist, L. M. Dickson, became a competent local leader and launched another mimeographed publication, *Technocracy Digest.* Other areas, too, began coming into the organization—more rapidly than the New York headquarters staff could handle the paperwork, if reports are to be believed.

Two more mimeographed publications appeared in 1934; *The Monad* issued by the Kansas City Section, and *The Wisconsin Technocrat* from Milwaukee. The latter was short-lived, as its editor and his associates went over to the CCT at the end of the

year. *The Monad,* too, was gone by the end of 1936. The Kansas City Section became weakened by a split led by two people who had compiled the first Technocracy Inc. pamphlet, *Some Questions Answered.* By the end of 1934 they had rebelled at the sectarian attitude of Technocracy Inc. and had formed the "Economic Security League," a group friendly to the Continental Committee on Technocracy and other "abundance" groups.

The New York Headquarters of Technocracy Inc. responded quickly to the initial organizational growth. A set of bylaws to regulate Section activities was issued, as well as forms for Section reports of dues and other finances, meetings, membership, and literature. In March, 1934, the official *Study Course* was announced, and mimeographed lessons began to be issued; the first sixteen of an eventual twenty-two were completed by the end of the year. By July, membership cards had been printed. In October the headquarters moved into larger office space, and on December 15 it announced to the membership that a sufficient staff had been recruited to set up separate departments to handle more efficiently the demands imposed by constantly increasing growth. Five Regional Divisions and their directors were listed.[6]

At one point at the end of 1934, however, the demands of growth seemed not to be supported by funds, but the financial crisis must have been met in one manner or another. Since financial reports were never issued to the membership, the monetary situation of Technocracy Inc. became a source of rumor outside the organization and a course of dissension within. Stories circulated of a Park Avenue "angel" for Scott, but no evidence was ever presented. Whatever the case, the headquarters was never able (or willing, according to the allegations of some members) to support full-time organizers in the field or to subsidize the field publications. (And, at least until the middle of 1938, there was little evidence of affluence about the headquarters. Offices were modest. The first official pamphlets and the *Study Course* had to be printed by various local Sections. For several years, the main items dispensed by headquarters were copies of the *Introduction to Technocracy* and *ABC of*

Technocracy, which had been bought in quantity from their commercial publishers at remainder prices and were sold to members at a fraction of the original listing.) In May, 1935, Technocracy Inc. was at last able to launch its official publication, *Technocracy*. Announced as a monthly, its publication was erratic, finally ceasing with the December, 1942, issue. From its pages, supplemented by reports in the local magazines and recollections of former members, can be gleaned the story of the organization's growth and the motivating spirit that infused it. Particularly important are the descriptions of Scott's annual tours which reflected the current strength of his following.

Howard Scott's departure for the West in October, 1935, on board a Santa Fe train contrasts strikingly with the hitchhiking atmosphere surrounding his trip the previous year. Evidence of organization was by now visible as delegations of members met the train. Southern California was still enthusiastic; ten thousand people turned out to hear Scott speak at the Hollywood Bowl; a flurry of membership and public meetings followed. A "Technocracy Day" was proclaimed at San Diego's California Pacific International Exposition. Heading north after a speech at San Francisco, Scott spoke in Portland a half-dozen times and in various cities and towns in the state of Washington. To consolidate organizational gains, McNaughton of Los Angeles traveled with Scott, stopping off again at all the new groups on his way back south. Audiences in the three western provinces of Canada seemed to welcome Scott almost as enthusiastically as those in Southern California.[7]

With the conclusion of this tour, the main centers of strength had been tapped: Southern California and northwestern United States and Canada. The Cleveland area was already organizing, and other areas would later be organized with small clusters or isolated Sections. But the main increases in strength would come from the areas already "opened up."

A 1936 central states tour by Scott apparently was not too successful in terms of stimulating new Sections, although already existing units in St. Louis, Kansas City, points in Wisconsin,

Chicago, Detroit, and Cleveland were visited. In the same year, California's Jonathan Glendon visited some fifty-five points in the Northwest to solidify the organization there.[8]

By the time of Scott's third tour, in August, 1937, emphasis was beginning to shift to follow-up work by local speakers and organizers and to the establishment of study classes. The tour, encompassing thirty Canadian cities in four provinces and forty American cities in eleven states, covered most units of the organization. The average attendance at public meetings was 511, with a maximum of 6,200 at one unspecified location.[9] Besides reports of new Sections chartered, tangible evidence of increasing Technocracy Inc. activity existed in 1937. Three additional magazines were launched: *The Northern Technocrat,* in Edmonton, Alberta; *The Foothills Technocrat,* in Calgary, Alberta; and *Streamline Age* in Phoenix, the latter in printed format. By this time, Los Angeles' *Technocrat* had become a printed monthly, as had Vancouver's *Technocracy Digest.* Two other successful local Section publications were Portland's *Section Post,* begun in 1936, and Cleveland's *8141,* which had started as a mimeographed monthly in 1935. Other publishing projects indicate both an increase in strength of the Sections undertaking them and an organization widespread enough to support them. Saskatoon and Winnipeg each got out a printed edition of the official *Study Course,* and Vancouver published a number of pamphlets.

In 1938, as a new recession persisted in the United States, severe drought bankrupted the economy of Canada's western plains, and war clouds gathered over Europe, it must have seemed to many that Scott's prediction of the end of an epoch was at the point of being fulfilled. (The drought and recession were explicitly recognized by the Technocrats as factors in the growth of Technocracy.)[10] These external events were reflected in a burst of Technocracy Inc. growth and activity. At the outset of Scott's 1938 tour, it was announced that because of the growth of the organization, only key centers could be visited. Eighteeen were selected. "These cities (with one or two exceptions) are the focal points of from five to thirty units of Tech-

nocracy." The list thus gives a good indication of the geographical distribution of Technocracy Inc.'s strength in what was probably its peak period: Cleveland and Akron, Ohio; Appleton, Wisconsin; Winnipeg, Manitoba; Regina, Saskatoon, and Prince Albert, Saskatchewan; Edmonton and Calgary, Alberta; Vancouver and Victoria, British Columbia; Seattle, Washington; Portland, Oregon; Salt Lake City, Utah; San Francisco, Los Angeles, and San Diego, California; and Phoenix, Arizona.[11]

The tour was reported in superlatives in Technocracy's magazines, which sometimes quoted at length from extensive press coverage. An Akron newspaper was quoted as saying "We have no desire to poke fun at either Scott or Technocracy" and reporting soberly:

> Alice Longworth Roosevelt, princess of the Oyster Bay Roosevelts, spoke to a bored and scanty audience at the armory Thursday night. Howard Scott, the originator of Technocracy, addressed over 2,500 people from the same platform a night earlier.[12]

In Regina, reportedly more than one-third of an audience of more than six hundred remained for recruitment after the lecture; in Vancouver, about five hundred; and in Los Angeles, where the 6,900-seat Shrine Auditorium was filled, somewhere between one- and two-thousand people interested in becoming Technocrats stayed for the organizational meeting. Enthusiastically, *The Technocrat* could claim: "Every indication shows that the impetus resulting from this 1938 tour is skyrocketing Technocracy Inc. into first place as the dominant organization in both Canada and the United States preparing for social change."[13]

The *Regina Daily Star* seems to have caught the mood of the moment:

> When Howard Scott, a tall, scowling American engineer first visited Regina some years ago and expounded his theory of Technocracy he was greeted with mild tolerance, good nature, and some seriousness.

> Friday night the same Howard Scott, grown a little older, perhaps, but still scowling, still speaking in a cold, metallic style that was all the more terribly effective in view of the shuddering "facts" he produced, told a crowd of more than 600 that his organization is growing so fast that before long neither Canada nor the U.S. could discuss war without permission of this organization.
>
> He predicted that chaos was just ahead, a matter of only a few years now. The situation was too far gone for any political theory to save it.[14]

Besides the word of Howard Scott, there was other evidence of his organization's expansion. By 1938, the locally edited and published field magazines were polished, printed publications, seven in all; Phoenix's *Streamline Age* folded in 1938, but another new publication had appeared, Winnipeg's *Prairie Technocrat*. By now Los Angeles' monthly *Technocrat* was appearing in modern sans-serif typography on twenty pages of heavy-coated stock. Other Section publishing ventures continued to grow: Vancouver brought out a new pamphlet, Salt Lake City and Edmonton each issued several printings of pamphlets by local people, and Winnipeg put out a fourth edition of the *Study Course* that was to go through five printings under its auspices. In addition to the formation of new Sections, existing ones were expanding and moving into new, larger offices.

In May, 1938, Technocracy Inc.'s headquarters—changing its title from General Headquarters to Continental Headquarters (CHQ)—moved from the old offices at 250 East 43rd Street to larger quarters at 155 East 44th Street, New York. (But the move necessitated a special financial appeal to the membership.)[15] Its magazine *Technocracy* managed to publish five issues that year, the only year except for 1935 in which it got out more than three. Beginning in 1938, all pamphlet publication was gradually taken over by CHQ. By the end of 1940, publication of the *Study Course* was also moved to New York.

The last great spurt in the growth of Technocracy Inc. apparently took place in 1938. (In August, the "biggest growth of

membership yet recorded" was announced.)[16] Succeeding tours by Howard Scott were generally reported in more muted tones, and careful examination of published attendance figures shows in some instances a slight drop from the enthusiasm of 1938.[17] It seems that while the organization continued to expand, it grew at a slower rate and, with some exceptions, in the areas where it had already been established. A report to the membership at the end of 1939 claimed fifty-four new Sections chartered that year in cities and towns in eleven states and five provinces where Sections had not been operating previously. Section membership was reported at "new highs" and "close to one hundred" new organizers were authorized. More newspaper space was received by Technocracy Inc. than in any year since 1932. In 1940, Technocracy Inc. reported organizing efforts in Washington, D.C., Philadelphia, and several cities in upstate New York.[18] But no permanent Sections seem to have taken root in these areas.

Despite such occasional reports of organizational growth, Technocracy Inc. appears to have reached a stable point about 1939 or 1940. The headquarters magazine appeared three times in 1939, twice in 1940, once in 1941, and once again in 1942, its last issue. Its feature "In the Field," devoted to news of organizational activities, ceased with the October, 1938, issue. Former officers and members agree that the high point in membership was reached either shortly before or shortly after the Second World War, depending on the individual Sections involved. When Technocracy was banned in Canada in 1940, its four Canadian publications ceased; only the *Technocracy Digest* reappeared after the ban was lifted. Hints of decline are evident beneath the morale-building exhortations of a late 1943 report from CHQ. While the development in 1943 of "really adequate and impressive Section Headquarters with large trained staffs to operate them" is noted, it is admitted that this was made possible in many instances by the consolidation of several Sections. A complaint is registered about "static" membership enrollment and lack of sufficient circulation for the field magazines.[19]

Technocracy Inc. has never released membership figures, even

to its own adherents, nor has it published a comprehensive directory of all its Sections. From the fragmentary information available, probably one hundred Sections may have been in operation simultaneously. Minimum Section size was twenty-five; former members estimate average Section membership at one hundred persons. Thus ten thousand may represent a good guess at membership. Former members have reported that total membership probably had not exceeded twenty thousand at any one time and that about forty thousand people had been members at some time.[20]

Organizational Goals

If Technocracy Inc. was able to recruit between ten- and twenty-thousand people under its banner at one time, the next question is: for what were they organized? As in so many things surrounding the technocratic movement, the answer seems ambiguous at first. In the Hotel Pierre address, Howard Scott had said that "Technocracy has no theory of the assumption of power; it is not concerned with going any particular place." The competing Continental Committee on Technocracy insisted that Scott was trying to organize a dictatorship of technicians, "a conspiracy of picked men in key positions who would wait around to seize power by force when the economy collapsed."[21]

Technocracy Inc.'s statement of March, 1933, issued shortly after the formal incorporation of the group, had presented twofold aims: education and research, and establishment of an "association for mutual protection." The latter was explained as meaning the organization of a disciplined body" of all "functionally necessary" people who could "resist the forces of disruption" and keep society and economy operating during the coming crisis and transition to a technocratic society.

It is clear that the perspective of Scott and Technocracy Inc. throughout most of the 1930's was one of taking over from the price system when it collapsed. Scott's use of the phrase "two years" as the date of doom in the Hotel Pierre speech has been cited. Subsequent predictions were somewhat more cautious, but the inevitability of a not-too-distant collapse continued to be

dominant in Technocracy Inc.'s appeal. In the feature article of *Technocracy's* first issue, appearing in May, 1935, Scott put the date "some time between now and 1940." Later 1935 predictions by him set the time for change "within the next decade." From the platform in 1938 Scott predicted the collapse by 1942, and the same date had been used by him in a written prediction made in 1936.[22]

Given the prediction or assumption of collapse, Technocracy Inc.'s technological theory of social change could provide no logically derivable clues for the kind of organization and tactics necessary to bring about the new society, aside from strictures on technologically disruptive violence.

Technocracy Inc.'s explicit published statements on tactics and organizational goals were few and ambiguous, probably deliberately so. In part this may have been a matter of flexibility, of adapting to changing situations; it may have been part of a conscious effort to sustain an air of "high command" mystery around the organization's leaders; it might have been conscious deception to disguise conspiratorial aspirations—or the lack of any plans at all.

In the first issue of *Technocracy* magazine, after the standard disclaimers of political goals and identification with left- or right-wing movements, Technocracy Inc. described itself as "a continental organization, organizing a vertical alignment of all functional capacities necessary to operate the entire social mechanism of this continent." It stated that: "Technocracy Inc. may take political action, but not as a political party to participate in the political administration of the price system, but only as an orderly means of abolishing the price system."[23] A technicians' coup or a national referendum would fit equally well within the phrasing.

Early in its existence, Technocracy Inc. labeled itself as "The Technological Army of the New America." The military terminology was perhaps initiated by Veblen's use of the term "industrial general staff" for the engineers and technicians he counterposed to the captains of industry. The usage is consistent with the sometimes whimsical, often ironic tone Veblen habitually

used in his writings. But what did Scott mean—how seriously was he building an "army"? Could Technocracy insist that its only "war" was against poverty and insecurity, disease and illiteracy? This was precisely the defense made by Technocracy Inc. late in 1935.

In an article in *Technocracy,* the critics' charge that Technocracy Inc. aimed to "regiment the citizens of the Continent into a vast group of automatons" was termed as "the silliest and least justified of any that has been made." Technocracy conceded that a tight, well-disciplined organization was needed, for "in no other way can our new Technological Army win its battle against starvation, disease, and insecurity." But such an organization would not be "regimentation" as feared by the critics, rather it would represent the consolidated efforts of many people who, willingly and after long study, have agreed that only "a united stand under scientific leadership . . . can save them from chaos and bloody revolution." Asserting that it was not "a European *putsch,*" Technocracy claimed to be a "plan and method" belonging to North Americans:

> It was designed and constructed by them for their own use, and will finally have its principles and methods of operation installed by the free action of the vast majority of them.[24]

This is the published record. A look at what Technocracy Inc. was doing from 1935 onward, and especially the actions of its director-in-chief, may begin to unravel the contradictory strands in the fabric of the Technological Army.

Initially, the impression is more that of the leader haranguing the mob than of the general addressing his troops. The leadership principle was established early and explicitly. A policy statement on the back cover of the first *Technocracy* magazine announces that Technocracy Inc. is confident of the future because in America a leader always has arisen in time of crisis. The statement continues:

> Since the present threat of chaos is born of the disparity between technology and social advance, it is imperative that

> we look for new leadership in a technologist who has prepared himself and proven himself fit and unimpeachable. TECHNOCRACY INC. has such a leader.

A report of Scott's 1936 tour—he was by now publicly nicknamed "the Chief"—indicates his leadership was of such a caliber that it could not be fully comprehended by the membership because Scott did not make immediate demands, he did not compromise, and he seemed to have a disregard for the organization's growth. But Technocrats were finding out from experience what history shows to be axiomatic: "the leadership in a major social change must of necessity be misunderstood in its early stages."

> It is well to bear in mind that the social change approaching on this Continent will overshadow all previous human experience. It follows that there is required a leadership of a magnitude corresponding to the emergency.

The Chief's leadership qualities are based, apparently, both on skill and knowledge and on personal heroic qualities. The report of Scott's tour recounts that Scott was "called upon to speak authentically on practically all fields of human endeavor." Because of his knowledge, he was mistaken as a professional in such varied fields as medicine and banking, as well as in the many areas of engineering, when he spoke to professional audiences in each of these fields.[25] A widely reprinted testimonial to Scott was written in 1938 in the form of a letter by William Knight of the CHQ staff. In it, Howard Scott is described as "the most selfless human being with whom I have ever come in contact" and one who "would be the last man in the world to cherish the task of being a dictator." But why should he have such an ambition anyway?

> The fact is that he, and he alone, has been responsible for the birth and growth of Technocracy Inc.—is this fact not in itself a sufficiently big honor to satisfy the ambition of an exceptionally intelligent human being as he is?[26]

Such was the portrait of the leader. By the time of Howard

Scott's 1935 tour, the emerging organization had begun to take on a distinctive image. Departing from Chicago on the Santa Fe's aptly named "Chief," Scott was met along the route by delegations of Technocrats. At Kansas City, "the delegates all wore monad armbands and came to the salute as the Chief stepped down from the train." As more and more delegates appeared at stops as the train neared Los Angeles, fellow passengers showed "growing respect" for "the dynamic force of leadership and of organization." The climax was Scott's arrival in Los Angeles, where he was met by a large crowd.

> Banners were there, armbands, placards, cars pointed gray and monogramed with monads, cheers, salutes, cameras, and a parade through the city to Tour Headquarters.

Scott's speech, from the door of Monad Cabin, was scheduled to follow a dinner with the officers of all Sections.

> Long before eight o'clock, the hour scheduled for an address . . . , hundreds were milling around outside waiting to hear the Chief. Over 600 officers, committeemen, and special tour workers among them listened to a rousing organization speech. The audience sat in the open, floodlights playing over the area.[27]

In January, 1935, *The Technocrat* had carried an application form for assignment to emergency "police and communication" training:

> Most of our members are now familiar with activities at the Ridge Route Camp where men are training in week-end trips for emergency police and communications duty. Squads are assigned as rapidly as applicants qualify and camp facilities will accomodate them.[28]

Were these quixotic preparations for collapse, or something more? Ambiguities still remained, but to some observers the Technological Army must have begun to exhibit overtones not quite unique in the political context of the 1930's.

In the same period that Scott was holding mass audiences

spellbound for hours on end and being saluted by delegations of his followers, a serious attempt was being made to recruit key "functional" people, the elite needed to keep the wheels turning when collapse came. Early Technocracy reports are filled with mention of special talks before engineering, professional, managerial, college and university bodies, as well as with references to such people working within the organization.

The first issue of *Technocracy* described at length the occupational composition of some of the Section leadership and membership. Phoenix had traction, mechanical, and electrical engineers in addition to three ministers and a half-dozen attorneys. In Kansas City, a basic science course was being taught by a chemical engineer and "a committee of engineers, representing electrical, mechanical, structural and chemical groups are busy lining up their fellows for the long pull towards functional organization." Appleton noted three engineers in its midst, and the Vancouver Section "has formed a special group of real, functionally capable men—engineers and mechanics, who belong exclusively to 'the trained personnel' of this continent."[29]

This early emphasis on recruiting and organizing key functional personnel sheds light on Technocracy Inc.'s initial conception of its Technological Army. It seems that for a time a genuine revolutionary "dual power" plan was seriously adhered to—not one of dual "political" power, but of a technical, "functional" state within a state. The entire conception is made quite explicit in an article describing the "Technet"—a network of Technocrat amateur radio operators in the Ohio area and on the West Coast, which anticipated emergency service when economic breakdown would "paralyze the communications systems as well as all other service and industrial functions." "Sequences" in all vital fields of production and service would be built up by Technocrats for the transition into the Technate or technocratic state. The communication, publication, and transportation activities of the Sections were the modest beginnings of such a structure.[30]

Actually, the date of the article cited above, 1941, suggests that the article is somewhat anachronistic. By 1941 the emphasis

had shifted from recruiting and organizing a technical dual power to the establishment of a disciplined mass movement. The shift seems to have occurred about the time of the organization's greatest growth, 1938–39. It has been suggested by former organizers of Technocracy Inc. that Scott had been unable to enlist or to hold enough trained key functional personnel—the engineers refused to be organized, just as Veblen had predicted. As Technocracy Inc. grew, most of its members were nonprofessional people attracted not by the prospects of becoming an elite corps to keep the wheels turning but by the explanation and education offered by the technocratic ideology; the organization increasingly was held together by the success of its *Study Course* program.[31]

In Technocracy Inc.'s press, membership and officers were now less often identified by education or occupation and special audiences were not noted. Instead, audiences began to be characterized as "representative cross-sections of each community." In April, 1938, Howard Scott told a Cleveland audience that: "For the first time in history a real mass movement is in the making. It is following the pattern laid down by American technology, and therefore will prove irresistible to any minority group that may try to stand in its way."[32] "Discipline," a key word in Technocracy Inc.'s description of its organization, was, in at least two important policy statements, spelled out as precisely that which every private in every army feels it to be—unquestioning obedience. William Knight, in the letter previously cited, tells his questioner to do his work and not worry about leadership or tactics. He has joined an army, and in an army one does not expect to be introduced to the general staff or shown war mobilization plans.[33] In 1948, "Salute to the Record," a "loyalist" article issued amidst internal revolt, stressed that "conditioned Technocrats know their jobs." Since the Technocrats could not have the training nor the opportunity to observe and interpret events, "the Director-in-Chief and his staff have the responsibility for analyzing the trends and planning the strategy. The Technocrat in the Field finds his hands

quite full enough with carrying that strategy out and the tactics which support it."[34]

Other aspects of Technocracy Inc.'s activities in the later 1930's seemed to emphasize the second term in the phrase "Technological Army." An emblem, the Monad—"in vermillion and French gray, which is an ancient Chinese symbol signifying unity, balance, growth, and dynamic functioning for the security of the life processes"—had appeared at the 1933 Chicago convention. It became widely used on lapel pins worn by all members, on letterheads and literature, and on roadside signs. A uniform gray color began to permeate the organization: as pamphlet publication was taken over by CHQ about 1938, gray covers became standard; gray-painted automobiles with the Monad emblem on the doors had appeared sporadically, but really began to be pushed as a "symbolization" device in 1938. (The cars were privately owned and usually repainted in local Section workshops.) Some Sections, especially in California, had Technocracy Motorcycle Corps. A few Technocrats even had gray-painted airplanes with the Monad on the fuselage; a Technocracy gray motorboat was reported on the waters of Lake Michigan.

Gray gabardine double-breasted suits, worn over gray shirts with blue neckties appeared in increasing numbers after 1937. (The suits were not issued by Technocracy Inc., but the cloth could be purchased from several manufacturers who made it according to CHQ's specifications.) This "Regulation Dress" was not obligatory but was urged upon members who could meet the necessary conditions: a "presentable physique and deportment" and willingness to wear it "on all occasions where the usual civilian, business, party or evening clothes are worn," including such occasions as church services, funerals, dances, meetings, and public dinners. Military-type regulations on neatness and cleanliness of dress were also set down; adornment other than the official Monad emblem was banned. Members in Regulation Dress were forbidden to congregate in "public places of known questionable repute" and were reminded that while so

attired they were on "active duty for Technocracy."[35] Official dress was available for both men and women. The Farads, Technocracy's youth group (named after a unit of electrical capacity), had their own distinctive dress: gray sweaters with large Monad emblems.

With the gray suits came the Technocracy salute, which was the hand salute used by the American armed forces. While the salute was supposed to be used as a common greeting between Technocrats, in practice it was confined largely to the opening and closing of meetings.

By the time of Scott's 1938 tour, the semimilitary trappings of the Technological Army were all well in evidence: lines of gray cars escorted the Chief; officers of the organization saluted the audience as they were introduced on the platform; newspapers began to take note of Scott's "steel-gray uniform-like suit which is the mark of his organization" and of the similarly attired massed ranks in his audience.[36] Behind the Chief, as he spoke, hung a large gray banner, emblazoned with "CHQ TECHNOCRACY" and a Monad emblem three feet in diameter.

At about the same time, detailed regulations were appearing on all phases of Technocracy's activity: holding meetings and study classes; speaking, writing, and editing; organizing new territory. For Scott's 1940 address in the Hollywood Bowl, his organization provided one hundred ushers in gray dress, a Communications Group with an auxiliary sound system complete with portable generator ready in case the public address system failed, and five radio transmitter and receiver units. Technocracy Motorcycle Corps members in "official gray and black uniforms" performed "great service in efficiently parking official cars at the Bowl and keeping peddlers of all kinds of literature and gadgets off the Bowl property."[37]

As the 1930's faded into the 1940's, and as Technocracy Inc. reached its peak, the multifaceted image of Howard Scott seemed to change from the prophet of doom crying out in the wilderness, or the technician-revolutionary, to that of the general inspecting his troops poised at the border of alien territory. A four-page spread on Scott's 1941 Western Tour shows two solid

lines of gray-suited Technocrats awaiting their Chief at the railroad station; a seventy-one-car gray parade; Scott surrounded by a sea of gray-suited and -shirted followers; and Scott talking to groups of Technocrats in seven different attractively furnished Section halls.[38]

Precisely what all of this meant to the enigmatic personality that is Howard Scott is problematic. Several remarks made by Scott in a 1938 article are perhaps as revealing as any. Speaking of the Army and Navy, he comments that aside from industrial personnel, the military "are the only efficient and disciplined bodies, and the least affected with business values." Scott concludes with a description of how the youth of America will usher in the new society. It will present an "ultimatum" for a "clean, hard, bright design for living." Should any minority, "racial, religious, or economic" stand in its way, youth "will concede nothing short of that minority's annihilation."[39] It would be difficult to find phrases more apt than these of Scott's to summarize the values implicit in the direction Technocracy Inc. was moving.

VI. Technocracy Inc.: Structure and Operations

As Technocracy Inc. gained its peak membership, changes in organizational emphasis began to occur. Initially, Howard Scott's speaking tours served both as a focus for members' activities and as a means of holding the organization together. With growth, continuing local activities became increasingly important. Local speakers and organizers were trained to cover the periods between the Chief's tours; classes, lectures, and publications at the Section level provided continuing tasks. These well-defined and organized means of participation probably account in good measure for the persistence of Technocracy Inc. over a span of thirty years. The more casual operations of the Continental Headquarters contrasted sharply with Section functioning, ultimately contributing to a rift in the organization.

Formal Section Structure

The formal structure of Technocracy Inc. Sections, together with specific instructions for such matters as conducting public meetings, is set forth in detail in a series of bylaws, general regulations, and operating instructions issued by the organization's headquarters.

A brief mimeographed amended set of bylaws was issued on November 23, 1934. It defined a Section as a minimum of twenty-five members of Technocracy Inc., living within an area designated by specified degrees of latitude and longitude, who have applied for a Section charter from headquarters. Sections were designated as subunits under the jurisdiction of undefined Regional Divisions. A Section was operated by a Board of Governors of not more than nine or less than three people, who elected three Section officers: director, treasurer, and secretary. Various powers of the board were specified, but this set of by-

laws is unclear about how members of the Board of Governors initially receive their position. The bylaws themselves could be amended only by the "National Board of Governors" of Technocracy Inc.

By the end of 1935, according to a mimeographed release, organizational growth necessitated more complete and detailed regulations. Accordingly, an eighteen-page booklet of closely printed *By-Laws and General Regulations* was issued, as amended on September 16, 1935. Except for a few significant changes in subsequent amendments, this set of bylaws provided the basis for all later Technocracy Inc. Section organization.

The Board of Governors remains the directing body. The eleven-person board consists of the director, chief of staff, secretary, treasurer, and seven governors of standing committees: New Membership, Education, Research, Finance, Public Speaking, Publications, and Organization. The Board of Governors is originally selected by the Section membership but may remove any of its number except the director by a vote of seven or more, replacing him by an appointment approved by a majority of the board. The Section director, however, can be removed from office only by written request on the part of the board members to Continental Headquarters, which has the actual power of dismissal from office. (There are no explicit provisions for the replacement of a dismissed director.)

The Board of Governors appoints an Executive Committee, consisting of four of its members plus the director as an ex-officio member. The Executive Committee in turn chooses the standing committees and defines their work in accordance with the rules given in the bylaws and general regulations. The Board of Governors also has the power to override by unanimous vote the veto of the Section director, which is otherwise operative on all their decisions.

Finally, a majority of the Board of Governors has the power to "censure and correct" a Section member felt to "demonstrate his unfitness for membership" or to recommend his dismissal. (CHQ has the actual power of dismissal from membership.) Elsewhere in the general regulations, three explicit grounds for

expulsion are given: nonpayment of dues, membership in "any political organization or any pseudo-technocratic organization not authorized by Technocracy Inc.," and finally, "the Continental Board of Governors reserves the right to expel any member whose activities are deemed detrimental to Technocracy Inc." As a corollary, perhaps, of this last condition, Technocrats are told: "It is the duty of every Technocrat to keep CHQ fully informed regarding any action in the Field that has even the slightest appearance of sabotage." (Originally appearing in 1935 as the concluding paragraph to a page-long description of Technocracy Inc.'s political tactics, which was subsequently deleted, this statement was retained in later editions of the *By-Laws and General Regulations.*) The 1942 and following editions of the bylaws also list the use of intoxicating beverages on either organization premises or public premises used by Technocracy Inc. as grounds for dismissal, as well as the introduction of "religious issues" into the organization.

Two "Powers of Section Membership" are specifically listed in the bylaws. First, a majority of the members can prefer charges, in writing, against one or more of the Board of Governors, submitting the signed charges to CHQ whose "Continental Board of Governors" takes final action. Second, at the end of each calendar year, the Board of Governors are subject to "majority approval" of the Section membership. (The second point was added in the 1942 and subsequent editions.)

The remaining bylaws and general regulations specify in detail the duties of the various officers and committees, reporting and accounting procedures, conducting of public meetings, publication rules, etc. Two of these points are of particular interest with regard to the structure of the organization. First, carbon copies of all correspondence from Sections, magazines, or organizers to other units of the organization, contacts, or outside agencies must be sent to CHQ. Second, four stipulations are made under the heading "Privacy of Section Meetings and Information." Only members can attend official Section meetings; minutes of meetings cannot be disclosed and the proceedings may not be discussed with nonmembers. Section membership

size cannot be disclosed except when authorized by CHQ; to insure enforcement of this regulation, the size was to be disclosed to as few members as possible. Finally, the names of members were not to be revealed to nonmembers or outside agencies except with the consent of the members involved. Of the four points, the restrictions on knowledge and dissemination of membership were the most important, especially in conjunction with other aspects of the organization's structure.

Locus of Control

As the organization evolved, several interesting changes from the bylaws of 1935 are to be found in those of 1942 and later. In a change of wording, "elect" became "select" in regard to the Section Board of Governors. Structurally, a significant change occurred in organization, or attempted organization, of levels between the local Sections and CHQ. First, the seventh standing committee was changed from its 1935 title of "Intersection Relations" to "Organization," and its duties were focused more on internal Section matters than on coordinating or organizing regional units. Second, the original Article IV of the bylaws, "Regional Division Organization," was omitted entirely. Originally, if a Regional Division (a latitude-longitude quadrangle) had ten or more Sections with a total membership of not less than two thousand, the Continental Board of Governors could appoint a Regional Board of Governors to coordinate activity in that area.

These changes appear to highlight one of the two most prominent characteristics of the formal organizational structure of Technocracy Inc.: the lack of both intermediate and lateral levels of organization and authority between seemingly autonomous and self-governing Sections and the Continental Headquarters. (At the discretion of CHQ, "Area Tour Headquarters" could be authorized. But these were concerned with the limited purpose of facilitating speaking tours and were not systematically set up for the total organization.) There were neither regional structures above the Section level nor regular regional or national conferences or conventions. Thus, except for informal

contacts and traveling speakers, each Section was coordinated with other Sections only through Continental Headquarters. This structural feature is closely related to the other most striking aspect of the formal organization, the extreme centralization of control.

CHQ's final authority concerning dismissal from office or membership has been noted as well as its blanket powers of expulsion and its surveillance of correspondence. Within each Section, the director holds a veto power; careful examination of the bylaws indicates that nothing prohibits CHQ from dismissing a Section director at any time and replacing him with its own appointee. If further specification of the ultimate locus of authority need be demonstrated, it is provided in two more articles appearing in the 1935 and subsequent editions of the bylaws. Article II-D specifies that the Continental Board of Governors shall have final jurisdiction over all activities, with the methods of supervision and selection of personnel left to its own decision, subject only to Technocracy's principle of using the most capable people available. Article V states that the bylaws are subject to amendment only by the same Continental Board of Governors.

Section Activities

When a Technocrat referred to "the Section," he was speaking of a place as well as a group. Typically, the Section headquarters began as a small office, perhaps on a second or third floor of a commercial building, where meetings could be held and literature offered for sale. As membership increased, ground floor premises would be obtained, often in converted stores on main thoroughfares, but usually outside the high-rent central business district. The organization seemed frequently to attract persons skilled in construction, decorating, and the graphic arts, so the Sections often were attractively remodeled by their own membership. Literature and poster displays appeared in the windows; the name of the organization, together with the appropriate Section and Regional Division designation and the Monad emblem, were prominently displayed on the building.

Inside, there was a small hall suitable for meetings and classes, a lobby, a literature case, a receptionist's desk, and desks or offices where officers and committees might do their work. A small library housed the references listed in the *Study Course,* government statistical documents, and other books. Often a kitchen and workshop completed the facilities. In later years, a series of wall charts illustrating points in the *Study Course* lessons was silkscreened by the Detroit Section and distributed to other units of the organization. These charts were often displayed along one wall of a Section meeting room or corridor; other walls were decorated with maps or murals.

Every evening of the week, and often on weekend afternoons as well, the Section would be a center of various activities. Central were the study course classes; at least one class, frequently two, and sometimes more would be in session for most of the year, meeting once a week. Public speaking classes were a second prominent activity, along with current-events discussion sessions, perhaps organized around a film. Writers' classes, meetings of the board and the eleven standing committees, monthly membership meetings, public meetings, and social events kept the Section calendar full. As in most organizations, a relatively small portion of the membership was constantly active in overlapping activities. The active Technocrat probably spent about two evenings a week in Section activities; at the time of special events, such as a large public meeting, publicity campaign, or motorcade, he was probably at Section headquarters every evening. Many Sections published a mimeographed bulletin for their membership, announcing the dates of meetings and classes, conveying brief messages from the governors of the committees, and containing small items of Technocratic newsworthiness gleaned from the public press.

Many of these activities were suggested in minute detail in a series of operating instructions issued by the Continental Headquarters from time to time as supplements to the *By-Laws and General Regulations.* For example, a typical public meeting of Technocracy Inc. would be something like this, for it has all been laid out in the organization's written instructions: Sur-

rendering his admission ticket at the door of the Section auditorium (free lectures attract "nuts" with nothing better to do), the guest is ushered to a seat by a young man dressed in Technocracy's official gray double-breasted gabardine suit. Several others are performing the same function, perhaps a few more than are strictly necessary for a hall of that size. On his way into the auditorium, he has been handed a mailing-list card to sign. Looking around at the people entering, he sees that a good number can be identified as Technocrats, either by their gray dress or by the Monad pin or button. The hall itself has been arranged with folding chairs facing a small platform containing a lectern. The American flag is in a standard at one side of the stage, at the rear of which hangs a gray banner containing a large Monad emblem and "Technocracy Inc., 8342-1."

Promptly at the time the meeting is scheduled to begin, a Technocrat appears on the stage and asks the audience to fill out the expression-of-interest cards they have received and turn them in to the ushers who will now collect them. A few minutes is gained for seating of latecomers while the ushers move down the aisles, holding one of the cards as a sample, offering pencils to those who need them, and collecting the completed cards.

After the cards have been collected, another gray-clad Technocrat appears onstage. Stepping to the microphone, he salutes the audience and welcomes them in the name of the Section and the organization. Briefly, the speaker is introduced; only his rank and experience within Technocracy Inc. are used in his build-up. With the chairman's final words of introduction, the speaker appears, steps to the side of the chairman and is saluted by him. The speaker in turn salutes the audience, and the chairman leaves the stage.

Slowly, calmly, the talk begins. The problems of the price system are laid before the audience, but without rancor or emotion. Individuals are not to blame, it is the system. Facts and figures are used extensively: on technological changes, on income distribution, on business slowdowns and shutdowns. All of the problems cited by the speaker are shown to be part and parcel of the price system. But, he adds, a new social order is

possible here in North America; not only is it possible, it is inevitable, given the unidirectional progression of physical events. The talk lasts about an hour. In the words of the organization's "Guide for Speakers," the presentation has been one of "cool and detached dignity."

As soon as the speaker has concluded his talk, the chairman reappears, informing the audience that while the speaker catches his breath before answering questions, Technocracy Inc. would like to acquaint the audience with some of its literature. Immediately another person appears, holding two sample bundles of literature, perhaps one for twenty-five or fifty cents, another for one dollar. The literature seller shows the magazines, pamphlets, and leaflets in each bundle and asks those interested to raise their hands. Ushers move down the aisles selling the literature.

As soon as the selling begins to slow, the chairman takes the microphone and announces the question period. Oral or written questions from the audience are answered as long as interest is evident, until people begin drifting from the hall. At this point, the speaker turns to the audience, asking it two questions: a show of hands of all those who want to help build a New America; and, "How many of you want to do something about it *now*—join Technocracy and go to work?" With this, those who have expressed interest are asked to stay for an organization meeting, the rest of the audience is told to leave.

The speaker, usually the lecturer or the chairman, now asks everyone who wishes to remain to come to the front of the hall. The members present lead the way. After the group is settled, and the rest of the audience has left, the members are introduced by being asked to stand. At the same time, the Section treasurer, secretary, and governor of new membership have stationed themselves behind a table, ready with application and receipt forms. A short talk is given on Technocracy Inc. as an organization, its structure, activities, study classes, and dues. "We are not making an emotional appeal," the speaker states, "because we're only looking for the intelligent minority, the three percent necessary to guide a social movement." At the end of these remarks,

the guest finds that a Technocrat near him has an application form in hand and is asking if he would like to join, offering to help fill out the form. If the guest replies that he would like to take the form, look it over, and come back later, he is politely refused; the membership application form does not leave the organization. He need not fill it out completely now; if he is in a hurry, he can supply name and address, pay a dues installment, and return to complete the application.

In the prescribed method of holding a Technocracy Inc. public meeting, recruiting members was an essential part of the meeting. The tone and approach of the speaker were formally laid down, as well as the meeting procedures. Thus, themes were indicated, such as preparing for an inevitable but orderly transition rather than advocating social overthrow; the dependence of all social problems on the nature of the price system; a stress on facts; respect for functional competence and contempt for "Price System economists, financiers, promoters, politicians, liberals, radicals, and 'social planners,' along with their activities and statements"; the inevitability of technocracy. Proscriptions went along with prescriptions: traditional socialist or radical terminology must not be used; nor should one use "moralistic terms" ("justice," "liberty," "freedom," and "equality" are among those cited in this category) or the technical vocabulary of price system economics. The phrase "under Technocracy" was to be avoided in favor of "in a Technocracy" or "in a Technate." Finally, a feeling of the necessity of doing something, "study and action" (by joining Technocracy Inc.) was to be induced in the audience.

To speak from the platform as a representative of Technocracy Inc., a member had to become an "Authorized Speaker." The procedure involved attending public speaking classes, followed by short talks at membership meetings, work in study classes, and platform appearances as chairman, literature seller, and so forth, at public meetings. Then, to be authorized as a speaker, the individual member had to submit to CHQ a unanimous recommendation from the Section Speakers Committee, summaries of at least five half-hour lectures and the

dates they were delivered, and a typed copy of a lecture prepared only by the applicant himself.

Not only were speakers' training, standard approaches, lecture content, and procedure specified, but supplementary lecture types as well. Some suggestions were: to cover current events of relevance, technological developments, physical resources of the continent, "subterfuges" involved in financial and political maneuvers, the "ironies and futilities of present social-control techniques," and the "alien, non-American origin and the inadequacy of all Price System institutions and forms of government" in contrast to Technocracy.[1]

Finally, two instructions for speakers, which are important in their effects on the organization, are found in the bylaws. "Speakers shall not enter into a symposium or debate, either formal or informal, with individuals representing any party or organization." "No useful end [will be served] by arguing for or against the many minor issues of the present social structure such as birth control, capital punishment, child labor, etc."[2]

In addition to a series of regulations governing matters routine to any smoothly functioning organization (report forms for meetings and dues, duties of standing committees, organization of new units, etc.), two further sets of instructions are of particular interest in delineating the nature of the organization and its public image. First, in reference to study and information, an outline of significant items to look for when reading the public press was provided. Sections were urged to keep clipping files and to submit such material monthly to CHQ. In connection with study course work, standard government reports, periodicals, statistical reference books and some trade journals and bulletins were strongly recommended. Technocrats should be able to use and cite authoritative sources on technological developments, employment, mineral resources, etc. Thus, for example, Sections were urged to subscribe to the *Monthly Labor Review* and the *Bulletin* of the Federal Reserve Board.[3]

Second, writers and editors were provided with a set of rules as extensive as those for speakers. There were suggestions on make-up and layout matters including everything from cover and

contents page to typography. (One required typographical trait was the capitalization of all words having to do with Technocracy Inc. and its key terms—Technocrat, Price System, Organization, Section, Continent, etc—while always keeping socialism, communism, government, federal, republican, democrat, etc., in lower case.) Material suggested for magazines was similar to that prescribed for public speeches. The same terminological taboos and methods of approach were in effect. Certain types of articles had to be approved by CHQ before they could be published. These included all future projections, including Technocracy Inc.'s social design; articles dealing with the tactics of the organization; foreign policy articles; and material on racial, religious or language minorities.[4]

In practice, the "field magazines" produced over the years by Technocracy Inc. both lived up to the formal requirements and were generally well-written and attractively laid out. With but few exceptions, the recommended calm and dignified tone was carried out in all articles.

Continental Headquarters

Above the Section level, the only significant unit of organization in Technocracy Inc. was, and is, Continental Headquarters. In contrast to all of the minutely detailed Section regulations, there is very little formal information on the structure and function of CHQ. All that the bylaws contain are several references to a "Continental Board of Governors" with final jurisdiction over the personnel and policy of the organization and with sole power to amend the bylaws. According to former members, an impression existed that there was a separate set of bylaws for CHQ, but these bylaws were unknown to the membership.

In the early days of the organization, on December 15, 1934, a release was issued stating that a sufficient staff had been obtained at headquarters to departmentalize activities and giving the names of the directors of five divisions. So far as is known, this is the only such statement ever released. It listed the fol-

lowing: John V. Dittemore, Division of Finance; M. King Hubbert, Division of Education; William Knight, Division of Organization; Arch Jameson, Division of Research; William McCloskey, Division of Speakers Bureaus. This group appears to have been the only full Board of Directors appointed. After they died or left the organization, they were replaced by various individuals who signed correspondence as "assistants" in one division or another. Of this original group, nothing is known of William McCloskey; his name does not appear in reports of organizational activities. Arch Jameson, the director of research, wrote the "Introduction to Science" in the study course. Jameson died suddenly in January, 1935; a brief obituary notice sent out by Technocracy Inc. indicated that he had been a chemical engineer with a degree from California Institute of Technology and had been chief chemist of the Brewster Research Laboratories of New Jersey at the time of his death.[5] John V. Dittemore, the director of finance, had been educated at Ohio Military Institute and the Phillips Academy, but his occupation is not known; he died in office in May, 1937.[6]

William Knight, the director of organization, and M. King Hubbert, the director of education, were the most important of the original directors. Their participation was probably crucial for the establishment of Technocracy Inc. as a functioning organization in the 1930's. Hubbert was the author of the *Study Course*.[7] It seems probable that Knight, as director of organization, was responsible for the bylaws, regulations, and operating instructions, which provided the framework for all membership activities. Both were well-educated men of wide-ranging experience.

According to a New York *Herald Tribune* obituary, William Knight had been a well-known aeronautical engineer, numbering Dwight Eisenhower, Fiorello La Guardia, and Charles A. Lindbergh among his "friends and acquaintances." Born in Naples, Italy, he was graduated from the Royal College of Mechanical Engineers, Venice, in 1900, and from the University of Naples in 1903. Arriving in the United States in 1910, he worked for General Electric under Charles P. Steinmetz (who was listed as

one of the participants in the old Technical Alliance). Naturalized in 1916 and commissioned a lieutenant in the Army, Knight served as a technical adviser to the military attaché in Rome and helped in the construction of the first wind tunnel at St. Cyr, the French military academy. After the war, he was successively a technical representative in Europe for the National Advisory Committee for Aeronautics, an editorial staff member of two aviation journals, a mechanical engineer for Ford Motor Company, and vice-president and general manager for two American subsidiaries of the German Junkers Corporation. In 1933 he opened his own office as a consulting engineer.[8]

Although no authorship was cited, it seems probable, in view of his training, that Knight was responsible for details of the Flying Wing airplane design which was publicized by Technocracy Inc. during the Second World War. (Scott had talked about Flying Wings in his Greenwich Village days.) William Knight did not tour the country or otherwise have much direct contact with the membership. One former member alleged that, although fluent in several languages, Knight had a slight accent and Howard Scott did not care to have other than completely "native-appearing" speakers before the membership or the public.[9]

William Knight was the author of a letter, written in 1938 and later reprinted in Technocracy Inc. magazines, that expresses respect and admiration for Howard Scott and calls for acceptance of military-like discipline in the organization. In 1933, however, in a letter to Ralph Chaplin, Knight characterized Scott as lazy, unable to organize his own or others' work, indecisive, and unable to evaluate people. Scott is a genius, Knight continued, and a great prophet whose name will be recorded in history, but he is a man incapable of leading a revolution except in Greenwich Village. If Technocracy were to go anywhere, Scott must be elevated to the position of its Marx and someone else found to play the role of Lenin.[10] What tactical or personal considerations determined the later re-evaluation and the "William Knight Letter" are unknown. Knight seems to have continued in

at least some degree of activity with Technocracy Inc. into the early 1940's; he died in 1944.

M. King Hubbert was born in Texas in 1903. Educated at the University of Chicago, he received a Bachelor of Science degree in 1926, a master's degree in 1928, and doctorate in 1937. A teaching assistant at Chicago from 1928 to 1931, Hubbert came to New York in the latter year as an instructor in geophysics at Columbia University and apparently met Scott not long afterward. His association with Technocracy Inc. lasted until about 1942; he had participated in a June, 1941, membership cruise on Lake Erie as part of the CHQ staff. In recent years, Hubbert has had a distinguished career. In 1942–43 he served as senior analyst for the Board of Economic Warfare in Washington, and since that time he has been in research and administrative positions with a prominent oil company. He has been a member of a variety of governmental, international, and professional commissions, including the United States delegation to the United Nations Scientific Conference on the Conservation and Utilization of Resources. The reasons for Hubbert's withdrawal from Technocracy Inc. are not known but would seem to be related to occupational moves.[11]

Other men in key positions were important through the years in the functioning of Technocracy Inc.'s Continental Headquarters. Mention has been made of the technocratic career of Paul Brown Corr, the first editor of the CHQ magazine, *Technocracy*. He apparently was succeeded by L. M. Dickson, of Vancouver, B.C., who had founded and edited the *Technocracy Digest* there before being called to CHQ. Dickson, it seems, did not return to Technocracy Inc. after World War II military service, and this may account for the demise of *Technocracy* magazine. Little is known about Dickson except that he was a writer or journalist by occupation.[12] He may have been responsible for the detailed technical suggestions laid out in the organization's instructions for writers and editors.

In 1941, about the time some of the original headquarters personnel began to lessen activity or drop out entirely, A. W.

Atwater was called in to serve as assistant director of the Division of Organization. A native of Nova Scotia, Atwater had become a U.S. citizen as a young man. Before coming to CHQ, he had lived and traveled in the Minnesota-Manitoba area and was well known there as a Technocracy speaker. A railway claims adjuster for many years, he operated his own hardware business for a time, then accepted the presidency of a local bank. The foreclosures required during the Depression so distressed him that he left his job for relief work in the United States and Canada. He was also active in a Spanish relief organization, presumably during the civil war. Disillusioned by the procedures employed at CHQ, Atwater joined the dissident Technocrats of 1948, but left the new organization several years before his death in 1959.[13]

In the most recent phase of Technocracy Inc.'s operations, the second most important man at headquarters seems to be Wilton Ivie. As a resident of Salt Lake City, where he was reputed to have been a professor in one of the biological sciences, in the late 1930's he had written several pamphlets that became popular propaganda pieces. Regarded by many Technocrats as one of the best writers the organization had ever attracted, Ivie apparently came to CHQ some time during the late 1940's. He is currently managing, from a distance, the three Technocracy Inc. magazines and is the chief public spokesman for the organization.[14] All recent policy articles have been written by him, and he usually has the lead or feature article in each of the magazines.

In addition to the individuals described, other people worked at CHQ in various capacities and for varying lengths of time. There were also several permanent secretaries and clerks.

A marked contrast is apparent between the structure and function of the local Sections of Technocracy Inc. and its Continental Headquarters. The Sections were remarkably bureaucratized and routinized; formal, written rules specified offices, duties, and procedures of appointment and dismissal. CHQ resembled much more the operations of a charismatic leader and his inner circle.[15] Thus, there was no specified path for recruit-

ment into a CHQ position—individuals were invited by Scott at various times to come to headquarters and assume various tasks. There was no set of rules defining the jobs to be done, the scope of activities, the methods of appointment or dismissal, or the accountability of the officers. The operation was a personal one, directed by Howard Scott as the Chief, aided by a small, talented, well-educated "brain-trust."

The organization's bylaws contained reference to a "Continental Board of Governors" as a final ruling body; the people who were active at CHQ were all designated, however, as "directors" or "assistant directors" of various "divisions." Who were members of the Continental Board of Governors and what the board did, if it existed, were mysteries to members of Technocracy Inc. Long-rumored to be composed of "prominent people" in science and engineering whose identity must be kept hidden for fear of price system pressures, the board's phantom quality added to the aura of a top-secret high command which Howard Scott seemed to create deliberately about CHQ.

VII. Technocracy Inc.: Theory, Values, Ideology

Looking back upon their experiences in Technocracy Inc., many of its one-time activists point to the organization's twenty-two-lesson study course as its most outstanding achievement. Since its appearance in 1934, the course has remained the central focus of local Technocracy Inc. activity; every Section has at least one study course class in session throughout most of the year. The study course was originally intended as a series of "outline lessons" to serve as a means of group activity in the absence of "a comprehensive treatise which can be made available for the use of the general public." (Although such a treatise was announced to be "now in a state of preparation" when the lessons were released, it failed to materialize.) Originally the lessons were not to be considered as a "textbook" but as "a guide to study"; over the years they have, in fact, become Technocracy Inc.'s basic text. All new members are supposed to complete classes based on the book, and most go through the classes several times. Considerable ingenuity has been displayed by some Sections in organizing material around the study course book. In some cases, both elementary and advanced classes were offered; in others, extensive outside reports based on the bibliography were assigned; experts in the various fields covered were utilized; and round-table discussion techniques were employed by some groups. Sale of the book to the nonmembership general public was discouraged; but copies were placed in public, college, and technical libraries.

The *Technocracy Study Course* is quite unlike other texts or writings of dissident social organizations. In its usually scholarly tone it is also quite unlike the writings and pronouncements of Howard Scott, who is cited only twice in its text. (Hubbert, its author, however, even after many years away from Technocracy Inc., has insisted that credit for the underlying ideas belongs to

Scott, an assertion which seems correct.) A careful reading of the *Study Course* will demonstrate that, despite its essentially outline form, it displays a consistently worked out philosophical and theoretical approach of its own. The summary below is intended to emphasize this philosophy and theory rather than cover its contents in detail.

Technocracy Inc.'s doctrine can be separated into three parts: the theory or series of interrelated propositions about man, nature, and society; the values implicit in some of the assumptions made, conclusions drawn, and specifications laid down in the theory; and the ideological appeals or themes of dissent attached to the theory in its presentation to the public. The *Technocracy Study Course* is concerned explicitly with the first area, theory, but the fundamental values of the organization may also be inferred from it. The ideological appeals appear in articles and pamphlets utilized for disseminating the basic ideas and recruiting members into the organization.

Theory

The first page of the *Technocracy Study Course* divides its contents into three areas: (1) "an outline of those elements of science and technology essential to an understanding of our social mechanism," (2) "An analysis of the price system," and (3) "Technocracy's social synthesis." Fourteen of the book's twenty-two lessons are concerned with the first topic, including modern industrial technology; four are devoted to the second; and two to Technocracy Inc.'s design for society. (An additional intervening chapter covers psychological and sociological considerations.)[1]

Prefacing the lessons themselves is a fourteen-page "Introduction to Science" which sets down Technocracy Inc.'s orientation to the physical and social world. Beginning with a standard discussion of the nature of facts, definitions, and postulates, the introduction then gives three "postulates of science": (1) "the external world actually is," (2) "nature is uniform," and (3) "there are symbols in the 'mind' which stand for events and things in the external world." Science is discussed as essentially

a method of probability prediction; then the conceptions of science that are crucial to Technocracy Inc.'s theories are brought in. First, although it has been stated that science is a *method, substantive* denotations are employed. The student is told that "there is only one science"; to illustrate the point, the interrelatedness of chemistry, biology, and physics in investigating organic phenomena is demonstrated. From the context, and from the rest of the book, it becomes clear that most of the time Technocracy Inc. associates "science" with the content of the physical sciences. Second, in its discussion of science as a method of prediction, the procedural distinctions which are usually labeled "inductive" and "deductive" are called "analytic" and "synthetic," respectively. While there is a good discussion of the tentative nature of scientific prediction, the effect of the "synthetic" label is to switch the advocated social design from its proper logical status of a deductive, hypothesized scheme to one that has been determined or "synthesized" by what has gone before.

Finally, without apparent relation to the preceding discussion, another cornerstone of technocratic thoery is introduced: the statement that any machine, or group of machines, must be operated in accordance with its design. Values and ethics are irrelevant in operating mechanical equipment; design specifications alone determine what can and cannot be done. Interestingly, the choice of design—or the criteria for using one rather than another—are sidestepped in a brief note on engineering, which is seen as finding the "best" answer to practical problems on the basis of available facts. Later, however, the criterion employed is made clear, both explicitly and implicitly from examples.

The introduction concludes by again reminding the student that he is approaching "the physical world, that actual, uniform world our postulates give us." Perhaps no more succinct summary of Technocracy Inc.'s approach can be given than that implied by a sentence near the end of the introduction: "The stoking of a bunsen burner, the stoking of a boiler, the stoking of the people of a nation, are all one problem."

Taking off from this physical science approach, the first few lessons in the book are concerned with the basic concepts and measurements of energy and its transformation and with the use of engines to convert energy into work. At this point the concept of efficiency is introduced (the ratio of work output to energy input). Man as an engine is discussed briefly and his approximately twenty-five per cent maximum efficiency is noted.

Armed with these concepts, the student Technocrat approaches the network of life, energy, and resources. The flow of life-giving energy is traced from the sun through plant photosynthesis, herbivorous and carnivorous animal life. The "dynamic equilibrium" or balance of nature established among the various life forms in a given area is examined. Man's place in this arrangement is described as uniquely disturbing in that he has increasingly learned how to divert a larger share of energy away from other animals to his own use. Domestication of plants and animals and the early utilization of metals and fuels is examined. Thus, the key to man's history is seen as his developing use of "extraneous" energy—energy other than that derived from the food he eats. Any people who have "a superior energy-control technique" tend to dominate others with lesser abilities in this area.

Tracing the familiar pattern of circumstances leading from the increasing use of iron in England to the necessity for pumping machinery in coal mines, the *Study Course* enters upon modern industrial development. The method of description changes after the discussion of early developments in prime movers, textiles, transportation, and communication and the listing of important later inventions. The rise of industry can be summarized in a comprehensible form by plotting growth curves of the utilization of energy, production of primary metals, and output of certain basic industries. Plotting production per year on the vertical axis, and time by year on the horizontal, examples are given for pig iron production, total mineral and water power production in the United States, railway mileage and ton-miles of freight, automobile production and registration, and coal production. A number of common characteristics of the resulting curves are

pointed out. First, actual production does not proceed in a smooth line, but is marked by upward and downward oscillations. As the level of production increases, the magnitude of the oscillations also increases. (Although the statement is not made in the *Study Course,* extrapolation from this tendency was the basis for Scott's predictions of total collapse in the next industrial shutdown after 1929.) Second, if a smooth mean curve is plotted, in which the individual oscillations are ironed out, all of the curves for the examples mentioned, plus those for other industries, show a marked general similarity in form—that of the so-called *S*-curve. Beginning slowly, growth then rapidly accelerates (graphically, a concave-shaped rising line) until it reaches the point of inflection, after which growth continues to occur but at a slower rate as it approaches a level plateau (graphically, a convex rising line which approaches the horizontal). This type of curve is discovered to be the same as that found by Raymond Pearl in his investigations of biological growth phenomena.

After three other kinds of theoretical growth curves are discussed (a continuously accelerating compound-interest type; one that levels off somewhat below its peak, as in the case of the lumber industry; and one that gradually declines almost to zero, as ultimately would be the case in the production of any nonrecurrent mineral), conclusions are drawn about the social significance of the common *S*-type industrial growth curve. First, the "fallacy of economists" in assuming a continuous growth of five per cent or more per year is pointed out. This was occurring, and was possible, only in the early phases of industrial development. Second, while in some instances, such as the automobile industry, the slowing down of the rate of growth was caused by approaching physical limitations, in most instances slowdown was due to the limitations on individual purchasing power imposed by price system distribution. Finally, the comment is made that as equipment becomes faster in operation, the smaller it needs to be, thus reducing the relative use of primary metals.

A chapter on mineral resources makes the double assertion that: (1) unless new sources of energy are tapped, worldwide

industrial equality is impossible due to the unequal distribution of resources; and (2) because of favorable resources and sufficient climatic variation, the North American Continent comprises "a natural unit" geographically and industrially.

The strictly physical or industrial analysis is concluded, at nearly the mid-point of the book, with further discussion of growth curves. Here, the relation of man-hours of labor to production and the mechanization of industry enter the picture. Another type of growth curve is introduced, the "decline" curve. The crucial example used is that of man-hours per unit of production, which decline in a kind of reverse *S*-curve as mechanization increases. What became known as "Technocracy's Basic Chart" is presented, covering from 1830 to 1930 (the curves are extrapolated to 1950). It contains three curves: physical production, increasing in the familiar *S*-pattern; man-hours per unit, decreasing in an analogous manner; and the resultant of the two, total industrial employment, which increases along with total production until the years 1915–20, after which it begins to decline, following the general slope of the curve for man-hours per unit. This chart indicates that after a certain point, due to the mechanization of industry and the leveling off of production (or a decrease in its rate of increase), the introduction of new industries or the expansion of existing ones does not offset the displacement of labor by machinery. Hence, the familiar argument that new industries create new jobs is invalid for the phase of industrial development after about 1920. The smooth curves on the chart represent long-term trends and are not the effect of any particular depression; it is emphasized that they are noncyclical, nonrepetitive. In concluding this part of its analysis, the *Technocracy Study Course* notes that "total man-hours in industrial employment do not necessarily bear any relation to unemployment." Given a total number of man-hours for a required output, and given a certain labor force, the alternatives are either ever-increasing unemployment or an "indefinite shortening" of the workday.

All this material is a prelude to the *Technocracy Study Course*'s more strictly social analysis. Take any steam engine, it

begins, and one knows from physical relationships expressed in a formula exactly what quantity of heat taken from the boiler can be converted into work. This gives an "objective standard of performance." If the engine performs much worse than the formula allows, one knows that a better engine can be built, and also just how much better it can be. Similarly, with a social system operating in a given area, if one knows all the resources available to that society, he can make a "reasonable approximation" of its "maximum rate of operation." Then, looking at its actual operation, if this is greatly below what is known to be possible, he knows there is room for improvement. And, exactly as in the case of the steam engine, faulty operation indicates a faulty design. The social mechanism, like the steam engine, can have its operation improved through redesign, omitting faulty characteristics.

Looking first at the potentialities of the North American Continent, and then at the actual operation of its social mechanism, one sees poverty, unemployment, enforced scarcity, waste and destruction of resources and products—operation "which is so far below that which is possible as to constitute both a social and a technological scandal." Following the logic of analysis previously laid out, one readily finds the reason for such deficient operation: the inadequacy of the social design. It cannot help but be inadequate since its elements were evolved in centuries of agrarian existence and are in no way suitable for the needs of a society that has undergone extremely rapid technological change in less than one hundred years. Thus, there are two further steps in Technocracy Inc.'s analysis before its own design is presented: critical examination of the "customs and folkways" that have descended from the agrarian past, and a statement of the needs unique to a modern high-energy civilization.

One of the most deeply rooted social concepts, asserts the *Technocracy Study Course,* is that of *property*. Property is approached as essentially a variable social norm: it consists of what society will allow an individual to do with a given item. Not only do property rights, and hence the concept of property itself, vary through time and between societies, but also within one society.

The illustration provided is the extreme differences in action allowed to the owner of land in a wilderness and the owner of a city lot. As society has become less agrarian, property rights in general have had increasing restrictions placed upon them. A final statement about the nature of property is that, in our society, "almost every item of physical equipment that can be monopolized" and is necessary for human life has become the private property of individuals or groups.

Next, as corollaries of the property concept, *trade* and *value* are analyzed. Trade, including its simplest form, barter, would appear to be simply an exchange of goods. But what is really involved is the exchange of property rights. Transfer of goods can take place without trade being involved—as in the feeding and clothing of soldiers in an army, in contrast to civilian purchase of food and dress.

Value is the "variable relationship between the amount of one commodity that is exchangeable for another" and, while being basically subjective, is in addition always a function of the relative scarcity of the items exchanged. Thus, the scarcer an item, the greater its value. Finally, the value of an item is asserted to stand in no relation to its social importance. Air has no value because of its abundance; in arid regions water is extremely valuable, but in regions of heavy rainfall and abundant supply it has no value and cannot be bought and sold.

The nature of *debt* is then discussed, both as individual and generalized future obligations to pay. *Money* is an expression of social agreement that a certain amount of debt is owed by the community to the money's possessors. *Price* is the amount of money, in denominations of value, exchangeable for a commodity.

All of these concepts are brought together in the definition of a *price system*: Regardless of whether the property involved is individually or collectively owned, "any social system whatsoever that effects its distribution of goods and services by means of a system of trade or commerce based on commodity valuation and employing any form of debt tokens, or money, constitutes a Price System."

Armed with these concepts, and developing others as they are needed, the *Study Course* begins an analysis of the operation of the economic system. Early in this process, two points central to the technocratic position are made. First, wealth, based on monetary values, bears no invariant relationship to physical quantities. This is because value itself is not a physical measure. Second, money, in the broad sense of any negotiable paper, is the mechanism of control over physical productive apparatus; but unlike that which it controls, it can be created out of nothing and contracted into nothing, and its changes are not necessarily related to changes in physical equipment. These points comprise the first of Technocracy Inc.'s indictments of the price system: that by its very nature it is imprecise and indefinite as an instrument of social control over physical production and distribution.

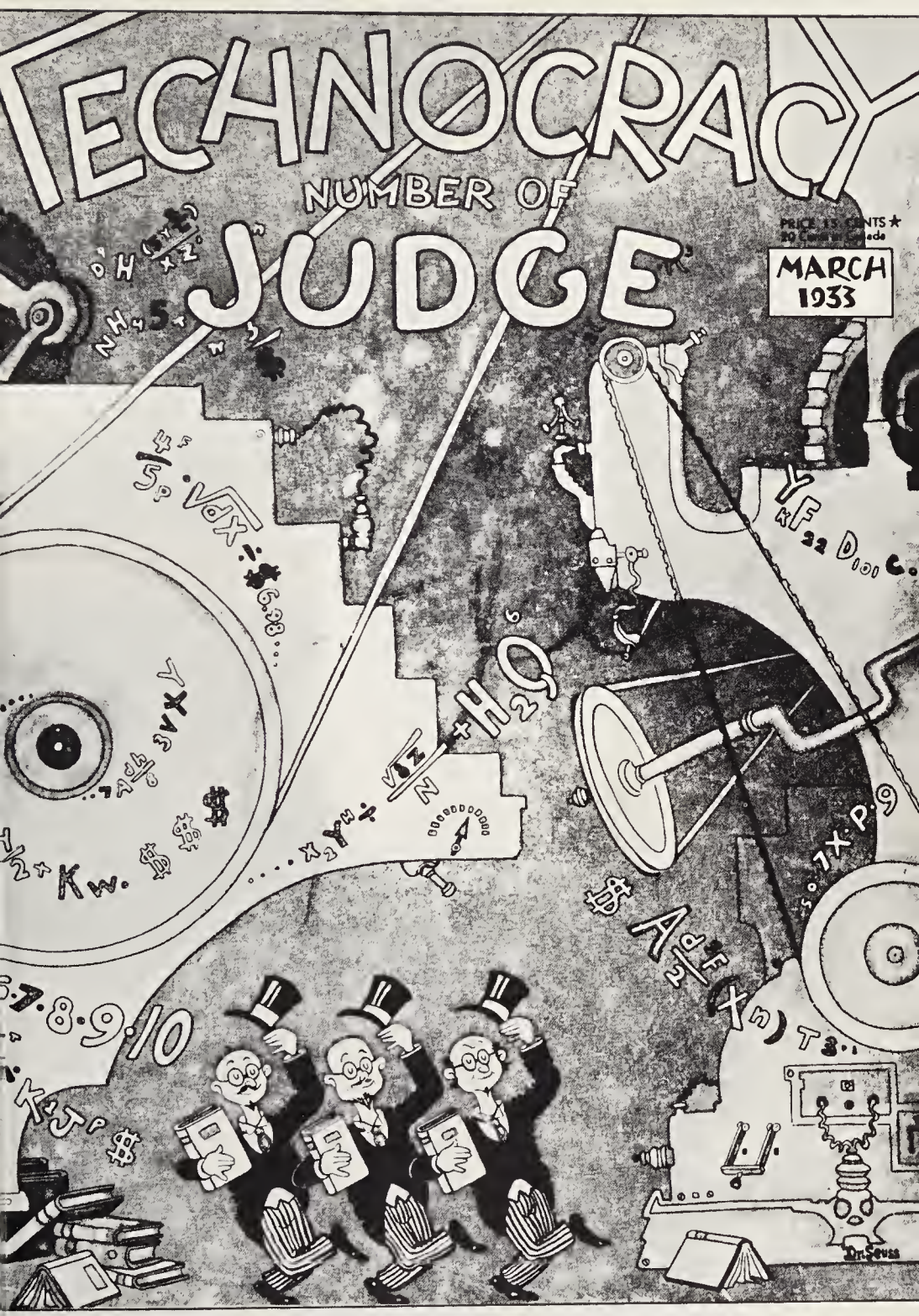
The second indictment, that such a system, in modern circumstances, cannot even maintain the continuous operation of the physical plant, however haphazardly, must be demonstrated by further analysis. To do this, the material on industrial growth, mechanization, and declining man-hours is brought together with a discussion of the flow of money through the channels of wages and salaries, savings and investment. The conclusions are a variant of the secular stagnation thesis. If savings by individuals or corporations are hoarded, the cycle of purchasing power is diminished and shutdown results; savings must be invested, that is, utilized to build new plant and equipment, and in the process return as purchasing power. But while, according to the economics involved, this process must continue indefinitely and at an accelerating rate, there are very real physical limits imposed both by the ability to consume and the finiteness of natural resources.

In fact, however, the growth curves studied indicate that the leveling-off process began before any such physical limits were reached. An indication of other limiting factors at work is the fact that presently installed equipment operates at low "load factors," or well beneath its physical capacity. What has happened is that investment goes largely, not into new plant and

Technocracy Chief Howard Scott became the focus of public attention again in 1942 when a series of Technocracy-sponsored advertisements, appearing in newspapers throughout the nation, urged the President to appoint Scott as Director General of Defense. (UPI)

"Technocracy Number" of *Judge* magazine in March, 1933, represents the public reaction to the scientific pretentiousness of the movement.

One of the first newsphotos of Howard Scott *(center)*, with associates M. King Hubbert *(left)* and Dal Hitchcock *(right)*, taken in front of Technocracy's New York City headquarters in January, 1933, after Scott "accepted the resignation" of four dissident technocrats. (Wide World)


TECHNOCRACY
NUMBER OF
JUDGE
PRICE 15 CENTS ★
MARCH
1933
Dr. Seuss

Harold Loeb, executive officer of the Continental Committee on Technocracy. (UPI)

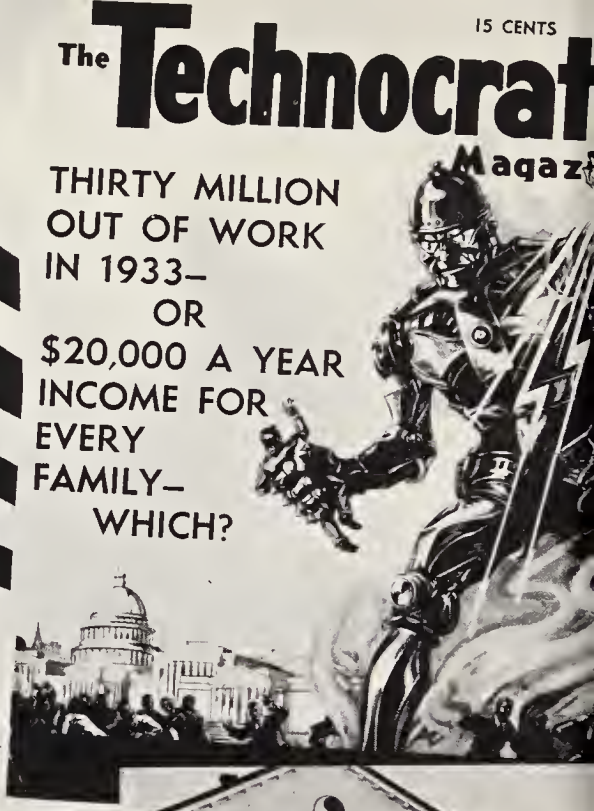
The "Gray Fleet" of the Detroit Section of Technocracy Inc. poses in front of the Detroit Institute of Arts in 1941.

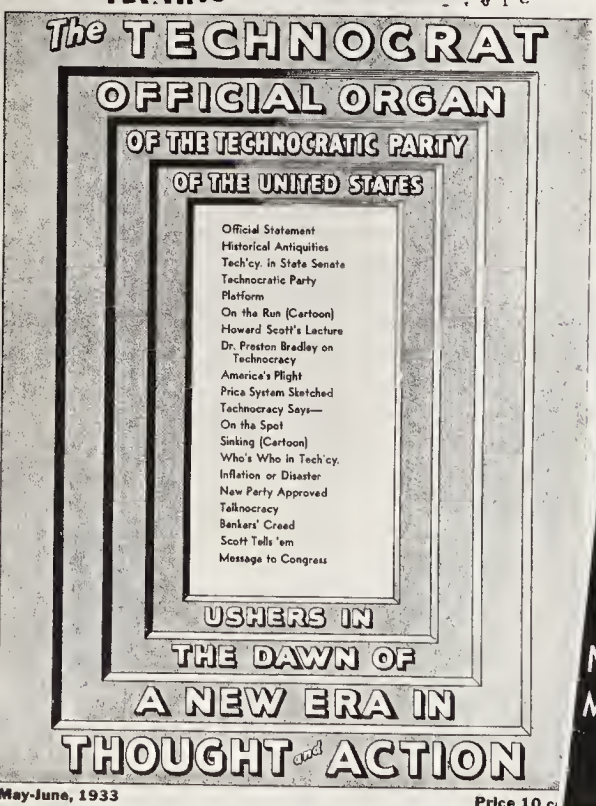
Charles Bonner, chairman of the Continental Committee on Technocracy.

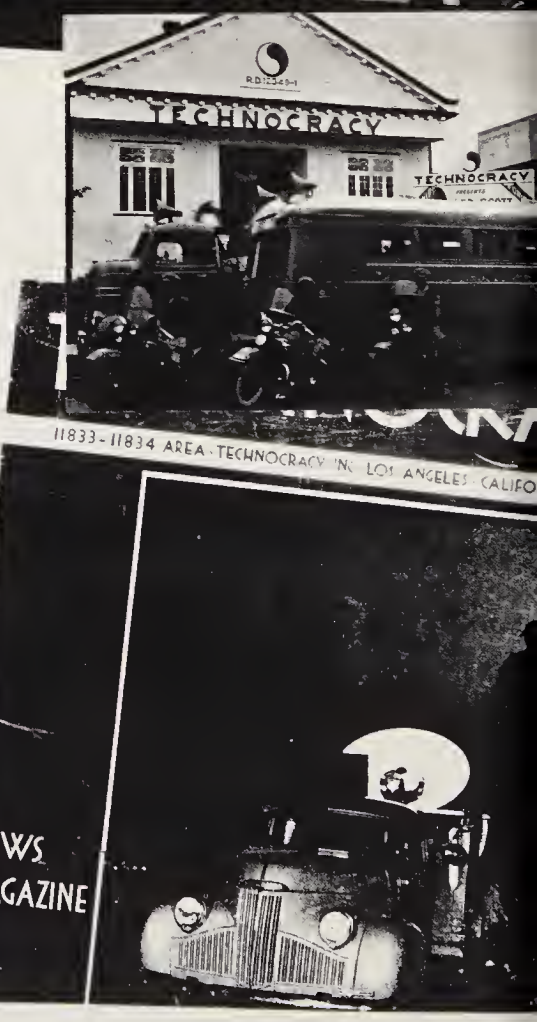
Below: Mural on the north wall of the Detroit Section's auditorium was designed and painted by Technocracy members.

Left: Detroit Section's headquarters, during World War II, featured window display on total conscription. Window flasher mechanism concentrated light on reading matter for fifty seconds, then reversed emphasis for ten seconds to the global map of the Technate, the minimal area for the maximum defense.

R. B. Langan, editor of the *Great Lakes Technocrat*, addresses an audience in 1945 at the Chicago Section of Technocracy Inc. where he served as an officer of the organization. In 1948 Langan was a leader of dissident Technocrats; in 1966 he was chairman of Technodemocracy.







Examples of official and unofficial technocratic publications.

equipment, but into paper securities. If new plants were built, the expenditures would result in augmenting low wage and salary groups' incomes, most of which goes into consumable goods and thus maintains production. But income from paper manipulation goes to high-income groups, who spend a relatively small proportion on consumable goods. Further, the technological process that results in producing more goods with less man-hours has a depressing effect on new construction, since present plants will not be operated to capacity as they are modernized. New industries supposedly take up the slack; but it has been demonstrated previously that, after a certain point, productivity increases faster than the small-income employment necessary to purchase the new items produced.

Thus the only way purchasing power can be maintained is through the creation of debt, either by means of installment buying, foreign trade, or government "pump priming." And, on the basis of past experience, the *Technocracy Study Course* concludes that these means are inadequate, that the situation will become worse rather than better.

After demonstrating that, under the "rules of the game" of the price system, production and employment cannot be maintained, the Technocrats' text goes on to level yet another indictment: against the system's "operating characteristics." The general picture is one of shoddy goods and practices, waste and social sabotage in the interests of business profits. Everything from razor blades to the American Medical Association, from railroads versus the St. Lawrence Seaway to legal practices, comes under fire—including colleges' "slavery to the Ph.D. degree." Under the rules of the price system, even at its best, "there is not a single field of endeavor where the best technical standards are allowed to prevail." Given this situation, there is no point in blaming individuals either for social evils such as poverty, waste, crime, or poor public health, or for their own antisocial conduct. The only recourse is to change the social rules of the game.

Summarizing its analysis up to this point, the *Technocracy Study Course* states that there are no barriers, apart from human beings and their social habits, to prevent the attainment of the

highest physical standard of living ever known. Man and his social habits must, therefore, be examined more closely before turning to a new social design. Such an examination shows that man, too, is a part of the natural order and may be treated as objectively as the subject matter of any of the physical sciences.

Noting that the study of man has invoked intense resistance, the *Study Course* briefly surveys the historical discoveries which have placed man within the physical world, from Copernican astronomy through geological findings on the age of the earth to Darwin and evolution. The last step in such strictly empirical and observational studies is the conditioned-reflex, behavioristic psychology of Pavlov. A human being is like any other mechanism: observations of action and precedent conditions enable one to establish cause and effect relationships. After discussing the classic conditioning experiments, the *Study Course* states that man differs from other animals by his ability to sustain higher orders of conditioned reflexes and to be conditioned by fewer repetitions. Language and writing are explained in terms of these higher reflexes; the inhibition and extinction of conditioning is also discussed. Conditioned reflexes and conditioned inhibitions are seen as the mechanisms of all social control, from the motorist's stopping at a traffic signal to the soldier's saluting an officer's uniform and risking his life under shellfire.

While conditioning can explain similarities in social behavior, the problem remains of dissimilar individual behavior under similar external circumstances. The answer is found in basic biological differences, with stress on the influence of glandular secretions. The *Study Course* notes that such individual differences, and racial differences as well, have nothing to do with superiority or inferiority; but two pages later it also concludes that "upon biologic fact, theories of democracy go to pieces."

This conclusion is reached from studies of "peck-rights" among animals. These studies have shown that, left alone, any given group of animals will establish a rigid order of priority among its members. The same phenomenon may be observed among children on a playground and among workmen of the same rank. From these observations is derived the concept of

"functional priority." The assumption is made that in any situation or in any organization, a "natural priority" would assert itself among the individuals involved. A social organization that recognizes these natural "peck-rights" will be stable, and one that does not will be unstable. Selection of military officers on criteria other than their ability to command, business staffs appointed on the basis of nepotism or pecuniary considerations, and "mistaking social position for ability" are all cited as examples of the latter situation—the subversion of natural "functional priority." (No distinction, conceptually or in the various illustrations, is made among biological differences, a kind of "raw" authority differentiation, and differentiation of ability and performance relevant to the requirements of a specific task or role.)

Returning to the subject of social uniformities and individual differences in behavior, the *Study Course* introduces the concept of social customs. Customs account for uniformities within a society; cultural relativism is given due note. Allowing for a range of behavior within the limits prescribed by custom, the *Study Course* points out that similar behaviors are caused by reaction to a similar set of "environmental circumstances." (No distinction is made between physical and social environments, the "environmental circumstances" at times seeming to apply to one or the other or both.) Thus, social change cannot be brought about by moral exhortation but only by changes in the external environment. If the environment is not changing and if the social customs to which people have been conditioned enable the basic needs of food, housing, and clothing, plus "normal social relationship," to be met, social change is very slow or nonexistent. But the environment has been changing rapidly throughout the industrial era; and, as part of that complex, man's social habits must also rapidly evolve, especially since the old ones are incompatible with even the minimum biological necessity of feeding the populace.

The form and the direction that social change must take in establishing new customs is the subject of the last two chapters of the text. This is Technocracy's design for a social order to

replace the price system. It is approached in three steps. First is a discussion of the trends that are shaping the broad outline, or determining the limits, of such a design. Second is a delineation of the functions that design must perform. Third is an outline of the design itself.

Three master trends, interrelated, are summarized: the shift from small independent units of production to large interdependent units; the diminishing part played by man-hours of labor in production; and the shift away from individually owned units. There are two important consequences of these trends: (1) Increasing interdependence results in nearly simultaneous oscillations of production among all units and in the dependence of the entire population on the uninterrupted operation of those units. (2) Because of the relationship among technology, man-hours, and abundance, any distribution mechanism based upon man-hours of human participation will not work.

The continuation of major technological trends is predicted: expansion of productive capacities, increased substitution of extraneous energy for human labor, increased efficiency of equipment, integration of units under larger ones "under unit control and operation," and increasing operating load-factors until the theoretical limit of one hundred per cent is approached. Social controls must be adopted "which most nearly conform to the technological operating requirements" of the tendencies cited. Such controls will result in the highest physical standard of living, public health, and social security the world has ever seen, with a minimum of labor.

At this point, two crucial assumptions are made. While the approach seems to be one of exploring the limiting conditions imposed upon the social system by its technological base, what is really done is that one set of possible social controls which could operate within those limits is detailed as being *determined* by the "operating requirements" of technology. Next, it is asserted that only those who are familiar with the details of the technological mechanism can design an adequate system of social controls—thus, "scientists and technologists" drew up Technocracy Inc.'s design.

What precisely is this design? The *Study Course* begins the description by looking at a total population, on the one hand, and at the job to be done, on the other. Population may be divided into young and old dependents, people in antisocial activities, and those who are performing some "useful social service." The last-named category must somehow be organized so that all jobs are manned, from production through the various health, education, and recreational services. In such organization, the most capable people, in terms of both training and innate characteristics, must be placed in the appropriate jobs. Provision must be made for individual initiative, and the resulting structure must be able to provide for technological and organizational changes.

Within this organization, which would comprise the entire working population of the continent, the main subdivisions would be on the basis of the tasks performed. As a model of such a functional unit, the *Study Course* examines the organizational structure of the telephone company. (The "financial superstructure" is, of course, to be disregarded.) Three of its characteristics are cited: (1) it continuously maintains in operation a complex, far-flung array of technical equipment; (2) it can handle both technical and organizational change without interruption of service, as demonstrated by its record of successful expansion; and (3) it must have worked out ways of placing the right people in the right jobs, as witnessed by its competent performance.

The *Study Course* raises two questions about the telephone company: (1) How are personnel selected for their jobs? (2) How are technical decisions arrived at? Personnel are not elected but are appointed by those familiar with both the technical requirements of the position and the qualifications of the individual. A mistaken appointment, it is asserted, will show up in inadequate performance, in which case the person will be shifted until he ends up in a job which he can handle adequately. The second question is answered in terms of the job to be done and the limits imposed by physical laws. On this basis, projected solutions to a problem are tried out experimentally on a small

scale, then the successful methods are adopted by the organization as a whole. Thus the chief executive (in technical matters) carries out designs originated by the research staff. These characteristics of the telephone company's operation are felt to be inherent in any functional organization. Such an organization is declared to have "no political precedents" and, since it works, "it must also be in accord with the biological nature of the human animal."

In the Technate or technocratic society then, basic units would be a series of "functional sequences." These would include both industrial sequences, such as transportation, communication, and all the major industries, and service sequences, such as education and public health. In addition, there would be five special sequences: Research, a separate organization with units attached to all the other sequences; Social Relations, necessary to handle many of the tasks now carried on by the judiciary, and set up on an area basis; Armed Forces, including a Continental Constabulary to replace scattered local police forces; Area Control, coordinating various sequences and units within local areas; and Foreign Relations. The directors of all the various kinds of sequences would compose the Continental Control, electing one of their number as continental director. He may be recalled by two-thirds of the Continental Control, but otherwise continues in office until the normal retirement age. On his immediate staff are the directors of the five special sequences. All vacancies in the sequences are filled by appointment from above; the director of each sequence is selected by the Continental Control from nominees chosen by men in the rank next below that of director. The *Study Course* points out that this is the design of "a strong organization with complete authority to act"; it is an organization of the entire population, including all the resources and equipment of the area, designed "to *operate* the social mechanism." All "philosophic concepts" of equality and democracy are unable to contribute anything to such a design.

State and local boundaries, which have no rationale except tradition, would disappear and would be replaced by an arbitrary system of designation by two-degree quadrangles of lati-

tude and longitude. (To provide a tangible link with the new society, Technocracy Inc.'s local Sections are numbered on this basis.)

The actual controls over the productive and distributive apparatus were specified. The three factors of (1) the ability of a fully operating technology to turn out a physical abundance, (2) the interdependence of operations, and (3) the dependence of the population on continuous, nonoscillating operation of production and distribution set the requirements for a modern distribution system. A means must be devised that will distribute goods and services to all members of the population, allowing the widest variety of consumer choice, and, at the same time, will make possible the precise registering of information required for stable and predictable control of production. Such information should include the total consumption record of each individual, a running total inventory, a record of the kind of goods consumed in various places at various times. It must also include the total amount of goods and services available in a given period and the over-all rate of consumption, enabling future production to be accurately planned and the resources available for plant maintenance and expansion to be readily known. Finally, the system must be able to provide instantaneous information on the state of affairs in any industrial or service sequence. It can be seen that what is proposed is a mechanism that would simultaneously fulfill the consumer-choice functions of a market system as well as provide the detailed information for daily and yearly planning of production.

The *Study Course* points out that money would not work in such a system. It could not provide the necessary information on personal, geographical, and temporal patterns of consumption; it is not really a measure of anything (the possibility of arbitrarily pegged "prices" is not considered). Its characteristics of negotiability and cumulation would tend to circumvent both the precision of the feed-back mechanism and the stipulation that distribution reach all members of the population. These two characteristics also leave open the possibilities of bribery and concentration of control based on cumulated wealth.

What Technocracy Inc. proposes is essentially a record-keeping system based on the issuance, to all adult members of the population, of nonnegotiable purchasing certificates somewhat like blank checks. The certificates would be issued for a two-year period, since this is the nearest approximation to some "natural" productive cycles (including agriculture) around which a "balanced-load" national budget could be planned. Since production could be set at a level probably higher than the ability to consume, and since simplicity in bookkeeping is essential, incomes for all adults would be equal. In operation, the total income available for a two-year period is calculated (charges for new construction, maintenance, and free public services having been deducted), divided by the population, and issued in booklets of purchasing certificates.

The certificates themselves provide personal identification by sex, occupation, age group (juvenile, working adult, retiree), and geographical area. The characteristics of the commodity or service purchased are added to the certificate when it is surrendered at time of purchase. The daily machine tabulation and sorting of all canceled or used certificates would provide the necessary information for precise adjustments of production, distribution, and service facilities. The process is illustrated in operation at the point of ultimate consumption, but presumably similar methods could be used at prior stages in the productive process.

Mention of the actual unit of cost and income has been left until last in this summary, although it is a central point in the *Study Course*'s argument. Because of the elimination of scarcity, price and value have no meaning. Therefore (and because of the need for precision) the basis of the system is the physical energy involved in all productive and distributive processes. It is argued that this can be measured exactly, in terms of a common denominator, both for the economy as a whole and for every individual process. Thus, the distribution certificates envisioned by Technocracy Inc. are called "energy certificates."

The final chapter of the *Technocracy Study Course* is devoted to detailing some further characteristics of its blueprinted soci-

ety. The discussion begins with a reiteration of the contention that physical environment and industrial system determine an individual's behavior. Thus, the "freedom of action" of the pioneer was limited by the available means of transportation rather than by legal restrictions. Human beings, the student is told, accept the limitations of their environment, organizing their activities in areas where barriers do not exist. For this reason, the technological design and operation of equipment are of "the most fundamental significance." Asserting that industrial operation determines "social end-products," the *Study Course* surveys those potential end-products. Two general principles are to be applied across the board in industrial and social planning: raise the load-factors of facilities in use, and improve the quality or life of the product to optimum (the point beyond which increased quality is reflected in incommensurate energy costs). By both of these methods, resources could be conserved and hours of labor reduced.

The distribution system already outlined would result in continuous operation of the equipment necessary to fill consumer demand; boosting load-factors further requires twenty-four-hour, daily operation as well. To this end, calendar revision is required. The significant time intervals are the day and the year. Individuals would work four days, followed by three days off, staggered in such a way among groups that operation would be continuous. Instituting this reform, along with around-the-clock shift operation wherever possible, would not only balance industrial operations but would remove the weekend strain on traffic and recreational facilities. For, not counting vacations, every day would be a "day-off" for three-sevenths of the working population. (Working time, once the system were placed in efficient operation, is estimated to be four hours a day, for 165 working days, with 78 successive vacation days. Thus the regimentation imposed by continuous operation and twenty-four-hour shifts would be repaid by vastly increased leisure time.)

One interesting application of the balanced-load principle is to automobile transportation—considered by Technocracy's theorists twenty-five years before traffic strangulation became

front-page material. Noting the great inefficiency of leaving most of the nation's cars parked much of the time, the Technocrats proposed a sort of national "rental" service. No autos would be privately owned. To take a trip, the driver would pick up a car from a garage nearby and turn it in at one near his destination. To prevent idle parking of cars away from garages, charges would be computed from a national average usage on a mileage-time basis. Thus, leaving the vehicle in one's possession parked for prolonged periods obviously would raise the time-mileage ratio and hence the charge. The cost-accounting system involved would provide complete information on the durability and serviceability of various designs of vehicles, tires, and equipment, information very useful in the production of new automobiles.

Communication would also be handled as efficiently as possible. Facsimile or address-coded mail is projected. Radio sets (and presumably television) would be handled in the manner that telephones are now—they would be "owned" and serviced by the Communications Sequence.

Agriculture would be reorganized so that operation would be industrialized as nearly as possible on a twenty-four-hour basis. Vast amounts of former agricultural land could then be turned into forest areas and national parks.

In the discussion of housing, the contrast between over-all social and technological planning and engineering on a smaller scale is again strikingly brought out. The requirements of designing an individual house and those of designing a system of housing for a continent may be quite different. For a housing system the basic considerations are the function of the buildings, the materials available, maintenance costs, and durability. For livability the housing units should be heated and air-conditioned, fireproofed, soundproofed, and vibration-insulated. Lighting would be indirect, and temperature controlled by means of the so-called heat pump. Because housing rather than a house is being designed, prefabricated panels that could be combined into a limited number of models are advocated. Material must be that which is abundant rather than that dictated solely by "modern" style, which may make heavy use of scarce metals.

Furniture would be included as "an integral part" of the design of the house.

In its final pages, the *Technocracy Study Course* comments generally on the implications of working downward from an over-all design—whether of an industry, a service, or a housing plan—rather than attempting to combine separately conceived parts. Besides the changes in durability, efficiency, and conservation of resources already noted, there would be other consequences. One would be an increasing standardization of industrial products. Another would be the relocation of industries, the complete rebuilding of all structures, and the probable abandonment of many old centers of population. "It is not improbable that New York City and other similar locations would be mined for the metal they contain." Finally, there would be the elimination of many occupational activities no longer needed. Other occupational groups would undergo drastic reductions, such as retail clerks, salespeople, and record-keeping personnel now engaged in activities that are largely unnecessary duplication.

Value and Ideological Appeals

The preceding section describes the essential framework of Technocracy Inc.'s theoretical system in its mature form. Several comments, which might help in classifying the system and understanding its appeal and roots, can be made. First, in one sense the Technocrats' claim of having established something new or unique seems to be valid. Technocracy's theoretical system is not new in terms of the specific content of the ideas, analyses, or even much of the "synthesis"—like all systems this is a compilation of previous work and thought. What is new is the utilization of ideas of "energy determinants" and a particular sociological and historical model as a basis for the organization of a movement for social change. The familiar scheme of the opposition between small, simple, independent social units, and large, complex, interdependent ones has had economic, political, and more generally "social" consequences extrapolated from it and used as a basis for ideology and organization. Similarly, the

idea of energy levels and social change had a long history, but it had not been a dominant theme in radical groups.[2]

Second, the philosophy and values explicit in the theory are of interest. Most obvious is a thoroughgoing materialism: observation and measurement of physical quantities is the basis of the entire argument. Sociological and cultural facts are nonexistent except as handled by a mechanistic form of psychological reductionism or as resistance to or interference with technological operations. This materialism is more than an analogy, and it is mechanical rather than biological. Man and machine are analytically one for the purposes of the *Technocracy Study Course*. Another orientation is also dominant—the stress on physical efficiency. The concept is an engineering one: given a problem, how can it be met in terms of the least physical costs (the greatest efficiency)? This is the overriding consideration in Technocracy Inc.'s design for a total social mechanism to replace all of price system society. (This efficiency emphasis can be shown to be a value choice rather than a logical necessity of the theoretical structure. Within the limits imposed by the operation of high-energy technology, more than one form of social organization can be shown to be possible; while technology closes some choices to society, it opens others. Even given Technocracy's basic balanced-load production/distribution planning and accounting system, it need not follow that all other aspects of the society must be organized in the manner outlined. As has been argued convincingly by such diverse commentators as Daniel Bell and Paul Goodman, it is precisely when technology reaches a developed state that a society can afford to be deliberately inefficient in some areas.)

But the choice of maximum efficiency as a value raises some questions. Another set of values, preferences, or orientation would seem to lie beneath the *kind* of efficiency selected. At least two other types of extremely efficient societies, besides the Technocrats', can be conceived. One is the perfectly manipulated "hidden persuader" land of triumphant market research and business values; the other is the equally efficient politically manipulated land of "1984." (Technocrats might reply that

advanced technology would not long tolerate such kinds of social operation—an answer that is a logical and empirical *non sequitur.*) Something else, then, seems involved in the superficially simple notion of technocratic efficiency.

One possibility is that despite the "tough" attitude they displayed toward "moralizing," the Technocrats were also motivated by the traditional goals of generations of radicals. The attempt to prove that high-energy technology must automatically mean good housing, health, and so forth, betrays other motivations at work. Perhaps most interesting is the stipulation of equal income in the new society. True, simplified bookkeeping would be served thereby. But might it not be argued that greater efficiency could be gained by utilizing income differentials in social control and motivation? It seems plausible, therefore, that equalitarian goals, goals of "plenty for all," are involved in the underlying value-system. (After the initial analysis of property and property rights, almost nothing further is said on the subject in the *Technocracy Study Course.* But the projected society is one in which "ownership" of anything beyond personal items becomes meaningless.) One aspect of technocracy as a movement is certainly the presence of socialist ideals without the "foreign" trappings of Marxian concepts and language.

Another set of values also seems implied in Technocracy's theory. These values are difficult to define, but may be thought of as encompassed by the outlook of the craftsman and as realized to some extent in the professional values of the architect and the engineer. There is a sensed or felt relationship of the "rightness" between man, materials, and environment. Things are made to be used, they have their own logic of design and construction, perhaps a blend of esthetics and functionalism. Political, business, perhaps cultural or symbolic considerations in general tend to intrude into this basic harmony or sense of fitness. Thus, two elements seem to be involved: a relationship to physical things, and a sense of professional standards which cannot really be evaluated by outsiders. Beneath his talk of the "rationality" of the machine process versus the irrationality of business and military values, Veblen may have had this kind of

distinction in mind. Although explicitly overshadowed in the *Technocracy Study Course* by mechanistic considerations, these kinds of values do seem to be present. One specific indication may be the assertion, contrary to classical economic dogma, that human wants and capacities to consume are finite. Conceivably, one might use his energy certificates to purchase forty suits instead of two or three; but somehow, the feeling is conveyed, this would hardly be "the thing to do."

Materialism, engineering efficiency, economic egalitarianism, and functional or professional standards of judgment, then, seem to be the values contained within the theoretical system presented by Technocracy Inc. Organizational and propaganda appeals are based on these values, especially technical rationality and economic welfare. "Abundance, Security, and Equal Opportunity" was a frequent slogan. Free education for all, to the limits of personal ability, and a national preventive health service are stressed as well as economic security and a high standard of living. Equally important, however, in the history of the organization, are other appeals attached in some cases only peripherally to the body of theory. The content of these appeals may have been derived from two sources: the personal preferences of the leadership, and pre-existing themes of protest available in the culture for attachment to "new" movements arising in times of crisis.

Technocracy Inc. consciously dissociated itself from the socialist tradition, Marxian or otherwise. Speakers and writers, for example, were forbidden to use the terms "capitalism" or "profit system" in criticisms of the existing order. (Interestingly, technological-economic analysis is an important strand in Marxism, especially in the works of Engels, although, of course, it is overshadowed in the total scheme by factors of class and ideology.) And, unlike the Continental Committee, Technocracy Inc. certainly did not regard itself as allied with liberal or progressive thought. In fact, some of its most bitter denunciation was reserved for liberalism; e.g., "the liberal mind is open at both ends and contains nothing."[3]

Another general body of attitudes and themes of protest re-

mains, within which some of Technocracy Inc.'s most prominent appeals seem to fit. In recent years the syndrome has gone under the labels of "nativism" or "populism."[4] In its most general sense, the protest seems to be that of the unsophisticated, provincial, xenophobic "little man" being overwhelmed by gigantic, unseen organized forces beyond his control. The notion of a final apocalyptic struggle is often involved. More specifically, themes of nationalism, antiforeign or anti-immigrant feeling appear, coupled with a vague anti-intellectualism. Big Business, Wall Street, or The International Bankers, perhaps along with professional or Party Politicians appear as the puppet-masters behind a historical stage upon which is enacted one great conspiracy.

Three kinds of evidence can be adduced in support of placing an important portion of Technocracy Inc.'s appeals within this tradition of protest. (1) The peculiar emphasis and intensity of some of the themes, far out of proportion to their relation to the basic theory. (2) The presence of all the major components in the syndrome, despite the fact that (3) some of the elements have no logical connection to the theories as expounded in the *Study Course* and elsewhere.

Thus, predictions of increasing economic difficulties based on analysis of growth curves are one matter; Howard Scott's strident prophesying of total collapse is another. The *Technocracy Study Course* sees business and politics (the classic adversaries of the "populist") as interfering with technological efficiency, and it has no place for them in the future society. But the tone adopted in Technocracy Inc.'s literature seems to be, to say the least, more intense than warranted by the theoretical disallowance. Howard Scott said in 1938: "Technocracy is the only organization in America that is immune to infection from the social syphilis of business, and its paresis of politics, and that is unafflicted by the dementia of democracy." "Moronity," "viciousness," "rottenness," "mockery," "deception," "fraud," are other terms applied to business and politics in the same article.[5] A 1939 article concerning a wrangle between Wendell Willkie's Commonwealth and Southern Corporation and the

TVA was titled "Cooties and Gasbags." (In this case, the Cooties—the C&S—were awarded "the signal honor of smelling worse than Washington"—the Gasbags.)[6] Repeatedly, Technocracy Inc. proclaimed that there are only two social categories in America: "chiselers" and "suckers."

The conclusion that a different social order was required for North America because of a unique position in regard to technological development and resource base is a theoretical one. The constant reiteration of Technocracy Inc. as "American" in contrast to "foreign ideologies" bears only tenuous relation to the theory. The Second World War anti-"Asiatic" policy, and the increasing emphasis on seeing history as a conspiracy directed from the Vatican, documented in a subsequent chapter, bear no relation to technological theories of social change but do fit in with part of the xenophobic tradition as it has developed in American culture. Similarly, Technocracy Inc. sees all proposals for foreign assistance by the United States as "international salvation" and "globaloney."

Finally, the assumption that technologists and physical scientists are the ones familiar with the processes that must be employed in setting up a coordinated industrial system does not necessarily say anything about other fields of intellectual endeavor. However, the attitudes of Scott and his followers seem clear. The *Technocracy Study Course,* in refusing José Ortega y Gasset's *Revolt of the Masses,* reveals that the author "so far as is publicly known, has never done anything of more importance in his entire life than to read books, talk, and write more books." Earlier on the same page, university professors are chided for their tendency to look down on the mechanics in the school's machine shop—for of the two, the mechanic's job "takes a considerably higher order of intelligence, both as regards training and in everyday performance."[7] The same writer, M. King Hubbert, in a book review of *An Orientation in Science,* compliments the authors "for omitting chapters upon economics, sociology, and the rest of the array of the so-called social sciences." Unfortunately, however, the last chapter in the book was written by a professor of philosophy:

> In literature, those who cannot write become critics: here, the representative of that mode of intellectual activity which throughout history has been the negation of the method of science has, for reasons not given, been elected, ironically, to write the chapter on the "method of science."[8]

In 1959, Wilton Ivie, currently the chief expositor of Technocracy Inc.'s ideas, discoursed on "Of What Use is History?" and concluded: not much. Histories of science, technology, and the geological history of the earth are useful. Art forms are "of passing interest and of casual use"; anthropology is "of more academic than practical value"; biographical studies of rulers and other heroes might serve "only as horrible examples of human conduct"; and "mythologies, astrologies, and philosophies of the past," being of no use at all, can be relegated to "specialists in the field of historical inconsequentia." In sum:

> The great bulk of historical information is a study in error, futility, chicanery, and degradation; only a small part is heroic and inspiring.[9]

The instances cited have been illustrative; many more in each category—apocalyptic collapse, abuse of business and politics, xenophobia, anti-intellectualism—could be provided from periodical and pamphlet material.

Such was the fully developed ideology and organizational structure of Technocracy Inc. Both evolved in the context of America in the Depression of the 1930's; both had to adapt to the changing external situation produced by the Second World War and the postwar economic and political climate.

VIII. National Service from All, Profits to None

From its origins, technocratic ideology centered primarily on internal economic problems of the North American Continent. While comments on communism and fascism are found in the literature of Technocracy Inc. prior to the Second World War, they are essentially passing references to nothing more than further examples of social futility. Fascism was seen as the last-ditch attempt of a crumbling status quo to preserve its power; communism as a "philosophy" unable to transcend the scarcity limitations of the Russian economy. Neither could possibly work in America. That was as far as interest went.[1] Technocracy Inc.'s publications do not reflect the concern in the 1930's with the growing strength and ambitions of Nazi Germany, the Spanish Civil War, or the Five-Year Plans and the Moscow Trials.

In this, perhaps, Technocracy was not unrepresentative of a sizable portion of Americans caught in the isolationist mood. But the ultimate military impingement of worldwide political developments upon America could not be ignored. At a very minimum the predictions of impending economic collapse would be face to face with a prosperity generated by wartime spending, postwar accumulated demand, and cold-war rearmament. And as it turned out, neither the conduct of the war itself nor the problems of postwar international politics were to be ignored by Technocracy Inc.

In the 1930's Technocracy had taken a position on war quite within the traditional radical analysis: wars and rumors of wars were but another means of keeping the system going, making profits, and diverting attention from the real issues of social change. Howard Scott's lead editorial in the August, 1938, issue of *Technocracy* lays out in detail the attitude toward war, de-

fense, and peace. It opens with a denunciation of the hypocrisy of the American government's protest to Japan over the bombing of Chinese cities, citing at length the materials supplied to Japanese industry by Canada and the United States: "We are horrified at the Chinese dead, and we are elated over our profits in exports to Japan." Righteous indignation over Francisco Franco's bombings is more of the same, since "American business sells the sinews of war to both sides, chiefly to Franco." The cry for American defense is suspect, too: on the one hand, its real purpose is to enable federal pump priming to aid the capital goods industries; on the other, the military establishment is an anachronism in this technological age. Scott's respect for the military's efficiency, discipline, and lack of "business values" has been cited. But at the same time, he notes that military tradition has evolved on the basis of "killing the enemy by the crude method of hand tools" and has been "embellished with the caste distinction of the professional soldier and the mercenary."

Just as technology has doomed business and politics, so it must transform the military. In the past, warfare has been a kind of national business, aiming at conquest for economic gain, conducted by regimented masses led by the officer class. The egalitarian efficiency which Technocracy Inc. sees as the technological imperative will dominate warfare too. Technological war will be utterly ruthless, since the motivation of economic enslavement of a reasonably intact enemy will no longer operate. And it will be waged by technically trained personnel whose skills are the "direct antithesis of the military training of the past or present," who suffer not from the "fungus of tradition" which turns out officers and gentlemen. But, Scott continues, why should we fight anyway? There is nothing the rest of the world has that North America needs or wants; therefore, "This Continent has everything to lose and nothing to gain in engaging in anybody's war anywhere off this Continent."

Why die for the price system? The death total of automobile accidents, homicides and murders, and industrial accidents in 1937 was more than American military deaths in the First World

War. Technocracy objects to military warfare "not merely because death is involved; death is involved in all life, but because military warfare kills off the physically fit and permits the unfit to live and propagate." Equally disastrous are the "casualties of peace," which reduce the fit to unfit and which increase the poverty and progeny of the unfit.

> We object to the inertia of the pacifist, and the senility of the Price System militarist; both are psychoses of this Price System; both are the expressions of national defeatism in this Power Age.

Why fight to maintain the peace of a price system that is more dangerous than war? Has such a state of defeatism been reached that people feel nothing positive is worth fighting for? Scott poses the question, "Is the liberty and the freedom of this Price System worth the expenditure of a single human life in its defense?" And he answers the question with "Hell no!" The only war worth fighting, he concludes, is the war against the evils of price system peace.[2]

From this position, one would predict that Technocracy Inc. would oppose the Second World War, would oppose "taking sides" in that war, and would oppose American intervention. Every issue of *Technocracy* after October, 1939, was devoted to policy statements by Scott on the war; that issue itself began with a strident denunciation of intervention: "Pax Americana." (The article was reprinted as a pamphlet but withdrawn with United States entrance into the war.) In that article, Howard Scott repeatedly insisted that the Second World War was essentially a repetition of the First World War and that it would no more solve any problems than did the first one. Furthermore, what Europeans and Asiatics did to each other was no concern of Americans. The United States was under a gigantic barrage of propaganda to create a profitable neutrality which would lead to entrance into the war itself. But the warning was sounded by Technocracy Inc.: leaders of Canada and the United States must be "notified in no uncertain terms" not to become involved again.

What is the good of it all anyway, if the job has to be done over again every twenty-five years, Scott asked. All that had happened as a result of the First World War was that "tory democracy" was preserved in England and France while Germany, Italy, and Soviet Russia were compelled to turn to regimes which Scott characterizes in each instance as being both "more efficient" than those they replaced and, at the same time, the "embodiment of the will of the people" in the countries involved. And, Scott said, the people of this continent have no quarrel with any of the peoples of Europe.

Applying technocratic analysis—and writing at the time of the Hitler-Stalin pact—Scott saw the war as caused by a conflict between British imperialism, based on colonial possessions and supported by seapower, and a new, stronger, "contiguous continental order." Like the Pax Romana before it, the Pax Britannica was collapsing under the impact of physical and economic change. A united Germany and Russia would form a nearly impregnable area, one that could collapse only from internal causes.

But the fragility of the German-Russian alliance could not be predicted by a theoretical scheme that regarded political differences as inconsequential. As a military analyst, Scott proved himself no better than a good many of his contemporaries: he declared both the Maginot line and the Germans' West Wall impregnable to attack. In fact, he claimed the advantage was with the Germans, for they were on the defensive.

All of this was by way of again reinforcing the conclusion that America must not enter the war: while England expected Americans to "die for dear old Britain," intervening on any side, to attack or defend "any rotten European structure," could only lead to "national suicide."

Scott again called for North American organization to produce and distribute abundance and thereby lead the rest of the world to a new stage of civilization. In the process of such organization, "the American speaking people" of the continent would secure its impregnable defense—Pax Americana. He concluded with the declaration:

> Technocracy proclaims that those Americans who conspire to make war off this Continent are guilty of Continental Treason.[3]

Scott's article in the following issue of *Technocracy,* December, 1939, repeats the same themes, but at less length. He labeled as "balderdash" the claim "that if we do not stop Hitler over there we will find him on our own shores"—no European alliance could provide the million men and the necessary supplies for such an expeditionary force against North America. But at the same time, in one paragraph, Scott provided his position with insurance by calling for "a continental defense system second to none in the world."[4]

The Director-in-Chief of Technocracy Inc. had told his audience in 1939 that "neither Canada nor the U.S. could discuss war without permission of this organization."[5] In "Pax Americana," he had demanded that political leaders be "notified in no uncertain terms" that North America must stay out of the Second World War. Within twenty-four hours after the British declaration of war on Germany, Technocracy Inc.'s "Mobilization for Peace" began. Howard Scott sent a lengthy telegram to Canada's Prime Minister Mackenzie King on behalf of all Canadian Technocrats. The telegram said that Canadian Technocrats were available for Canadian and continental defense, but it went on to state Technocracy Inc.'s opposition to the war, to North American participation in it, and to conscription of Canadians for any war fought away from North America.

In the context of Scott's published statement about "Continental Treason," the next to the last paragraph of the telegram is particularly illuminating. Attempts to conscript North Americans for warfare abroad are considered by Technocracy Inc. as "a violation of the destiny of this Continent. Technocracy Inc. contends that this Continent at its imminent rendezvous with destiny will hold all such violators of this Continent's progression responsible for their acts."[6]

A one-paragraph statement of opposition to conscription for war off the continent was prepared at the same time for use in

telegrams from Sections, organizers, and individual members to the Prime Minister and members of Parliament.

On June 21, 1940, an Order-in-Council, issued by the Canadian Department of Justice, banned Technocracy Inc. in that country. The organization later claimed that the ban had been instituted because the Yorkton, Saskatchewan, Section on June 4 had announced the program of total conscription (to become official policy after mid-1940). The opposition of Quebec to any form of conscription, and its political influence in the Canadian government, was offered as evidence for the ban, since Technocracy Inc. had not been included on lists of organizations recommended to be banned on June 5, 12, and 13, 1940. In the House of Commons, on July 16, 1940, Prime Minister Mackenzie King had answered a query from a member of Parliament on the matter by stating that "the literature of Technocracy discloses, in effect, that one of its objectives is to overthrow the government and constitution of this country by force." When, on October 15, 1943, the Prime Minister personally announced in Parliament that the ban had been unconditionally lifted, Technocracy Inc. took this as an implicit admission that his prior position had been mistaken.[7]

Whatever the motivations for Canada's three-year ban on Technocracy Inc., shortly after its institution the official line of the organization underwent the first of a series of changes exhibiting a flexibility of maneuver perhaps second only to the renowned agility of the Communist party. In July, 1940, Howard Scott presented the new position in the first of two articles entitled "America—Now and Forever." Instead of being merely another European ideology (less important than the cunning of British propaganda), fascism was now discovered to be an armed imperialism for which the riches of North America provided a natural target. Technocracy Inc. then asserted that under the price system the defense effort must inevitably be bungled, and applied its own criteria of ruthless efficiency in outlining the job to be done. At the same time, the requirements of defense—and later of war—were linked to the process of social change.

An effective defense, Scott argued, could not be maintained on either a national or a hemispheric base; it required the consolidation of the North American Continent into one unit. Thus the old theme of a North American self-contained technocratic state was now seen to be determined by defense needs. But this consolidation could not be done, Scott asserted, on the basis of military alliances or political treaties; there must be a complete social and cultural unification. The demands of technology—and mechanization to the limit was the first prerequisite of an adequate defense—required that "alien cultural intrusion" must be "annihilated." There was no time for assimilation. Scott was explicit in his targets: the culture of French Quebec and the "hacienda culture" south of the Rio Grande were selected for extermination.

The Good Neighbor Policy toward South America was worse than an illusion, in Technocracy Inc.'s view, for those nations "are by language, culture, and race fundamentally fascist." To deal with them on the basis of mutual understanding is impossible; the only thing they understand is the language of force, "powerful enough to be utterly ruthless."

Technocracy Inc.'s defense area included Central America and the northern tip of South America. Scott announced that the United States should acknowledge its intention of consolidating all this continental area under its control, including Greenland and the Galápagos Islands. (He was silent about Canada.) Foreign possessions within the area designated should be deeded to the United States in payment of past war debts or present aid, and the rest must be taken "by purchase, negotiation, or the force of arms." Scott noted in passing that this program would be opposed by those who would scream "imperialism": the "chicken-hearted liberals," "maudlin sentimentalists," "negative native Americans," and "hyphenated Americans."

Technocracy Inc. went on to specify how such a defense system must operate. This, in July 1940, was the first offering of its program of total conscription, the plan which would be pushed for the duration of the Second World War and some

months thereafter. And the conscription advocated was indeed total. A three-year compulsory defense training for both males and females between the ages of eighteen and twenty-one was to be instituted, in order to provide a standing force of one million "engineer-mechanics." The military was to be unified under Army, Navy, Air Force, and Fortifications commands. Civilian activity was to be conscripted too; transportation, communication, mining, public utilities, and manufacture were to be taken over by the government, as was all corporate wealth, financial institutions, exportation, and importation. Private transfer of funds to foreign countries would be prohibited. The federal government would assume all debts of cities, counties, and states and, in turn, would levy the taxes formerly collected by them. Civilian industry and services would be run by "functional commands" operating under an over-all "technological command." This command, together with the armed forces, would be directed by the commander-in-chief.

Several other points in the total conscription program as originally promulgated and subsequently maintained are noteworthy: (1) All bars would be closed for "national safety," with alcoholic beverages restricted in sale to liquor stores, hotels, and restaurants. (2) All foreign language newspapers and radio programs intended for American consumption would be abolished, as would (3) "hyphenated American" and foreign language associations and fraternal societies, whatever the purpose for which they had been organized.[8]

(Technocracy Inc. later elaborated on its program of total conscription, explaining among other things how production and distribution would be set up and how purchasing power would be allocated.[9] All citizens would receive the same pay as members of the armed forces; no executive would receive more than a general, and no one less than a private. Food, clothing, and medical standards would be identical to those in the armed services. Dependents would all receive the same allowance regardless of rank. Thus, Technocracy Inc.'s program was widely expounded as "taking the profits out of war.")

The program was obviously more than a projection of the

most efficient plan of military defense. In introducing it in 1940, Scott himself had pointed out that defense would hasten social change and that his defense plan was a means of transition to the new society.[10]

Several other aspects of Technocracy Inc.'s defense program are worth comment. Assuming both that total conscription would be needed for efficient conduct of war—or perhaps even for survival (the myth of totalitarian "efficiency" was strong in the 1930's and 1940's)—and as a transition to Scott's Technate, some questions remain unanswered. Why the virulent attack upon the "alien" cultures of French Quebec and Central and South America, and the insistence that they be exterminated by force? Why the superpatriotic insistence upon "one language, one culture"? Why elevate the banning of all foreign language organizations and periodicals into a major item of policy; was this a requirement of "efficiency," or were other pressures involved?

Two kinds of answers seem possible. One is that Howard Scott was opportunistically compensating for his organization's 1939 antiwar stand with 110 per cent Americanism. Presumably Technocracy Inc. would not care to be banned in the United States as well as in Canada. A tirade against South American "fascism" could be an effort to overshadow some of the prior statements about European fascism which might not seem astute in the light of subsequent world events. An alternative answer might be that in a period of perceived crisis, Howard Scott could drop ambiguities of intent; he had previously referred to the "elimination of minorities" in the new society, but the references might have meant business and political groups. Now the phrase seemed to mean precisely what it said.

The evidence, as is so often the case with Technocracy Inc., is unclear. At its inception Scott had declared the organization to be "free from the prejudices of partisan politics, race, creed, or color."[11] Its official bylaws opened membership to any citizen of a North American country or dependency; people of "every religious belief or creed" were welcome, and introduction of "religious issues" into the organization was grounds for dis-

missal. No article in a Technocracy Inc. magazine or pamphlet had ever denigrated a racial, ethnic, or religious minority. Yet, at the same time, there is evidence of an underground current of nativism. A former Section director has alleged that Scott told him to "look out for Catholics and Jews" when screening membership applications. Jewish Technocrats, however, were prominent in at least one Section.

Early in the history of technocracy, a reporter recounting some of the stories told about Scott, or which Scott told about his past, noted that:

> Running through the Scott legends, like a single current gold thread through a multi-colored tapestry, is the idea that the Church of Rome recognizes in the engineer-scientist-revolutionary a deadly enemy to the validity of its world-wide property claims.

Thus, Scott in Montreal allegedly precipitated a riot when some Jesuits shouldered his girl off a sidewalk; in Mexico he supposedly shot an archbishop who had ambushed him.[12] Note that the "Fascists" of Central and South America and the "alien culture" of French Quebec both happen to be Roman Catholic in religion.

If the call for the annihilation of certain minorities seems to be a part of a persistent current of Howard Scott's thought, there is some evidence that another nativist element in Technocracy Inc.'s wartime program was dictated by expedience. In *Technocracy,* November, 1941, the brief statement about the organization on the contents page mentioned that: "Aliens, *Asiatics,* and politicians are ineligible" for membership (italics added). A standard statement about Technocracy Inc., its ideas, history, and organization, which was widely used in magazines and leaflets during the 1940's, listed Asiatics as excluded from membership until about the end of 1946, when the term was deleted.[13] (Before new editions of pamphlets were reset, existing stocks had the offending term heavily inked out, a tactic of dubious merit for an adroit change of line.)

No explanation for banning Asiatics from membership (or

for later dropping the term) was ever made in any article or statement released to the public. However, a policy letter written by the then Assistant Director, Division of Organization, CHQ, in November 1942, in response to a query by a local Section director, gives Technocracy Inc.'s official rationale:

> The stated policy of Technocracy Inc. is that Asiatics, aliens, and politicians are ineligible for membership. The Filipino comes under this classification, and is therefore not eligible for membership in Technocracy. We have had ample demonstration of what happened in the case of thousands of Japanese who became U.S. citizens and the same thing could very well occur with Filipinos, Chinese, or other Asiatic and Oriental races. The Philippine Islands are no longer a United States possession, and from present indications they are likely to remain a part of the Japanese Empire, at least for a considerable period in the future. There is no evidence to show that the Filipinos rendered any material assistance to our Armed Forces when they had their backs to the wall fighting the Japanese enemy. The policy in this respect may seem rather hard to the Filipino who has become a U.S. citizen, but until the situation becomes more clarified, that policy will be retained. We fully understand the circumstances.[14]

(The same letter deals with the problem of Negroes interested in Technocracy Inc. They were to be sought; but, aside from open public meetings, Section functions were to avoid "mixing the colors." Because of local and national conditions, Negro Technocrats should meet in their own homes, and would be kept on the rolls as members at large until Negro Sections could be set up.)

Back in 1935, surveying the international scene, Howard Scott had recorded Japanese industrial achievements and remarked that "technological development is not the particular possession of any race, creed, color, or national enterprise."[15] And technological development was the mainspring of Tech-

nocracy Inc.'s ideology. Perhaps its subsequent ban on Asiatics was a response to the same kind of West Coast pressures that led to the New Deal's panic evacuation and internment of Japanese-Americans. (Newspaper columnists had reported that in his speeches Scott had "used the Asiatics as a whipping post," urging their deportation prior to the Second World War. Scott was quoted by the *Herald Tribune* as stating, "We have never permitted Asiatics to become members of Technocracy Inc.," linking the ban to protests against war material shipments to Japan and seeing the current war as vindication of his position.)[16] But Technocracy Inc. held politics and its ways in contempt; Technocracy Inc. was based on science.

Between the July, 1940, presentation of the total conscription program, with its demand for forceful unification of a North American defense area, and the American entrance into the Second World War, Technocracy Inc., in its CHQ bulletins and official magazine, concerned itself with elaborating the details of its defense program and commenting on related matters.

In February, 1941, Technocracy Inc. summarized its defense position under the slogan: "Territory, Time, and Technology." "Opposition to American entry into the wars raging outside our Area is a keystone of Technocracy's basic policy," not as a pacifist position, but rather as one of building adequate defense as rapidly as possible. In order to gain time Technocracy Inc. now proposed a grant of fifteen billion dollars in goods to Great Britain, as well as cancellation of eleven billion dollars in war debts, in return for British possessions in the continental area. Aid to China was also urged.[17]

April, 1941, saw a reiteration of the thesis that defense and war would not "save" the price system, but would accelerate its collapse as more machine tools, modern plants, and new equipment were installed. As Technocracy Inc. saw parts of its defense program being realized, it hinted that the soundness of its ideas was being recognized at high government levels. Thus, Howard Scott had placed "on record officially" at Washington and Ottawa the March 18 call for Canadian-American coordi-

nation, and "acknowledgements were immediately forwarded to CHQ in response." Then, on April 21, Canada and the United States had agreed to a common arms pool following a weekend conference between President Roosevelt and Prime Minister Mackenzie King.[18]

Throughout 1941, as the industrial defense build-up accelerated, Technocracy Inc. bulletins glow with the fervor of prophecy fulfilled: every new factory, mechanized process, and admission of the need for large-scale planning was a vindication of the organization's analysis. Its own program continued to be elaborated. One of its most popular items, to be publicized throughout the entire war period, was a design for a Flying Wing superbomber. Announced in 1941, with specifications calling for a wingspread of 330 feet, a range of 12,500 miles, a ceiling of 35,000 feet, speed of more than 300 miles per hour, and a bomb load of 50 tons, it was said to be far in advance of anything that had yet been produced or designed. Large drawings of this airplane came to dominate Section office window displays and halls, and when, shortly after the end of the war, a somewhat similar Flying Wing aircraft was actually built in small quantity for the U.S. Air Force, Technocracy Inc. once again felt its foresight had been vindicated.[19]

With the November, 1941, issue of *Technocracy* magazine, Howard Scott revived one old theme and inaugurated a new one destined to become increasingly central to Technocracy Inc.'s world perspective. British national leadership was taken to task for "stumblebum statemanship" and the international decline of the British Empire was again noted. But the central point was British failure to realize after the First World War that Russia would be her natural ally in another war. Instead, "tory imperialism" consistently acted against England's interests, beginning with intervention against the Bolsheviks and ending with the lack of any attempt to create a "second front" in Europe after Germany attacked Russia.

The answer, Scott implied, might lie in the motivations of the British upper classes, some of whom had been avowed Fascist

sympathizers and who might now be prone to a negotiated peace with Germany. After discussing British and French Fascist orgainzations and commenting on the internal undermining that helped to make Belgium and France easy prey for German conquest, Scott asserted that the present war was one against fascism as a social system, not merely against Nazi Germany. Communism was asserted to be only a "minor menace" in North America, and Asiatic fascism had no roots here; but European fascism "has gained a foothold on this Continent." "The followers of European fascism in this country and this Continent, with their alien ideology, constitute the greatest single cause of national disunity extant."

Abroad, Britain could not hope to hold off against Fascist Europe alone, only maintenance of Russia as an ally would stay Fascist advance. At home, Fascist sympathizers were doing their best to prevent aid to Russia. Despite the minimization of Russia's role by the press, she was the crucial factor in the conflict.[20] The role of Soviet Russia, first in the European war, then as an agent in worldwide social change, was to be increasingly emphasized in the following two decades.

Technocracy Inc. felt that the war would accelerate social change: the final crisis was at last at hand. Simultaneously, it had been feeling its organizational strength. Both tendencies came to a climax with American entry into the war. On December 7, 1941, Howard Scott sent a telegram to the President, placing at Roosevelt's disposition "the entire personnel and equipment" of his organization and pledging its "unqualified support to your leadership of our country in its armed conflict against the fascist aggressor nations of the world." Scott further urged a declaration of war against all thirteen signatories of the Axis pact. On December 24, a release to its members from CHQ emphasized the magnitude of the war and the effort needed to win it; it cited Technocracy Inc.'s anti-Fascist record and urged the use of gray car sound units and Section headquarters for civil defense work.[21]

Then on December 31, 1941, Technocracy Inc. made its

culminating move—a brief statement was issued "for immediate release through all channels of publicity available to the Sections and members of Technocracy Inc.":

> TOTAL WAR STRATEGY DEMANDED
> DIRECTOR-GENERAL OF DEFENSE NEEDED
> TECHNOCRACY URGES PRESIDENT CALL HOWARD SCOTT

The statement reiterated that total war could not be fought under the guidance of business and party politics. It further asserted that Technocracy Inc. had the knowledge and the vision to install the needed program; the necessary ability and statesmanship did not exist among business leaders and politicians.

> Technocracy puts forward, with full realization of the gravity and enormity of the task, the name of the one man in America who has demonstrated the knowledge, the vision, and the capacity to install and execute the strategy of total war for the defense of America—Howard Scott.[22]

How seriously this was intended to be taken is impossible to determine. Taking the demand at face value, its intent becomes clear regardless of all the later tactical maneuverings of Technocracy Inc. The often ambiguous goals of Technocracy Inc. as an organization, and of Howard Scott as its leader, now seemed as lucid as they ever might be: Scott was to be installed as virtual dictator over a continent consolidated by force and organized as one vast army. The concept of the Technological Army had merged with that of the traditional military army.

Fantastic as the prospect might seem, a certain logic can be found underlying it. One of the motivations for the original little group around Veblen after the First World War was the experience of some of its members with the chaotic conditions in civilian industry, resource allocation, and transportation during that war. Throughout the 1930's Scott predicted the price system's imminent collapse. It is possible that Howard Scott really felt that the long-awaited day of doom was at hand—and that he and Technocracy Inc. could have a hand in the outcome.

The notion that total war would prove to be the breaking point

for the price system and its political administration was one that could be supported by evidence independent of technological determinism: the collapse of the European nations; the startling and rapid military defeats in December, 1941; and the background of more than a decade of a weakly functioning economy —all must have seemed to lend credence to the prospect of final crisis.

At the height of the Depression's economic crisis, the winter of 1932, millions had seemed to be looking to Scott—without any initiative on his part, without the presence of any well-formulated plans he could give them. Now, some nine years later, Howard Scott had a far-flung organization behind him (he need not be so dependent now on the whims of the press), he had a specific set of plans and proposals, and he had a crisis. Was it unreasonable to jump at the chance, a second chance?

Technocracy Inc.'s own explanation to its membership was typically ambiguous, seeming to imply more than it actually said. The complete statement reads:

> 2. *Tactical Action—The Background*
> America is in a state of transition, and Technocracy understands the forces underlying this transition. Technocracy also knows the probabilities of its outcome. Technocracy plays the role at present of an observer and an interpreter. This declaration—the call for a strategy of total war headed by Howard Scott—was made at this time as a contribution toward the efficient total mobilization of America in winning the war and the peace for America. The historical significance of Technocracy's position will not be apparent immediately.[23]

What happened, of course, the fatal flaw in the logic, was that the nature of the organization, its plans, and the nature of Howard Scott as it affected the first two, insured not victory but certain defeat.

The local Sections of Technocracy Inc. responded to Howard Scott's call to the limit of their ability. Perhaps the membership, too, felt that crisis was at hand; perhaps they were merely re-

sponding loyally and enthusiastically to the orders of their Chief. Radio broadcasts, billboards, press releases, and, to become most important, full-page paid newspaper advertisements began to appear across the country in all areas where units of the organization existed.

The first press reaction was minor and relatively straightforward reporting; the New York *Herald Tribune* on January 13, 1942, quoted the Technocracy Inc. release and filled in with an interview with Howard Scott. In Chicago, the *Sun,* in a brief news item and in a column by Jay Earle Miller on January 9 and 12, respectively, discussed Technocracy Inc. and its ideas. In the middle of January, fuel for what would be a small-scale public revival of interest in Technocracy was unwittingly provided by Representative Martin Dies, who chose to bring up Leon Henderson's technocratic past in a story carried by the wire services.

By the middle of February, 1942, CHQ of Technocracy Inc. could report that eleven full- or three-quarter-page newspaper advertisements had been placed by local Sections. It announced a voluntary campaign to pay for full-page ads in *The New York Times* and the *Washington Post.* The *Times* advertisement appearing on March 8, 1942, is significant in terms of Technocracy Inc.'s tactical position. Under the head "TECHNOCRACY Urges TOTAL CONSCRIPTION of Men, Machines, Material, and Money—With National Service from All and Profits to None!" the December, 1941, release was reprinted with the deletion of all paragraphs calling for Scott as director-general of defense. (The complete release, featuring the call for Scott, had appeared earlier in ads placed by Sections around the country.) The outline of the total conscription program itself now concluded with the statement: "to remain in force not longer than six months after termination of the war." And the slogan "America Must Liquidate Its Pro-Fascists At Home . . . Before It Can Defeat Its Fascist Enemies Abroad!" was displayed across the bottom of the page.

Credit for touching off renewed press interest in Technocracy Inc. was later claimed by New York's *The New Leader.* In its

own words, on March 14, the magazine presented a "dramatic Page One story [which] broke wide open the well-heeled resurgence of Technocracy under Howard Scott." Written by Daniel Bell, the story admitted that "the conventionally stereotyped slogans cannot be draped about Mr. Scott's organization." Bell noted the rejection of liberalism and democracy, the gray suits, the "American" appeal. But the big questions were: "Mr. Scott should explain why the organization is so intent on its alien-baiting," why the *Times* ad had deleted the call for Scott as director-general of defense, and what was the source of finances. The article twice mentioned that full-page ads had or would appear in one hundred newspapers, costing more than fifty thousand dollars. In a second article, one week later, being careful to avoid explicit labeling, Bell emphasized the similarities between Technocracy Inc. and fascism: a nativist appeal, an appeal offering something to everyone, an appeal for a natural elite. Bell rejected Scott's explanation that the organization's activities were supported solely by the funds of the members.[24]

Rapidly, front-page stories on Technocracy appeared in succession in two New York papers, the *Post* and the *Herald Tribune*. Other papers across the country, and the weekly journals of opinion, picked up the topic, commenting on the ad campaign and the nature of the organization behind it.[25]

All of the articles, with varying shades of bias or objectivity, hysteria or calm, had one theme in common: Technocracy Inc. was native American fascism. The ad campaign had directed attention not to the total conscription proposals but to the man and the organization backing it. In the midst of a war against fascism, Technocracy Inc's anti-fascist record collapsed in the face of a mixture of fact and fancy about Scott and his movement. Technocracy Inc. had to stand on its record of proposed "annihilation of minorities" and the forceful consolidation of the continent, as well as on the background and personality of its Chief who had publicly demanded to run the country in time of war.

It was what the *Herald Tribune* called the "trappings and mystery" of the organization that seemed to determine the reac-

tion to it, as much or even more so than its statements and theories. There was first the sense of shock at seeing a "dead" organization display so much activity. The press had buried Technocracy and ridiculed its leader back in 1933; now, Technocracy was "suddenly" and therefore mysteriously revived. While the 1932–33 movement had been made out to be merely a subject for jokes, it now seemed dangerous. Why? The "uniforms" were the foremost reason. Scott may have been partly right when he said: "The 'Post' has a uniform phobia so that if they saw 500 babies in diapers they would call it a fascist movement with uniforms!"[26] Given one social context, Technocrats' gray suits might have been likened to mailmen's dress; but in early 1942, they could only seem like a sinister fifth column, so much so that the *New York Post* fancied "clicking heels" among the American storm troopers. Similarly with other aspects of the organization. The Section latitude and longitude designations became "secret numbers," an ambiguous statement about final political action became instructions for a coup. (In defense, Technocracy Inc. declared this statement meant "a constitutional national referendum to achieve an orderly transition.")[27] The "fleets" of gray cars, the publications, and above all the "100 full page ads" (the final report to the membership listed only twenty-two ads, a few of which were one-half page)[28] proved that there must be vast and sinister financial interests behind Technocracy Inc.

Curiously, if Howard Scott's call for his appointment as director-general of defense was based on an unreal estimate of the situation, but with a certain degree of logic, the press reaction to his actions and his organization was equally the imposition of a logical image on a fear-created base. If, as seemed likely, a Fascist attack internally would coincide with military offensives abroad (the pattern in Europe), if fascism in America would come in thoroughly native attire, and if fascism was the alliance of seeming crackpots with powerful behind-the-scenes financial interests, then the 1942 Technocracy Inc. could be made to fit the prescription. Thus, Howard Scott was the Greenwich Village nobody suddenly elevated to the leaderhip of a well-endowed

organizaton, complete with uniforms and an antidemocratic ideology, which had appeared in full bloom just at the time of foreign crisis. All that was necessary was to locate the Fritz Thyssens.

In reality, of course, many of the elements were either exaggerated or nonexistent. It always seems difficult for those who have not personally experienced the motivations of living for a great cause to realize the kind of financial sacrifice such belief can entail; it is easier to believe in mysterious "interests" than in the individual's willingness to give "til it hurts" for something in which be believes. No money from either CHQ or outside the organization was forthcoming for either the newspaper ads, the local field magazines, or any other activity conducted by the local Sections. As an organization, Technocracy Inc. was self-supporting.[29] The lines of gray-painted automobiles seemed to bespeak the kind of wealth behind a "company fleet"—whereas in reality they represented the family cars of individual Technocrats, repainted in most cases by volunteer Technocrats in their spare time. Apparently overlooked by reporters in their survey of the "expensive" Technocracy Inc. literature was the fact that the union "bug" was missing from everything issued by the New York CHQ, except for three issues of *Technocracy* magazine in 1936–37.

Immediately after the initial reaction to its total conscription campaign, Technocracy Inc. modified its position in several important respects. The call for Scott as director-general of defense appears to have been dropped some time early in 1942, supposedly at the insistence of Canadian Technocrats.[30] At the end of March the oragnization stressed that the program "does not call for the installation of Technocracy or for the placing of this organization in any position of authority. It is impossible for anyone to accuse Technocracy of having political ambitions, or attempting to foist itself upon the nation under the guise of a wartime emergency." The stipulation in the *New York Times* ad calling for a duration-plus-six-months limit on total conscription

was to be emphasized in future publicity, as well as the opposition to the conscription of labor alone. The demand for equal allowances for all dependents regardless of rank or social position was also to be stressed.[31]

A month later, Technocracy Inc. was apparently still reacting to the criticisms of its campaign. Instructions to Sections and organizers now emphasized that total conscription was a wartime program designed solely for maximum technological and economic efficiency to create a national morale to "transform the entire war effort." Furthermore, total conscription must not be confused with Technocracy's "social program": "To state this even more clearly, it can be said that Technocracy has no program of social reformation until this war is won." And "of special interest" was a paragraph stating that the program was presented "so that the Commander in Chief of the United States—Franklin D. Roosevelt—will receive the unqualified support . . . of the nation." At the same time a technocratic analysis of fascism was stated: "Social operations in all fascist countries are based upon the production of physical wealth by human toil and hand tools, while social operations in America are based upon the production of physical wealth by technological processes."[32]

By October, 1942, when a pamphlet of questions and answers on total conscription was published (this was to be the basic document throughout the wartime period), the adaptation of Technocracy Inc.'s line to the war situation had been completed. Thus, total conscription did not mean a new social system; Technocracy Inc. would not be in charge of the program; Technocracy's record was cited at length as being anti-Fascist and in support of the war.[33] In July, 1942, Technocracy Inc. had been able to praise itself upon the government's conviction for sedition of organizations about which it had warned its membership in June of 1941. This was a vindication of Technocracy's analysis and of its own "All-American" program.[34]

During the war, Technocracy Inc. seemed to maintain its numbers and its morale by publicizing the total conscription program by means of public meetings, letter-writing campaigns,

leaflet distribution, appeals to labor unions, and billboard campaigns. At the same time, wartime prosperity enabled the physical facilities of the local Sections to expand. Many moved into larger offices. The removal of the Canadian ban in 1943 resulted in the revival of the *Technocracy Digest* as well as reinstitution of a number of Sections. The Vancouver Section, consolidated out of the several prior smaller ones, was said to be holding fifteen study classes.

By the end of 1943, Technocracy Inc. congratulated itself on its ability to weather the problem posed by the war and claimed increasing membership and activity. But hints of incipient decline were now officially evident: complaints of lagging magazine circulation; consolidation of Sections; a stress on the *"specific, personal, and positive duty"* of enrolling new members.

Nevertheless, Technocracy Inc. boasted that it had at last arrived as a major force in social change:

> Technocracy is now participating in social change. Technocracy's work is primarily educational. But during the past year this educational work has been pitched into a dynamic phase. Technocracy has become an active participant in the social conflict by urgently presenting a blueprint of national operations for United States and Canada, *here and now*. That blueprint is Total Conscription. By this means Technocracy has introduced a change in the basic strategy of this Organization, and during the past year the membership has put this strategy into full operation. Canadian members will be in a position to observe this change from the policy in 1940. *Technocracy has developed to the point where it can now execute nationwide tactical maneuvers in an organized and disciplined manner.* CHQ states unequivocally that this has forced a recognition of Technocracy as an organized factor in future events on this Continent![35] [Emphasis in the original.]

But far from becoming an "organized factor in future events," Technocracy Inc. would survive less than three postwar years before almost completely destroying its own organization.

IX. Treachery, Conspiracy, and Sabotage

Postwar Ideology

The Second World War marked, for Technocracy Inc., the inclusion of foreign policy considerations as central elements in its ideology. The postwar period, while witnessing a return to the former domestic program, saw the international emphasis continued. The role of the Soviet Union, and later of Communist China, in worldwide social change was increasingly stressed at the same time that the theme of a Roman Catholic conspiracy against change became more and more explicit in material produced for public consumption. An old minor theme, the decline of the British Empire, reappeared briefly in the immediate postwar years.

Technocracy Inc. was not alone in predicting major economic problems for the United States upon the cessation of war. But in understanding what happened to Technocracy Inc. as an organization, it is important to note that the immediate postwar period was again viewed as the time of final collapse: now, with the tremendous increase in productive technology, and the labor force swelled by returning veterans, the price system's day of reckoning must surely be at hand. Technocracy Inc. never again set a date for the predicted collapse, but the figure "18 months," related to various base points, was often mentioned among the membership. This seems to have originated in a prediction, repeated by Howard Scott in 1943, that:

> We could not run the technology of this Continent at continuous full-load operation for more than 18 months without running into a technological impasse. We are now approaching that impasse with less than 18 months of operation which has never been at full load.[1]

At that time, 1943, the domestic and international lines of technocratic ideology were beginning to converge in a picture of postwar crisis: a *fait accompli* would be presented by technology at home and Soviet Russia abroad. If Russia made a military breakthrough, she would become the dominant European military power, regaining lost territories and economically dominating the Balkans and Germany. Howard Scott pointed out that the new position of Russia would not be due to Communist ideology, but to "the area application of technology." Russia, the "Number Two Technological Potential of the World" would become a "technological 'continentalism,' the first in history." Only another "continentalism" could survive in the face of such power.[2]

The 1944 dissolution of the American Communist party was made the occasion for extended remarks by Technocracy Inc. to its own membership on both Communist theories and tactics and the application of technological determinism to the Soviet Union. The document is a relatively sophisticated recounting of the causes of the Russian Revolution, seizure of power by the Bolsheviks, and the role of the international Communist parties. The distinction is made between assumption of power and social change: the former does not automatically lead to the latter. The revolution might not have led to social change in Russia:

> Russia could have retained in succeeding years the entire philosophical doctrine of communism and remained a primitive agrarian economy. India and China could overthrow their present regimes and they would remain essentially as they are. In Russia, however, another factor was introduced—the development of an area technology. It is an important fact to note that it was not until 1932 that the Russians became sufficiently disentangled from their political preoccupation to really attend to their technology. It was not until 1934 that it began to get under way on any scale. Seventeen years! *Then social change began in Russia.*[3]

The other major thread of contemporary Technocracy Inc.

ideology became increasingly emphasized in 1944. In April, CHQ devoted five single-spaced pages to the analysis of a minor political party: the Bloc Populaire of Quebec. Its proposals are compared with the corporate state ideas of European fascism, and it is asserted to be an "outgrowth of the cultural background of Quebec." The point of the discussion is reached in the next to last paragraph, quoted in full:

> The Bloc Populaire in Quebec is the Canadian counterpart of the Catholic Centerist Parties of Europe. We must never forget that Heinrich Bruening and the Catholic Centerist Party dominated Republican Germany, and when the time came, the Catholic Centerist Party of Germany was voluntarily dissolved to make way for the German fascism of Hitler's National-Socialist Party.[4]

In the United States, too, dark forces were at work. A discussion of the 1944 political conventions noted that the rejection of Wallace as vice-presidential nominee marked the fact that the Democratic party had "gone reactionary." The influence of big-city machines and the composition of the party in terms of divergent racial, religious, and ethnic groups with labor support is cited. The implications of all this for Technocracy Inc. again became clear in the last few sentences of the release:

> The irony of all this is that Senator Truman, a stooge politician of the ex-Pendergast machine of Missouri, a mason [sic] and a baptist, was steam-rollered into the Vice Presidential nomination by the state machines. The leadership of these machines is almost solely Roman Catholic, and the delegates of these state machines are mostly Roman Catholic. The irony is that the Roman Catholic political machinery of the Democratic Party asserted its ascendency at Chicago over the entire party. The American counterpart of the European Front Populaire is here. The Front Populaire has taken over the Democratic Party of these United States and simultaneously Archbishop Spellman arrived in Rome.[5]

As the war in Europe came to a close, CHQ releases to the membership drew a picture of emerging postwar politics. Fascism was now perceived as an international conspiracy of "political, economic, and spiritual oligarchies" against social change. In Europe, although fascism had met military defeat, it would be revived in the form of an anti-Russian crusade. In otherwise often quite complex social and economic analyses, the master hand of the Vatican always appears. History was a conspiracy directed from Rome; and, in the postwar world, the United States must necessarily supply the Pope's divisions. Many pages were devoted to suspicious happenings on the European Continent; a quote from one such release conveys the general tenor:

> The students of history will probably note that the Allied invasion of Normandy occurred admittedly on schedule, but that the schedule began some days after the German evacuation of Rome and the Allied occupation of that City. Could there possibly be any connection?
>
> . . . It is a strange historical sequence that the Allied invasion of North Africa occurred only subsequent to Archbishop Spellman's return to the United States. The timing of historical events is always very interesting to those who are analyzing underlying causes. The Germans invaded Russia on June 22, 1941. Hess landed in England in May, 1941. The German invasion of Russia occurred after the Hessian tour. The Allied invasion of Italy occurred after the Spellman international tour. Of course, many people will remark "mere coincidence, dear Watson," but some international cynic has since referred to the situation in Italy as the "Spellmanization of the Hesscapade."[6]

Three policy statements for general consumption are central in Technocracy Inc.'s postwar international position: "The Vultures of the Peace," first published in *The Technocrat,* June, 1945, and reprinted in June, 1948, following an editorial proclaiming, "Prediction of Conspiracy Against Social Change Fulfilled!"; *Our Country, Right or Wrong,* released as a pamphlet

in October, 1946; and *Continentalism: the Mandate of Survival,* similarly released in June, 1947. All three items were signed only by Continental Headquarters.

"The Vultures of the Peace" is most explicit in defining fascism in terms of Roman Catholicism: the "vultures" are twenty-four Roman Catholic nations attending the San Francisco conference to set up the United Nations organization. Since they are a majority of the conferees, the conference is really a "smooth and well laid conspiracy" of its "fascist majority" against Soviet Russia. The conspiracy is aimed at inducing war between the United States and the U.S.S.R. In the Second World War there were "only two policies, Rome's and Moscow's," with everyone else allied to one or the other. Fascism itself "was created as a worldwide conspiracy by the international clerical hierarchy," first emerging in the Catholic areas of Italy, Bavaria, and the Rhineland. But fascism is only the most recent manifestation of a centuries-old struggle which began with actions of Pope Innocent III. It was no accident that Hitler called for the abrogation of the Treaty of Westphalia, "thereby fervently proclaiming the historical connection that we have delineated here." With "social change of a new order" introduced by the 1917 Bolshevik revolution, the clerical, aristocratic, and business interests had a new target. Continuing on to recount the history of the 1930's and 1940's, the article contains some perceptive social analysis again intertwined with the sinister plotting of Rome.[7]

In the 1946 pamphlet, *Our Country, Right or Wrong,* much the same historical ground is covered, with the emphasis now on the position of the United States in international affairs. The United States has created "a new axis—a Washington-Rome-London Axis," taking over Germany's leadership position in the anti-Communist, anti-Russian alignment. American foreign policy is never positive, it is a negative one of reacting against the "supposed policies" of Russia. Technocracy Inc. commented caustically that the press which was now exhorting the American people to save the world from Communism "never once" during

the Second World War called for a crusade to save the world from fascism. As for communism itself:

> Only that nation which cannot devise a better system than communism need fear communism. Technocracy looks upon communism as being too bourgeois and conservative for North America, but sufficiently radical and revolutionary for the Old World.

Continentalism: The Mandate of Survival combined historical, geopolitical, and ideological analyses. The dissociation of the old empires, the growth of nationalism and regionalism, and the tendency to statist or socialized economies the world over were cited as master trends, together with the polarization of the world between the United States and the Soviet Union. Internal and external American policies were linked: rather than face social change at home, the business interests and political parties of the United States and Canada are trying to involve their countries in a crusade against change abroad, so the world will be safe for business. This takes the form of the Truman foreign policy—a new *cordon sanitaire* around Soviet Russia. But, asks Technocracy Inc., if the powers of Europe failed to stop Russia both before and during the Second World War, can the United States undertake the task virtually single-handed?

Here, for the first time, the importance of ideological factors in social change is admitted and utilized by Technocracy Inc. in its analysis. Fascism failed because it could not furnish a new social and economic design. Wherever there is hunger and poverty, economic insecurity, and the "privilege of the few" maintained at the expense of the many, communism has fertile soil. It can be stopped only by "a more revolutionary social doctrine." The Truman policy proposes a flood of U.S. money, goods, and military aid but "not a single idea that can even begin to compete" with the promises of communism.

Foreign policy begins at home, Technocracy Inc. asserted. It continued by stating the determinants of such policy: the limitations imposed by geographical area, climate, resources, and

access to seaways; and the state of development of productive and distributive technology. Nations not well-favored in these categories must, of necessity, have conservative policies based on fear, fear of absorption by larger nations and fear of social change that would upset the lawful parceling out of scarce physical wealth. Only a "contiguous continentalism operated by a technological control" is capable of developing an economy of abundance for itself and "an exportable ideology of national welfare."

Two areas immediately possess the potential for such social development, North America and the Soviet Union. The Soviet Union has expanded in area (including the integration, economically, of Eastern Europe) to the limits of efficient operation. She has a "national will" to create a "social objective for the Russian way of life" and needs only a little more time, technology, and trained personnel. If the United States and Canada cannot generate a commensurate national will, then Russia will develop beyond North America.

Postwar Activities

Ideologically, Technocracy Inc. had adapted to the postwar concern with international affairs. Organizationally, the years 1946–48 marked an increase in tangible activities which seemed to indicate growing strength. The pages of *The Technocrat* had increasing numbers of photographs of new Section offices, increasing numbers of gray cars in various activities, and a general stress on symbolization. It was in this period that the campaign for the roadside Monad signs was undertaken; one was even planted atop Mount Whitney by two mountaineer Technocrats.

Motorcades of gray cars became a common symbolization tactic for groups of Sections across the country. The largest and most spectacular of these was "Operation Columbia," a 1,600-mile motorcade from Los Angeles to Vancouver, from June 26 to July 3, 1947. "Hundreds" of Technocrats in their gray cars. from Sections all over the continent, were said to have participated, and numerous photographs bear out the size of the group. The technical equipment involved was impressive and varied.

Featured was the MOU (Mobile Organizational Unit), an old city bus that had been skillfully converted to a semitrailer equipped with sleeping and office facilities, two-way radio and public address systems. Next was the Big Eye, a large war-surplus searchlight mounted with its generator on a Technocracy-gray truck. Trailers and trucks of various types, all painted the regulation color, were present, and many of the individual cars had loudspeakers mounted on the roofs. Technocracy motorcyclists escorted the parade while a gray airplane with Monads on its wings circled overhead. Literature was handed out en route, and Howard Scott and other speakers held meetings in the principal cities along the way. A full issue of *The* Technocrat was devoted to coverage of the event, and Technocracy Inc. photographers produced a 16mm sound and color film to be shown by Sections and organizers.[8]

The 3,200-mile trip with its hundreds of vehicles in a uniform color, "the largest non-military caravan ever organized," received little notice in the public press. Local newspapers covered the speeches in the major cities, but the motorcade itself received scant attention. It appears not to have been picked up by any of the national newsmagazines. *Time's* reply to an inquiry was photographically reproduced by *The Technocrat*:

> We were aware of the Technocracy Inc. motorcade from Southern California to Vancouver during the early summer. We did not report on it in TIME because we did not believe the event was particularly significant from a national viewpoint.

Noting that "reports of activities of other segments of America's population involving fewer people, less equipment and territory can be found in every issue of that news magazine," Technocracy Inc. concluded that it was once again being given the "silent treatment."[9]

The following year, in addition to dozens of smaller scale local efforts, two more large motorcades were organized: "Operation Golden Gate," in Central California for July 1–9; and "Operation Lake Erie," a circuit of the lake by Canadian and

American Technocrats over the weekend of September 4–6. The Golden Gate motorcade was to be the biggest of them all; 400 gray cars, 2,500 Technocrats, an additional MOU, and Big Eye participated. It won comment in the editorial columns of *The Nation*. The effect of the motorcades and other symbolization tactics on the general public is difficult to estimate. It seems at least as probable that, where noticed, the motorcades reinforced an exotic and sectarian image of Technocracy Inc. as that they provided a new means of arousing interest and curiosity. But it is certain that Operations Columbia, Golden Gate, and Lake Erie had internal consequences for the Technocracy Inc. organization which were most decidedly unintended and unforeseen by those who planned them. Before describing the sequence of events touched off by the motorcades, it is necessary to tell of one more incident which occurred in 1948 and is revealing for the light it casts on the nature of the local Technocracy Inc. organization and its own self-conception.

In the spring of 1948, flooded rivers brought disaster to parts of the Pacific Northwest. At one danger point, near New Westminster, British Columbia, volunteer Technocrats assembled nearly one hundred gray cars, using them as taxis for dike workers, Army, Red Cross, and other flood-control personnel. Some twenty-two cars equipped with public address systems aided in traffic control and were used as mobile announcers calling for volunteers to man the dikes. Technocrats from the United States as well as Canada arrived to help; at the request of the Canadian Army, a Big Eye and MOU were brought over from Seattle. The New Westminster Section Hall was kept open around the clock, serving as a mess hall and canteen and as sleeping space with blankets and cots provided by the Army. The Technocrats were later complimented on their work and spirit by the Army officer in charge, who, according to the Technocrats' reports, expressed surprise at the lack of newspaper acknowledgment of their efforts.[10] It was the social service aspect of the Technological Army in action, and this is the way it was viewed by the Technocrats themselves:

> This kind of organization, operating efficiently without pay or reward of any kind under no duress except the threat of disaster before them is something new. . . . It symbolizes a design of complete over-all social operations . . . for the benefit of all the people.

Never before had there been a "Continental stand-by organization" like this; volunteer fire departments were the closest analogy.[11]

The Split

The morale and activities of local Technocracy Inc. Sections were apparently at a high point in early 1948. But within the organization a revolution was brewing, a movement within a movement—CHQ preferred the term "conspiracy"—which would split the membership as either the cause or expression of a precipitous decline. It seems plausible, both from the testimony of former Technocrats and from the general characteristics of Technocracy Inc.'s structure and ideology, to guess that by 1948 the organization had become a hollow shell, ready to collapse or wither away to a hard core of the faithful. The basic factor was probably the relationship of the ideology to external reality; the expected demise of the price system simply had not come. After the total conscription program was dropped, there was no immediate set of goals or program for which Technocrats could agitate or organize. To outsiders, the economic premises must not have seemed so compelling as in the 1930's. The elaborate symbolization and organizational activity must have seemed somewhat aimless at times even to Technocrats themselves. Instead of marshaling the forces of order and reason against impending chaos, they were now "educating" for the distant utopia to arrive if and when a sufficient number of North Americans desired it.

Despite the loss of membership and declining magazine circulation, it is conceivable that Technocracy Inc. could have tightened its ranks, recognized a period of tactical retreat, and

awaited ultimate historical vindication. Had the carefully nurtured picture of Continental Headquarters and its operations been maintained, this is probably what would have happened. (This is the outlook of active Technocrats today.) Evidence has been presented of the aura of mystery built up about Scott and his associates at CHQ: the anonymity of the personnel and proceedings, the releases always hinting at more than was explicitly stated, the feeling of high command strategy which could not be grasped in its everyday tactical manifestations, the "inside track on history" feeling promoted by the constant stress on the fulfillment of Technocracy's predictions. The feeling of strength greater than appeared on the surface was calculatedly extended to the organization as a whole: membership figures and complete Section directories were never issued; all figures on literature distribution and membership recruitment were percentages with no base figure given. Except for limited arrangements for speakers' tours, there was no regional or national organization of Sections as units; all the Sections and members "somewhere out there" became vast in their very indeterminacy. The feeling of hidden power was reinforced by the repeated implication that the public press suppressed news of Technocracy Inc. out of fear of it.

Unfortunately for Technocracy, its ideology also stressed two other points: scientific skepticism, and the idea of "functional control," that is, the most competent personnel for the jobs involved. Over the years, a number of individual Technocrats had had doubts about the "functionality"—or just plain competence —of Howard Scott, sometimes because of visits to CHQ, sometimes because of his speeches and writings. But in most cases, such doubts were suppressed or rationalized in the interests of the theory and the vision or because it seemed that in any movement the masses always needed a great leader to lionize.

The events of 1947 and 1948 provided two sources for the final breakthrough. First, there seemed evidence for a mounting feeling that something was wrong at CHQ; the cessation of the monthly mimeographed general mailings at the end of 1944 (only three had appeared between April, 1945, and March,

1947), delays and disregard of correspondence, and negative responses to all suggestions for ways of combating the decline in membership are cited most often by the dissident Technocrats. Second, there was the activating effect of the three motorcades. Many members were brought into direct observation of their Chief for the first time in many years, and he now seemed somehow "different." He seemed to be "nervous," "afraid of something," "unwilling to participate" in Section conferences, avoiding publicity for himself and the organization, and lacking in the elementary coordinating sense necessary for the leader of a large organization.[12] More important, the large motorcades of 1947 and 1948 brought together Technocrats from all over the continent and enabled them to express their doubts and misgivings to one another. Lonely dissidents full of self-doubt suddenly found unexpected social support. The feeling of relief at getting doubts and individual observations out into the open, in an organized expression, was later dramatically voiced by a former member of the New York Section, writing to the dissident faction:

> I wonder if you realize what the Conference Program and action means to many like myself, who don't really live unless they can work for Technocracy, but who have seen operation high in the Organization which was nowhere up to the Body of Thought, but couldn't do a damned thing about it. As individuals, no one could. It will be a bitter fight, and from Scott's tactics so far, it will be damned dirty, and it will be of the utmost seriousness. But, by God, it will settle a lot of things.[13]

Crystallization and organization of discontent took place rapidly from the middle of 1948. On July 11, five members met in Buffalo, New York, to discuss the decline of Technocracy Inc. and propose a solution. The CHQ Assistant Director of Organization, A. W. Atwater, was present along with R. B. Langan, editor of the *Great Lakes Technocrat;* Charles G. Norris, director of the Toronto Section; Oscar Floyd, director of the Chicago Section; and Ralph Herring, director of the

Detroit Section. The tactic decided upon was quietly to enlist sufficient support for the draft program so that it could be presented to CHQ, which, after adopting it, would issue it to the entire membership as a policy statement. West Coast members were approached to gain support in their areas, and a central clearinghouse was set up in Chicago. About a hundred support letters were sent in to the Chicago office. As a result, a second conference was held in Chicago on September 11, at which a program for "The Expansion of Technocracy" was drawn up and signed by twenty-five participants. (The fact that A. W. Atwater of CHQ was not a signer, although he had been a participant in the dissident group, was later made much of in loyalist charges of conspiracy.) Five delegates (Langan and Norris, plus one member each from Los Angeles, Seattle, and Winnipeg) were chosen to take the program to Howard Scott in New York.

The signed program, with a proposed release from CHQ to the membership, was presented to Scott by the delegation of five on the afternoon of September 15. The confrontation was dramatic. While the proposed program would have retained Howard Scott as director-in-chief, it clearly would have limited his power in the organization. A favorite phrase of Howard Scott was *fait accompli;* he was now faced with one. The choices open to him were to acquiesce to a force of unknown strength and be "kicked upstairs," or to fight. Scott chose to fight, and he won. The delegation of five later reported that Howard Scott had been evasive, refusing to discuss the proposed program or to answer questions, insisting instead on knowing who had financed the "conspiracy." A second session from after dinner until near midnight ended inconclusively. An agreement was made for further discussions the next day. Letters were sent to the CHQ office staff inviting them to attend a dinner with Scott and the five delegates before the proposed evening conference. After a scuffle over the letters, Scott dismissed Atwater and an office secretary from membership. When the five dissidents arrived, Scott, from behind the locked doors of his personal office, informed them: "Gentlemen, there'll be no conference."

Recalling the scene over ten years later, Langan pictures Scott

pacing behind the locked doors, repeatedly mopping his hands and face with his handkerchief. But when Langan challenged him ("What's the matter with you, Scott, are you crazy?") one of the other four, shocked, touched Langan on the shoulder, saying, "You can't talk to the Chief like that!" "We should have exercised our legal rights and 'sat in' the office," Langan reminisces today, "that's what I wanted to do but the others wouldn't go along." With only limited personal funds, far from home and unable to remain long in New York, the delegates meekly left.

By telegram to their home Sections, Howard Scott expelled the twenty-five signers of the proposed program; the five dissident delegates wrote a letter to Scott informing him that although they had intended the program to be quietly instituted by CHQ, they were now compelled to seek mass support among the membership to secure its adoption. On September 28, issued only under the signature of CHQ, a "Preliminary Report of Treachery, Conspiracy, and Sabotage" was sent to the homes of all Technocracy Inc. members. Arguing that the twenty-five signers represented no one but themselves, and asserting that the five delegates had behaved in a discourteous and demanding way, the "secret and surreptitious" nature of the "conspiracy" was stressed—a conspiracy with the object of wrecking Technocracy Inc.

> Regardless of the motivation of those involved in this conspiracy, there can be only one chief instigating motive behind it all—the disruption and destruction of Technocracy Inc. . . .
>
> Those conspirators abrogated their contract of Membership in Technocracy Inc. when they circulated false rumors, when they conducted secret and surreptitious correspondence and when they held secret meetings. Their claim that they wished to promote and expand Technocracy Inc. is a sheer tissue of lies; for, if one of their proposals alone were instituted; namely, the annual election of the Continental Board of Governors from the Membership, it would create a continuous political struggle for power within the orga-

> nization. Outside individuals could subsidize and back any number of individuals in the annual elections for Continental Governors. . . .
>
> CHQ must of necessity originate the policy and control the strategy of the Organization in its entirety. The Technocrats in the Field, Members and Officers, are responsible for the tactical execution of that strategy. . . .

It was asserted that "the work of this Organization has been hampered and hamstrung for over two years by the growing cancer of this conspiracy" but that after waiting for the "plot to ripen and rupture . . . CHQ's forthright action has already removed the treachery and deadwood from CHQ and from most of the Field."

Typically, the concluding paragraph hints darkly that the conspiracy is only part of a more extensive plot:

> Every Technocrat is asked by CHQ to view this conspiracy with a new significance, because of the timing of its perpetration in relation to national and world events. These conspirators did not congregate by accident or happenstance—the timing is far too pat! CHQ asks the Membership of Technocracy Inc. to close its ranks and clean house, for there is no room in Technocracy for traitors.

What was the program that had so roused the ire of Howard Scott, and which the dissident Technocrats were so determined to see enacted? Essentially, it called for a "functional administrative structure" like that of the Sections to be set up at CHQ. The heart of the matter was the election, at annual meetings as required by law, of continental directors responsible to the membership. This board must not make decisions unless a majority of its members were present, and minutes must be kept of its proceedings. Financial reports must be prepared and issued. The first annual meeting must be called by November 15, 1948. In the interim, the five delegates demanded that the books of the organization be opened to them, and the names, occupations, and decisions of the present continental directors be made

known to them. If such directors were currently fewer than the five provided for by the certificate of incorporation, the number was to be increased to five by appointment of directors acceptable to the Chicago Conference representatives, who would hold office until confirmed or replaced at the first annual membership meeting. It was also urged that full-time CHQ field representatives be sent out on a salaried basis, that the monthly mailings from CHQ be resumed, and that immediate steps be taken to resolve border-crossing difficulties. (For several years Canadian Technocrats had difficulty entering the United States because Technocracy Inc. was alleged to advocate the overthrow of the government by force. The dissidents asserted that CHQ had done nothing about the matter.)

This was the original program as presented first to Howard Scott and then to the membership at large. Begun as a dispute over expanding and revitalizing Technocracy Inc., the struggle was quickly recognized on both sides for what it was: Howard Scott and his supporters versus those members who had accumulated objections against Scott and his direction of the organization. In the months of confusion that ensued, the dissident Technocrats failed to obtain majority support although they did obtain a court decision invalidating the first few expulsions.

Tactically, the dissidents made several mistakes. After an initial advantage accruing from the almost hysterical tone of the CHQ release of September 28, the dissident Technocrats, perhaps in frustration, and in contradiction to their own published instructions, allowed their polemics to descend to extremely crude levels of personal and supposedly satirical vituperation. (The loyalists were not lacking in imagination either. Langan recounts that when he spoke at one Section, outlining the Chicago Conference Program, the Section director recorded the talk, informing Langan he would "be tried for treason in the Technate.") In many places, support lined up on the basis of personal friendships and cliques. And, particularly in the crucial West Coast areas, some of the dissidents' representatives had been known as "screwballs" and troublemakers. Here the peculiar geographical distribution of Technocracy Inc.'s mem-

bership may have been decisive; one reason given for the Chicago Conference Program's lack of support on the West Coast was that relatively few western members had been to CHQ to see the nature of its operations. This, together with quick action on the party of loyalist Section officers, largely prevented the dissident program and evidence from being effectively presented on the West Coast.

Ultimately, however, the total image of Howard Scott, the mysterious workings of CHQ, and the body of thought of Technocracy were probably too tightly tied together in one psychological structure for most Technocrats. To threaten part was to threaten the whole. (The subsequent experiences of the dissidents seem to confirm this.) The myth prevailed—the myth, after all, around which many of the approximately eight thousand Technocrats remaining in 1948 had organized perhaps ten years or more of their lives. Trusting faith in the absence of knowledge is nowhere better illustrated than in a loyalist letter widely circulated in 1948 (the writer is discussing points of the dissidents' program):

> *Continental Board of Governors*—It is necessary for such a Board to contain some very *eminent* people in their *functional* fields, for strategic as well as practical reasons. However, the last time there was publicity on Technocracy's leading members (in 1933) we lost a flock of them because the heat was turned on by business interests. So, for the present, they should be anonymous, which is OK with me. And if on the other hand we are short of eminent functionals as yet [the Chicago delegates' presence would not enhance prestige.]

Running out of funds for further legal action, and failing to gain majority support necessary to prevent the program from being defeated in an annual meeting, the dissidents took the only course left to them. They called a "Last Meeting of the Chicago Conference" in March, 1949, to set up another organization. At its height, the Chicago Conference for the Expansion of Technocracy had claimed the receipt of 2,000 support

letters; thus it may have had the expressed support of about one-fourth of the membership. An undetermined number of Technocrats quietly dropped out of the organization, disgusted by the actions of loyalists and dissidents alike. Judging from the initial membership of the new organization (600) and indications of Technocracy Inc.'s continued decline, their number was not inconsiderable.[14]

Technocratic Organizations, 1949–65

With the revolting faction of 1948 isolated from the body of the organization, the Technological Army closed ranks behind Howard Scott for a mopping-up operation. Early in 1949 members in "doubtful" areas were sent a loyalty statement to be signed and returned to CHQ; in addition to reaffirming "unqualified support for Technocracy Inc., its Continental Headquarters, its Continental Board of Governors, and its Director in Chief, Howard Scott," the membership was asked to "denounce the 'Chicago Conference Program' as a subversive conspiracy against Technocracy Inc."[15]

During 1949 Technocracy Inc.'s three remaining field magazines (the *Great Lakes Technocrat* had gone out with R. B. Langan, its editor) continued to portray activities much as before the schism. But evidence that the struggle had cut deeply into the ranks was soon forcefully evident. In March of 1950, the three magazines went from monthly to quarterly publication. The five weekly West Coast Technocracy Inc. radio programs had been reduced to one. Some time later, requirements for Section charters were raised to fifty members, and dues to nine dollars per year. By 1951 CHQ had given up its New York skyscraper offices on East 44th Street and moved to Lambertville, New Jersey. Later the headquarters was moved again, to a Bucks County farm outside Philadelphia. It has issued no new pamphlets since the late 1940's.

Technocracy Inc. in 1965 still published its three West Coast magazines, the *Technocrat* in Los Angeles, the *Northwest Technocrat* in Seattle, and the *Technocracy Digest* in Vancouver, all on a quarterly basis. Reports in the magazines of organization

activities are brief, dealing with isolated events rather than the flurry of action evident in the 1940's. In certain of its traditional stronghold areas, however, a modest increase in strength may have occurred recently. Photographs and write-ups of commodious new Section headquarters in Los Angeles and Colton, California, and in Cleveland, Ohio, appeared in 1959 and 1960. The Colton headquarters building was designed and built by Technocrats in the area.[16] In a 1962 newspaper interview, Howard Scott mentioned Sections in Seattle, Akron, Milwaukee, Chicago, Detroit, and Minneapolis.[17]

In ideology, Technocracy Inc., in the 1960's stresses its basic program and themes and has continued to adapt its policies to changing world events. As always, criticisms of price system inefficiency and waste are found in the pages of its press, together with exposition of the Technate's social design as mandatory for a society based on technology and abundance. Current concern for the dislocations produced by automation fits in, of course, with Technocracy Inc.'s analysis; this is the economic problem it has always found central. Internationally, attention has been turned to the nationalism and social change taking place in Asia and Africa. Taking into account the factors of population, resources, and technology, and positing the need for national planning and economic allocation for the general welfare rather than for a favored elite, Technocracy Inc. increasingly and repeatedly points to China as a model of what can be done in underdeveloped areas. (Certain reservations are expressed, however, about some of the governmental forms, procedures, and ideology.) Recognizing the seriousness of the world population explosion, Technocracy Inc. advocates planned population control, in North America as well as the rest of the world. According to Technocracy Inc., North America has already exceeded the optimum population by sixty million. A population program for this continent should first seek to reduce numbers, then improve quality. Immigration should cease "except for a very limited number of biologically superior individuals, admitted by specific invitation" and emigration be encouraged, "particularly among those elements which are biologically in-

ferior and whose backgrounds, culture, and interests are incompatible with the social goals of this Continent."[18]

Technocracy Inc.'s handling of the civil rights crisis might have been predicted: slight attention to the issue as such, an attempt to subordinate problems of discrimination to economic difficulties, with a veiled nativist overlay. Thus a 1963 West Coast article stated that "bellicose elements" among integrationists were engaging in "violence and near violence," but conditions were not now favorable for a minority "to force its will upon the majority" by aggressive action. Opportunistic northern politicians would scramble to support civil rights, but Negroes would learn that economic limitations were more important than skin color. Anyway, "there is a rumor that Bobby Kennedy is not really sincere about his support of integration—he has eight (or is it nine, now?) children and not one of them is colored."[19]

Extreme anti-Roman Catholicism, in the form of identifying Catholicism with fascism and in viewing recent history as a conspiracy directed by the Vatican, persists as a strong theme. While the only direct comment on John Kennedy's political candidacy was relatively mild, Technocracy Inc. asserted that "no matter who wins the election, a fascistic figurehead is in position to pull the trigger on World War III."[20] At least one variation on the theme is hilarious in retrospect: in March, 1959, Fidel Castro was called a Fascist reactionary because he had "the open support of the Roman Catholic Church and most American reactionaries." One year later, March, 1960, events in Cuba could still be called "not a revolution . . . if anything, a step backwards."[21] In an article dealing with freedom of the press, the Roman Catholic hierarchy is depicted as "the most conspicuous" example of unofficial interference with the press; this is heightened by official postal interference, "usually where the local post office is Catholic dominated, which is too often the case."[22] When Russian Deputy Premier Anastas Mikoyan visited the United States, "foreign refugee elements were 'permitted' to harass him with openly violent attacks in those cities whose police departments are Catholic dominated."[23] (Lest Roman Catholics feel unduly abused, Technocracy Inc. hastens

to assure them that there are other forms of "fascism" too: "Roman Catholic, Orthodox Catholic, Moslem, Judaic, Protestant, Buddhist, Hindu . . . At the moment the most flagrant fascism in the world is the Roman Catholic fascism, and next in line is the Mohammedan fascism.")[24]

In its interpretation of the Vatican-inspired, United States supplied plot against the Soviet Union, Technocracy Inc.'s definition of reality sometimes approaches that promulgated by Russia. Thus, the Hungarian Revolution was part of a gigantic State Department plot which was to involve Poland, Czechoslovakia, and East Germany as well:

> As a pre-election gimmick in 1956, the start of a civil war in East Europe to be followed by American and allied intervention was quickly decided upon (although preparation had been underway for years). . . . The fascist "revolt" in Hungary was quickly smothered by Hungarian and Russian forces.[25]

Technocracy Inc., like many other groups and citizens, is concerned over the possibility of nuclear war and of what it considers American provocations that could lead to war. It wants to see the cold war abolished and has proposed a series of steps toward that end: withdrawal from Berlin, Taiwan, and the coastal waters of China and from bases outside an immediate defense area; recognition of China and her admission to the United Nations; cessation of the Voice of America and Radio Free Europe; and "negotiations with Russia and China of a permanent peace in the world." Characteristically, the first point in this program was: "Get the 'dead albatross' of the Vatican off our neck."[26]

Such are the ways in which Technocracy Inc., in the early 1960's, perceived the continent and the world around it. "Twice within recent decades, the American people have been ready for revolutionary change," it asserts, in the winter of 1932 and immediately after Pearl Harbor. Next time, "The reactionaries and conservatives will have played their last trick; the liberals will still be without a program." The people will be ready for a

mass movement; but participants in a movement "are not governed by intelligence and understanding; they are impelled by desperation and excitement to take action and gain quick results." There will be no time to create a new program. One will be followed which is already available, technocracy.[27]

The fate of the dissident Technocrats who had rallied behind the 1948 Chicago Conference Program must have delighted the loyal supporters of Howard Scott. Starting out with great hopes under a new name, with plans for revising theory and ideology, the new organization soon ran into difficulties which caused almost complete disintegration in little more than a year or two. Without the organizational discipline or the sustaining myths imposed by Technocracy Inc., the membership seemed to gallop wildly off in all directions at once. Splits, expulsions, and resignations mounted; the successor organizations rapidly ran out of money, members, and enthusiasm. (Three main branches were in operation for a time: the rapidly diminishing original group, headed by R. B. Langan; a substantial segment which joined the American Rally, an organization set up by two former Trotskyists in an attempt to form a new peace party of midwestern isolationists and populists behind the candidacy of Brigadier General Herbert Holdridge; and a loosely organized series of councils presided over by a West Coast vegetarian who predicts wars from earth tremors.) Out from under the unity of outlook imposed by the study course emerged a strange variety of special causes, insistently urged as crucial for the new organization: pantheism, greenbackism and honest money, anti-Semitism, vegetarianism, exotic medical theories. "We used to boast that we pulled out all the top functional members," Langan later remarked, "but we got all the screwballs too."

After the infighting among the dissidents cooled, Langan, at the head of a small group which he finally called "Technodemocracy," began the job of revising technocratic ideology. Emphasis was on the design of a more democratic social order than that projected by Technocracy Inc., taking into account cultural and institutional as well as technological factors. From 1953 through 1958 parts of the scheme were published in

mimeographed form; although revised, it has not yet been published as a book. In addition to the concern with democratic institutions and safeguards, Langan's picture of a democratic-technological social system stresses extrapolation from existing institutions, concepts, and terminology; his economics resembles that of the old Continental Committee more than the ideas of Technocracy Inc. Thus, only economic functions susceptible to mass production would be socialized, and "there is no need for any strange, new system of money." National economic accounting could be set up on the basis of any or all of three currently used systems: "the National Income and Product System now official throughout the Government; the Flow of Funds System being developed by the Federal Reserve System; the Input-Output physical accounting system recently developed at Harvard University." But the "store of value" function of money would be eliminated; it would be used essentially for accounting purposes in a manner similar to the Continental Committee's proposals and to the basic ideas behind Technocracy Inc.'s energy certificates.

Social, economic, and political details for the new society have been elaborately worked out by Langan. Government would consist of two branches (in addition to the judiciary): the Industrial Congress, and the Civil Senate, with the latter the superior body. Selection-election on a functional basis staffs the former; the latter's senators are elected from candidates who have reached industrial retirement age. No political parties are necessary or feasible. Representation in the Civil Senate is on the basis of a dozen ecological/geographical areas, which could be called states if so desired.

Organized labor is important as a democratic safeguard in this highly organized and socialized society. Labor unions remain as independent institutions with the right to strike, although industrial courts will be set up for handling labor-management disputes. In addition to labor unions, there is a "plant community" which has elected officers from all levels of its organization. Organized labor also operates a National Employment Authority.

Free and compulsory education and health care are included as in other technocratic plans. All of the ingeniously worked-out details of Langan's blueprinted society cannot be touched upon here, but some of the differences with other projected technocratic societies have been pointed out.

A detailed transition program has also been devised, parts of which are again similar to some ideas of the Continental Committee. Langan stresses the idea that, just as the original Constitutional Convention set out to deliberately and rationally design a government, it can be done again, covering industrial and economic organization as well.[28]

Langan identifies his work with the mainstream of the Western democratic socialist tradition, maintaining that this tradition has produced negligible results to date because of a refusal to be concerned with laying out the way a democratic socialist society would operate and because of involvement in party political action. (The Soviet Union's system is seen as a form of state capitalism rather than socialism.)[29] Finally, concern with immediate issues, as well as with long-range goals, has been a characteristic of this "democratic technocracy" group.

Technodemocracy as an organization has had a handful of "subscriber-members" scattered across the continent, mostly a few loyal remnants of the group drawn out of Technocracy Inc. in 1948. Langan's research and writing of his social design, the irregular publication of a mimeographed journal, the *New Analyst,* and issuance of leaflets and pamphlets have been the group's activity. But an organizational structure, bylaws, and incorporation have been accomplished in the event that popular interest should materialize at some future date.

X. In the Dustbin of History

The remnants of the organized technocratic movement have faded into obscurity, isolation, and irrelevance; ironically, the word itself in becoming a part of the language has been detached from the movement. "Technocracy," and especially the noun "technocrat" are found in dictionaries, encyclopedias, and often in scholarly and journalistic analyses of contemporary events. However, the referent in almost all instances of current commentary, and sometimes in dictionary usage as well, is not to the specific movement or ideas discussed in this book, but to a general concept of social planners and technicians. Thus, in contrast to the Communist party and military elites in the Soviet Union, a third faction of industrial managers and planners is often referred to as "the technocrats." There is little evidence that technocracy as a specific ideology and movement exists to any extent as a perceived economic and social alternative in American culture. There is no individual or organizational voice of dissent recognized as technocratic by either the intellectual or middlebrow media or publics, in the way that, for example, Norman Thomas is regarded as the spokesman for democratic socialism. The theories and plans of technocracy are not found today in compendia or texts on alternatives to capitalism or discussions of social change and evolution; even as a movement, technocracy has received no more than passing mention in the works of sociologists and historians.

In considering the failure of technocracy, three things must be accounted for: (1) failure to attain the goals of the movement; (2) failure to become established as a significant element in the culture of dissent; while (3) maintaining an organized structure over a period of more than thirty years.

The reforms and the imagination of the Roosevelt New Deal,

coupled with insufficiently eroded loyalty to the basic institutional structure, prevented the success of a movement demanding such drastic changes as technocracy. Support for this notion is gained by examining the fate of technocracy's competitors. In the elections of 1932, the Socialist party was able to poll only about 885,000 votes in comparison to Franklin Roosevelt's 22,800,000, and the Communists did even worse, with only slightly more than 100,000.[1] Whatever the relationship between electoral action and social change, these figures do not seem to reflect a basic dissatisfaction with the political structure. By 1936, a period when Technocracy Inc. was seriously organizing and even the leaders of the disintegrating Continental Committee felt there might still be hope, the New Deal, despite some falterings and a still unsolved Depression, was able to rally more rather than less support on the left. The Socialist party split over the issue of supporting Roosevelt, with some of the numerically and politically stronger elements taking a pro-Roosevelt position. As for the Communists, the Seventh Comintern Congress in 1935 had enabled them to break out of almost complete isolation by means of the "Popular Front" change in line. With this tactic, under the slogan "Communism is Twentieth Century Americanism," the party was able to increase its membership rapidly and gain entrance to labor unions and other areas of American life. While not explicitly supporting Roosevelt in 1936, the general line was not virulently anti-New Deal as it had been in the early 1930's.[2]

It may be objected that a conclusion based on what happened to the Socialists and Communists is irrelevant, that their publics were not oriented in distinctly "American" political and economic frames of reference, or that their relation to the New Deal was determined as much by the rise of European fascism as by domestic problems. But evidence is available on the fate of native American, non-Marxist protest movements in the 1930's. By the time of the 1936 election campaign, a precarious national Union party had been assembled from the followers of Dr. Francis Townsend, Gerald L. K. Smith, Father Charles E. Coughlin, and a few midwestern progressives. Although an in-

herently unstable coalition, it seemed to unite and focus for the moment the tradition of Populist protest. Reckoned to be at least an important factor in the election, the party had begun to disintegrate before election day. In this instance, however, internal factors seemed to be as strong as the external influence of the New Deal.

One other case may be more relevant, that of the American Commonwealth Federation. A small group of non-Marxist radicals and progressives with some political experience and power, centering around the magazine *Common Sense,* had been determined to build a third party which could attack in a bolder way the economic problems that it felt the New Deal was not solving. But faced with the task of translating hopes and rhetoric into action, the group concluded that the job was impossible; Roosevelt still had the support of those groups that must be the basis of a third party. Harold Loeb, writing a decade after his experiences in both the Continental Committee on Technocracy and the American Commonwealth Federation, felt that discontent, if it could have been crystallized, might have resulted in a native Fascist movement. He, too, credits the New Deal with forestalling such crystallization.[3]

On balance, it would appear that the New Deal was able to represent, on the one hand, a minimum consensus of the discontented and, on the other, a surviving consensus of loyalty to the basic institutions of the electoral and representative system together with privately owned economic enterprise operating with a minimum of over-all national planning of production and distribution. This argument rests, of course, on several assumptions: (1) that there is a valid correlation between electoral behavior and real feelings of both loyalty and discontent; (2) that the failures cited do in fact primarily reflect lack of support rather than being an artifact of the formal political party structure, including the "lesser evil" perceptions built into any two-party situation; and (3) the inevitable touch of circular reasoning in historical argument: "since there was not, therefore there could not have been."

The alternate argument, which has been made by some ob-

servers of the events of 1932–33, is that technocracy lost a unique opportunity for change because of the operation of internal factors. The combination of the severe Depression, the gap between administrations, the background of interest in science and technology, the materialist approach devoid of European or Marxist terminology and appeals, and the incredible outburst of publicity gave to technocracy a chance so qualitatively different that comparison with competing groups is, in fact, irrelevant. A definitive resolution of the two positions is probably empirically impossible. However, detailed exploration of the argument that internal blunders lost technocracy's chance may, as a by-product, provide information on the second and third questions: why technocracy failed to become a part of the culture of dissent, yet maintained organizational continuity.

Stages of a Social Movement: Internal Factors

The life-cycle or natural history of a social movement is usually seen as involving four very broad phases. Each phase is thought to involve preconditions of the next one, if the movement is to be successful. There is an initial stage of social unrest, milling, and searching for collective solutions to felt problems on the part of the potential public of the movement, while at the same time the nucleus of the movement is gathering its personnel and ideology. This stage is followed by a period of attention and agitation during which the proposals of the movement become widely known and debated and the movement, its rivals, and the forces of the status quo vie for power and public approval. In the third phase, the following that has been attracted is organized so that further agitation and steps toward the attainment of the movement's goals can be carried out. Finally, the movement as a social unit may be incorporated into the society's institutional structure; its goals may be achieved through social mechanisms other than the movement itself; the movement may not attain its goals or be incorporated into the society's institutions, but may continue to exist on the basis of social solidarity established in the struggle; or it may, as a structured group, dissolve altogether. It is generally felt that different

types of leadership, tactics, ideological or propaganda emphasis, and other "internal" factors may be requisite to the completion of any given stage.[4]

The social unrest generated by the three years of economic depression prior to 1932 is well known (although, again, the extent of detachment from institutional loyalties that resulted is a key, but necessarily open, question). The early incubation period of the technocratic movement led to the great period of public discussion during the winter of 1932/33. Technocracy was unable, as a movement, to capitalize on this stage of agitation and discussion. The balance of attention turned against the movement and then declined precipitously, nearly to the vanishing point. Extremely tight time limitations were imposed upon the movement's opportunity, both by the short period available between the initial outburst of publicity and the inauguration of the new political administration and by the rapid diffusion of attention through the mass media. The small, informally organized research group and the hastily improvised Continental Committee on Technocracy proved unable to maintain the initiative in agitation and discussion. Tactically and ideologically, the group was fatally stalled by the inability to spell out concrete proposals or demands. Neither at this point nor later did most technocrats face the crucial question of how to obtain power. Internal bickering, which led to public divisions, reinforced the inability to act with the necessary speed in the necessary directions. The agitational leadership did seem to be admirably filled by the mysterious, voluble Howard Scott. But even here, time moved too rapidly, for several observers have commented that Scott, accustomed to rambling discussions over coffee, or with informal groups of reporters, was unprepared for the public figure role into which he was suddenly thrust. The disappointing delivery of the Hotel Pierre speech, in contrast to the polished, if demagogic, platform appearance Scott maintained later in the 1930's, and his apparent confusion over tactics and ends are cited as evidence.

Given rout and ridicule in the public forum, the open division into quarreling factions, and the shift of attention to the "Hun-

dred Days" of the New Deal, it is perhaps remarkable that technocracy survived at all. In part such survival may be attributed to the truly phenomenal extent of the mass attention phase—one of the participants, in public relations all his life, including important posts in several national political campaigns, has said that never in his previous or subsequent experience had he seen such an outburst and response. Both the Howard Scott and Continental Committee factions were determined to "pick up the pieces" after the apparent reversals of early 1933. The problem is to determine why they were not more successful. Having missed one opportunity, the movement could, in theory, begin the cycle again.

Comparison of the two wings of the movement, Technocracy Inc. and the Continental Committee on Technocracy, is useful at this point. The failure of the Continental Committee to move from the agitational or public discussion phase into the organizational stage has been documented. After a seemingly auspicious beginning in consolidating many of the groups that arose after the initial publicity, this wing of the movement was never able to maintain an organized following of significant dimensions anywhere except in the state of Washington. Special factors of timing and of the availability and experience of leadership personnel may have contributed to the phenomenal Washington organization, which at its height may have enlisted as many members in one state as Technocracy Inc. was later able to enroll across the continent. But this success lasted little more than a year. Even with the help of a speaker-organizer from the Washington branch, the CCT as a national organization could not approach that branch's performance anywhere else in the country.

Leadership, tactics, organizational structure, and ideology all seem to have been deficient. As platform speakers and writers, the two national leaders of the organization, Harold Loeb and Felix Frazer, performed well, although even here they may have suffered by not having been members of the "original" Technocracy group around Scott at Columbia; their talents did not seem to lie in organizational work—but then, apparently neither

did Howard Scott's. The year-long absorption of Loeb, Frazer, and others of the New York group in the National Survey of Potential Product Capacity may have lost them precious organizing initiative; when they returned to the field in 1935, the initial publicity was three years old (and they had dissociated themselves from it) and similar mass enthusiasm for their own careful study could not be generated. Until about the same time, 1935, even routine office procedures in the New York headquarters appear to have ranged from fitful to chaotic, and there was almost no guidance or regulation of the distant local units.

Like that of Technocracy Inc., the CCT's ideology was at first crisis-oriented: it had its Plan of Plenty to be put into operation to avoid total economic collapse and to restore full production with abundant distribution. But this program was not backed up by the kind of theory or philosophy of social change or social evolution which was made fairly explicit by Technocracy Inc. in its study course text. Thus, when the perceived urgency of the economic situation lessened somewhat (and differences in the two organizations' followings are important here) the whole *raison d'être* of the Continental Committee was weakened. Tactically, the vacillation about political action, both by the national leadership, which flirted with Washington, D.C., at the time of the survey and after, and by the strongest local groups, in California and the state of Washington, added to the internal dissension and the air of indecisiveness about the whole organization.

The membership recruited by the Continental Committee was predominately composed of professionals and other middle-class people. Many of them had been active in liberal or radical political causes. Take the fact that the Continental Committee's ideology did not distinctly elaborate or demarcate itself, add the uncertainty about what adherents of the organization should actually do for the cause, include a practically nonexistent organizational framework, and it is apparent why members left the CCT to return to prior liberal and political interests. In light of the initial success in tying together the spontaneous technocratic groups, the recurring defections to the Continental Com-

mittee from Technocracy Inc., and the persistent queries that continued to come in to the New York office—a stimulus for repeated but futile attempts at reorganization—it seems a safe judgment that internal factors played a large part in the inability of the CCT to survive as an organized expression of the technocracy movement.

Even if it could not organize a social movement, why, one might ask, did the Continental Committee not become a kind of American and technocratic Fabian Society? The question is especially relevant in view of the well-educated leadership and professional membership and of the example of the research carried out under CCT auspices. Two things probably operated here: first, the essentially one-shot, crisis-oriented nature of the theory or ideology; second, and related, the dissension and disillusion with Howard Scott resulted in a dissociation from the term "technocracy," and probably determined a lack of interest or understanding of its philosophical assumptions and long-range implications as well. The CCT had, apparently, no predisposition to found or develop a distinctly technocratic school of radical criticism or social thought.

Technocracy Inc. presents a marked contrast to the Continental Committee. In the 1930's it obviously succeeded in passing from the agitational and public discussion stage to that of an organized movement. It is in the transition to the next stage —where the choices are achievement of the movement's goals with or without institutionalization of the movement, persistence of the movement as a contender for power or the achievement of its ends, or persistence of the movement as transferred into an association for participants' gratification—that the interesting questions lie. The very factors that made for Technocracy Inc.'s success in the organization stage made for defeat in the next phase.

Howard Scott, as the charismatic "Mr. Technocracy," fulfilled the early agitational role, despite the occasional defections and repulsions resulting from his mannerisms and theories. In spite of the New York splits and the fiasco of the Chicago World's Fair Technological Congress, Scott was able to rally

to his organization those people able to fill the organizing roles now demanded. The rapid development of standard and effective rules and regulations for the conduct of the Sections, the training of local speakers, organizers, writers, and the growth of publications have been noted in detail. Ideologically, the study course, with its theory of historical change couched in facts of physical science and stressing the inevitability of the Technate, quite early became a mainstay of Technocracy Inc. It provided a basis for study, exegesis, and argument; at the same time it served to set off the organization definitively from other radical groups. It also seems likely that the Monad emblem and the gray cars and suits served as positive symbols of identification with the organization.

Further, the following attracted to Technocracy Inc. probably provided a better potential for organizational cohesiveness than that attracted to the CCT. After some initial support by engineers and professionals, which did not seem to be maintained, the membership may have been composed primarily of skilled and semiskilled workers who, although somewhat radically inclined, by and large did not have other strong political or ideological commitments.[5] Having joined, they would be less likely to drift away from their organization than the liberals and radicals of the CCT. Further, with a lower degree of formal education than their CCT counterparts, and faced with a better-developed ideology, it seems reasonable to assume that they would become more attached to it. (Formal education, it may be assumed, increases the tendency to be professionally uncommitted because of sophistication about the complexity of social problems and values—which may be another way of stating that, except in extreme crisis situations, the more years of education, the more one's allegiance to the status quo is strengthened.)

While Technocracy Inc. was, up to a point, well able to maintain and expand an organized following, it is in its strategy of relating to the larger society and in the derived tactical considerations, as well as in some perhaps unanticipated consequences of its organizational techniques, that this wing of the

technocratic movement began to falter. Ultimately these weaknesses caused it to become a small, isolated sect, leaving no more lasting impression than did the Continental Committee.

Technocracy Inc. at its inception was even more crisis-oriented than the CCT—recall the predictions of collapse "within two years," later extended to 1942, and the reiteration that nothing could forestall the demise of the price system and all its concomitant social and political institutions. Accordingly, the first statement of Technocracy Inc. put forth two tactics to be followed: the organization of a "disciplined body" for "mutual protection" to keep the wheels turning amidst social disorder, and education and research. Ambiguity surrounded the specific intent and actual practice of one of these tactics. Although a kind of dual power theory was discussed, in which Section organization of functions would provide a bridge to the new society, nothing like the requisite number of trained personnel was ever recruited to make the whole idea anything more than a fanciful gesture. Instead, Howard Scott later talked of a mass movement with implicit political power because of its members (for example, the speech in which Scott reportedly asserted that before long neither the United States nor Canada could discuss war without the permission of his organization). But there was never any definite indication of what this mass movement should do; the ultimate strategy was hinted at as being held in reserve in top secrecy at CHQ; it was asserted that strategy would be decided upon at the opportune time; or it was felt that the "march of events" made technocracy inevitable.

Thus, as a movement, Technocracy Inc. must have seemed either utopian, in the sense of having a set of blueprints but no realistic ideas on how to realize them, or else darkly conspiratorial. The interests of the members themselves centered around the education provided by the organization and were not focused on the problem of power.[6]

Both the educational work and the broader tactical approach, as well as the solidarity devices, led progressively to a sectarian isolation of Technocracy Inc. No publicly available research on the scope of the CCT's National Survey of Potential Product

Capacity was ever completed. The *Study Course* itself, although available to libraries, was stipulated as not to be sold to nonmembers of the organization and thus began to take on the nature of an esoteric text. Failure to revise the book, despite its purported tentative nature, made it even more of a sacred writing. Emphasis on the Monad emblem, the gray suits, gray cars, and centering of activities around the physical location of the Section headquarters served to emphasize the separateness of the organization. This was further reinforced by the ban on Technocrats sharing the platform with speakers of other organizations or engaging in debates or forums. The stipulation that speakers and writers be presented to the public only in terms of their roles within the organization, rather than stressing (or even acknowledging) professional, academic, or other "outside" qualifications, cut another potential bridge to the larger social order. It prevented the growth of a group of recognized Technocrats who could present the ideas of the movement in contexts other than a Section hall or Technocracy Inc. publication. Finally, the insistence on the complete futility of any reform within the doomed price system made it impossible for Technocrats, as Technocrats, to operate within labor unions, peace, civil liberties, conservation, birth-control, free-thought, or other movements with partial ends presumably congenial to the technocratic movement. The "organizational weapon" was thus automatically denied to this wing of technocracy.

In summary, if the Continental Committee had failed in the most rudimentary organizational procedures, Technocracy Inc. by comparison had succeeded almost brilliantly; if the CCT's ideology had been too vague and short-term, Technocracy Inc.'s was too precisely dogmatic and long-range in its vision; where the CCT faded into other groups from which it had never very sharply defined itself, Howard Scott's organization built a magnificent Chinese Wall on its periphery. The techniques of solidarity and some of the organization's basic appeals were also inherently contradictory, thus serving to limit growth. The total constellation of gray cars and suits, lecture restrictions, typographical style, etc., probably created a somewhat bizarre and

exotic image. Such an image might experience difficulties in being reconciled with the rational, professional/technical appeal. The nativist/populist appeal, on the other hand, would seem to be in potential conflict with the emphasis on nonemotional presentation and study of statistical, factual material.

Howard Scott's Role

In order to understand why these internal factors took the particular form they did, attention must be directed to Howard Scott and his associates at CHQ. Inferences must be made about their perceptions and motivations. To what extent did the fumbling example of the Continental Committee, the rise and decline of other movements during the period, determine Scott's own emphasis on internal discipline and devices for building solidarity? To what extent did the experience of his merciless "exposure" and ridicule at the hands of the press in 1932–33 determine the subsequent insulation placed around the organization and its personnel? To what extent, as the 1948 dissidents alleged, did an egocentric desire for personal control and adulation determine organizational mechanisms which, through isolation, kept membership limited and hindered the development of Technocracy Inc. representatives who might have been competitors of Scott for public and internal status? Did Howard Scott, throughout the 1930's, really expect complete social collapse? To what extent did the European situation, concerning both the social dissolution that prepared the way to fascism and the successful techniques of the Fascist movements, influence his thinking? Perhaps a passage from an early speech, reported in the *Vancouver Sun* and reprinted in the *Technocracy Digest,* gives a clue:

> Discussing the various symptomatic changes which have taken place in the social order, he told of watching a procession of Social Democrats in Berlin some years ago, which took seven hours to pass a given spot.
>
> "They believed, as all Liberals do, that you can impress your tolerance of thought upon other people and make

> them believe as you do. Then came along a little Austrian house painter with a funny moustache, Adolph Hitler, and mopped up on them and made them think his way.
>
> "You can vote one racket in and another out, but you can't do anything else, unless you have a disciplined army with technology at the back of it to control social change in an orderly manner," he added.
>
> "If you can't build up a disciplined organization you are going to face social chaos and mob hysteria before very long."[7]

In another speech quoted in the same issue of *Technocracy Digest,* Scott told an audience at the University of British Columbia that each one no longer could choose what he wished to do, but only what he had to do: he must choose either for or against Technocracy.

> If you don't make your decision now, if you hesitate and waver, after the manner of the intellectual liberal, you will have your decision made for you at the muzzle end of rifles in the hands of thirty-six million unemployed that there will be in the next depression.[8]

The motivations and perceptions of Howard Scott must necessarily remain unknown quantities. One possible explanation, however, although on the surface fantastic, may account for many of the observed characteristics of Technocracy Inc. This is simply that from its inception, the organization was consciously designed as nothing more than a vehicle for the personal seizure of power by Howard Scott. "Men do not create events; events create men" was a favorite quotation of Scott's. Suddenly thrust into national prominence in the winter of 1932/33 by forces he did not control, then as suddenly dumped into obscurity in part because of the lack of any organized following, did Scott determine that if there were to be a next time, he would be prepared? Scott was characterized as both brilliant and egocentric by his own followers. The allegation of the 1948 dissidents that Scott ran Technocracy Inc. as a racket does not quite

ring true inasmuch as there was no evidence of personal high living. Nor would respect for the Chief probably have been less in an organization with a quite different structure and tactics—the founder is often revered. But if viewed as part of a personal instrument for power, many of Technocracy Inc.'s characteristics begin to make sense. All of the things cited as leading to the sectarian isolation of the organization become defects only if one assumes that, as the expression of a social movement, the organization's goals are the widest possible dissemination of the ideas of that movement and the recruitment of an increasingly large following. But if the "movement" is not that at all, but a personal vehicle, internal discipline with the ability to act becomes paramount, ideological and recruitment matters secondary.

Howard Scott's own statements were always veiled, and direct reports of his dictatorial ambitions are all from his opponents in the Continental Committee and cannot now be verified. Scott and Technocracy Inc. have issued repeated denials of any "assumption of power theory." However, in addition to the inferential evidence from the organization's history and characteristics, the crucial fact is the 1942 campaign for Scott as director-general of defense. (Interestingly, in 1960 a CHQ writer placed the immediate post-Pearl Harbor period in the same crisis category as the winter of 1932/33.)[9] *Without* the fact of Scott's nomination of himself as virtual dictator, it could be argued that the whole total conscription episode was either a necessary tactic to preserve the organization (as it became after the director-general campaign backfired) or a serious proposal for wartime efficiency (as apparently the membership saw it, even after defection and reflection).

If this guess is correct, it introduces a bifurcation into Technocracy Inc. as organized expression of the technocratic movement. It does not mean that the theories and ideology, the motivations and perceptions of the members must be discarded as irrelevant, but that they must be considered in some sense as developing independently of the "real" purpose of the organization. The theories, ideological orientation, and values, though

perhaps incidental to Howard Scott's power motivations, were seen by the membership as most important. What has here been inferred as the intended purpose of the organization was not perceived by the members at all.[10]

Because Howard Scott played such a dominant part in the technocracy movement, the way in which the members of his organization looked upon him is of some interest. A number of former members, biased undoubtedly toward negative appraisals, were asked what their over-all impression of Scott had been when they were Technocrats and how they have evaluated him as a leader.[11]

A lawyer, who had met Scott in 1933 and who had been active as a speaker and officer in the organization until 1947 when he dropped out not because of disagreement or disillusion but because of a heavy occupational workload, writes of Howard Scott:

> Intellectually he towers far above any person I have ever met in America or in Europe. He had the courage of his convictions and did not "sell out." Without Mr. Scott there would not have been a movement like Technocracy. He has been persecuted, ridiculed, villified, spied on, and given the "silence treatment" by the press and ruling circles, but he still marches on. There is only one Howard Scott, a *very great man.*
>
> As a leader of Technocracy, Mr. Scott had to detach himself from the philosophical way of thinking within the framework of the Price System and adopt the objective, scientific method of thinking. Technocracy could not succeed by diplomacy, business methods, likes and dislikes. He was therefore a unique, remarkable, and great leader.

A college-educated laboratory assistant who had been a Technocrat for nine years and served as a Section governor of education describes his changing evaluations of the Chief:

> A man of unusual capacity and vision for his field, the application of engineering approach and techniques to the

material operation of the social group on this continent. A man of unusual power of thought and also of expression, and with considerable acumen. A man of powerful personality, honest and uncompromising with regard to the body of thought he represented, and with unusual potential for valid leadership.

[*Q:* How did you happen to leave Technocracy?] I felt that the potential above became less and less effectively used; there seemed to me to be a growing incursion of personal motivation and a growing tightness of control at the top together with this, a combination which tended to vitiate and rigidify the organization.

Another former member, active from 1933 to 1948, an officer in three different Sections during that period, by occupation a toolmaker and modelmaker, and an active unionist, with three years of college, is strident in his denunciation of Scott:

> Howard Scott was referred to by many who knew him as Pope Howard I. He had such an extreme case of inferiority complex that he felt a compulsion to eliminate the competent people and keep only those who were hero worshippers. Despite his bluster he was very cowardly. I saw him in action during "Operation Columbia." He was actually afraid to enter British Columbia. Scott destroyed Technocracy Inc. He was a number one stinker. He was so afraid Technocracy Inc. would get too big for him to control, that he sabotaged it continually. I personally know that he was directly responsible for preventing a Canadian speaker from entering the U.S. for a tour.

An engineer who helped found a Section expresses mixed feelings which are in some respects typical of a number of the former Technocrats surveyed:

> I thought of him as conceited, but he had something to be conceited about! He was a very intelligent man, and he always *seemed* to be in control of every situation he was in—whether he actually was or not. He was a little too

> much like Hitler to be a good leader. He was rather domineering—he dominated his audience by tricks rather than by Technocracy. Technocracy was sensible, but he used verbal tricks rather than sense. He used to say: "Hello, Suckers!" Little did we realize that he was speaking the truth! But he had a wonderful memory for people's faces and names. But there was a lot of folklore built up, a lot of hero-worship. And he created the impression among members that his word was unimpeachable. I thought he knew more about Technocracy than I did.

An advertising and promotion director, who had been a Technocrat from 1935 to 1954, cites two sides of Howard Scott's character:

> I admired his keen intellect, his energy, his industry, his knowledge of some of the laws of science and technology. He honored me with his confidence and gave me high commendation, which was rare for him. As a leader he was too brusque, impatient, and tactless, even though he had the knowledge.

Another engineer, a Technocrat for about ten years after his college days, reflects on the kinds of leadership roles demanded by different situations:

> I was impressed very much with his ability to handle and manipulate people around him. His word was taken as law. At that time I gave him credit for most things that were Technocracy. He was more than just the head of the movement, he was "Mr. Technocracy" himself. But Technocracy never went into anything deep enough—it just had glimmerings of the scientific approach. I wondered if this wasn't an attribute of Scott's personality—to not go into things deep enough. We never put the meat on the skeleton of the Technate we talked about.
>
> [He was] a tremendous leader—with a following that he built up. He displayed leadership. But there are many kinds of leadership. In a mob situation one kind of leader is

needed—one who can get people to do what he says and follow him. But in an engineering design situation another kind is needed. I'm afraid Scott was more the mob situation kind of leader. He had a habit of dismissing questions and at the same time embarrassing you for asking them.

Technocracy's Significance as a Social Movement

Two choices are open in trying to assess the significance of technocracy in American history and culture. The simpler is that it was merely one of many forms of eccentric belief and organization, of collective behavior, arising in troubled times. When old certainties become ambiguous the need for explanation and stability can cause the most unlikely ideological mixtures to be put together from the elements at hand in a culture. Such a position can be argued by emphasizing the contradictory strands within technocratic thought, its increasing isolation from American life, and its almost total disappearance from the contemporary scene.

But some might alternatively argue that many of the technocratic themes are disturbingly familiar still; that something was there, in distorted or refracted form, more significant than a chance collection of the bizarre in ideas and organizational form. To interpret technocracy in this way means to subsume it under some more general category of social-economic movement. Several possibilities exist. Was technocracy an instance of a modern totalitarian movement of the kind made familiar especially in European experience; more specifically, could it be called a variety of fascism? Or, might it be seen as type of "managerialism" or of socialism or "bureaucratic collectivism"? Selecting various aspects of the movement for emphasis and interpretation, one can force it into one or another category with varying degrees of difficulty.

Mass Theory and Totalitarianism

Two distinct types of theoretical approaches both in defining and in explaining totalitarianism have current vogue: mass theory and class theory. Mass theory was formulated as a re-

action to the crudities of one type of Marxian class analysis which saw nazism and communism as polar opposites. To the mass theorists, there were more similarities than differences between the two types of regimes. Since the presumed interests and actions of different classes underlay each type of regime, a different explanation, which could call on a common set of factors, was needed. (Disillusioned socialists and Marxists, appalled at Soviet practices, also needed a new approach, or at least one supplementary to class analysis.) What emerged was a theory sufficiently sweeping and somber to account for the unparalleled facts it had to confront. What had happened, because of war, depression, inflation, or the inevitable dislocations of urbanization and industrialization, was that the classes, and other solidary social groupings as well, had been broken down, dissolved into the masses—rootless, restless beings ready to be mobilized by the leader, the party, and the ideology, ready to do anything, tolerate anything, in the quest for that community which had been destroyed. But the new community is but a pseudocommunity, for totalitarianism in its essence is the maintained massification of society through the party organs which reach into all aspects of life, from workplace to family. The party-state merges with society, maintaining power through technologically conditioned monopolies of violence and communication and the systematic application of police terror.

A number of criticisms can be made of mass theory. First, as a theory, it seems too broad and general in its categories to offer much real understanding. If the theory is refined to specify which groups or aggregates of people, under what conditions, become masses, e.g., displaced army officers, unemployable intellectuals, inflation-ruined middle classes, unemployed workers, etc., then another kind of theory is, in fact, being utilized. Secondly, if the notion of massness is used descriptively for certain kinds of normative change, conditions of suggestibility, anomie, etc., again the mass theory is redundant with previously developed notions. Finally, alleged ideological implications of the theory have been criticized. (However, at least one theorist, William Kornhauser, has explicitly attempted to cancel out

possible bias by combining the "aristocratic" and "democratic" criticism of mass society into a single theory.)[12] Mass theory often appears in a context which implies that contemporary society is inherently predisposed to totalitarianism or extremism, and hence inherently evil. The theory is often constructed so that *any* movement for change which is not in the form of a parliamentary political party is, by definition, mass, extremist, or totalitarian. Here, it seems the myth of the medieval synthesis with its neatly balanced corporate groups has been transformed into the model of the pluralist society with its independent, competing groups arriving at moderate consensus in the free market of ideas and the arena of electoral competition—a model also curiously like that of the classical economists. Outside the limits of this model, by implication if not by definite warning, lie mass social disorganization and the terror.

The ideology, the organization, and the leadership of a totalitarian movement all have distinctive characteristics. The ideology is central to the movement, is complex, calls for a total reconstruction of society with explicit or implicit millennial overtones, and stresses the role of a select organization, the party, in fulfilling this mission. Violence is necessary for the destruction or the cleansing of the old order. The party itself is more like a secret society or an order; it requires a small, select, "called" membership, internal discipline and solidarity, devotion to the leader, and it is heavily overlaid with rituals and symbols. The leader and the party are almost mystically intertwined; the party expresses the will of the leader, but the leader is in turn the embodiment of the goals of the party. The party is bureaucratized at its lower levels but linked to the leader by more particularistic ties at the top levels. The leader himself is a unique, charismatic individual, directing by virtue of his innate superior abilities and insights. (This general description draws on no one specific source but would be close to the conception held by most of the mass theorists. Parts of it are an uneasy synthesis of specifically Nazi and Communist elements. The difficulties in such combination, especially as one becomes more specific, are often encountered in this type of analysis; e.g., the

assertion that the notion of the class-conscious proletariat is "the corresponding concept in the communist armory" to the Germans' "Aryan race concept.")[13]

Many aspects of Technocracy Inc. in its matured form would seem to fit this general model. Several elements, however, seem significantly absent. While the organization of Technocracy Inc. fits the model of the party quite well, the notion of the party and its role is not found in Technocracy's ideology. Similarly, while Howard Scott's actions as reported in Technocracy's press and by his former followers coincide closely with those of the leader, there is no such role in the formal theory. This is in sharp contrast to the explicit concept of the "vanguard party" in Leninist doctrine and to the "leadership principle" in Nazi dogma. It might be argued that existence of these features without formal theoretical call or justification for them demonstrates that Technocracy Inc. was in fact a totalitarian movement in spite of its theories, that it was a product of the same social conditions that had created the movements from which the model was derived. Or, it might be argued that totalitarian organizational trappings without theoretical justification was a result of the hypothesized bifurcation between Technocracy Inc. as an expression of the more general technocratic movement and as a personal vehicle for Howard Scott. In this instance, he might deliberately have copied features of successful European movements.

Finally, the emphasis on violence is lacking in Technocracy Inc. Indeed, the organization constantly reiterated the necessity for avoiding violence to keep the delicate interdependence of modern society from breaking down. At least one theory of totalitarianism sees "the employment, even glorification, of violence for the realization of the goals which the ideology posits" as a "specific totalitarian ingredient."[14] Again, however, some of the paramilitary accouterments of Technocracy Inc. looked to outside observers as preparations for violence, even though this was not perceived by members of the organization.

One further ideological question should be explored: Is the kind of future society pictured by Technocracy Inc., the Tech-

nate, a totalitarian one? Two opposing viewpoints can readily be adopted. The complete organization of all production, service, education, and distribution functions, together with their supervision, into one interlocked bureaucratic structure can easily be seen as a "total" society—there would be little chance to be "outside the system." But from a radically different viewpoint, in the absence of a party or political state as such, the scheme can be seen as a form of anarchosyndicalism, with the coordinating features demanded by a highly specialized and geographically distributed division of labor. Looking at the terroristic control in totalitarianism, the important question is what would have happened if a serious attempt had been made actually to set up a technocratic scheme of organization—an academic point, given the minute size and negligible influence of the movement. It has been asserted that totalitarian oppression is specifically due to this problem: "It is precisely this attempt to impose on society a rationally, or rather pseudo-rationally, conceived pattern of distinctly novel forms of social organization that leads to the totalitarian oppression."[15] Apart from considerations of other causes of totalitarian terror, whether an attempt to set up a Technate would result in oppression seems to depend on whether the projections for a technocratic society are just that, capable of being modified by experience, or whether they are dogma to be instituted at all costs. This judgment, in turn, depends on the assessment of the movement as a whole: its leadership, its membership, the context in which it developed.

Class Theory

The kind of Marxism that, because of its "bourgeoisie–proletarian" and "capitalism–socialism" dichotomies, gave rise to mass theories in an effort at a more refined explanation is usually thought of when class theories of social movements are invoked. It is not necessary to return to this approach, however, in order to provide an alternate explanation of movements, in particular modern totalitarian ones, to that given by the mass theorists. (Mass theorists prefer to work in the opposite direction: "What class analysis does not help explain is the *extremism* of totali-

tarian movements: their appeal to the most extreme dispositions of individuals and their readiness to go to any extreme in the pursuit of their objectives.")[16] In the argument that follows, a framework suggested by Seymour Martin Lipset in " 'Fascism'—Left, Right, and Center" will be utilized.[17]

According to this approach, each of the three major class groupings in Western society—upper, middle, and lower—has a characteristic political ideology which may be expressed, depending on conditions, in a moderate political party form or in an extremist movement. Thus, social democracy, liberalism, and conservatism are expressions of the same social class bases which result in three distinctly different types of extremism (although the label "fascism" has sometimes been used indiscriminately to cover all of them): communism or Perónism; fascism, Poujadism, and McCarthyism; and clerical-aristocratic-military dictatorships. (Lipset is careful to point out that incipient movements like Poujadism or McCarthyism may or may not have become like full-fledged fascism if they ever attained power; what is important are the commonalities in both ideology and social base.) Can technocracy, and especially Technocracy Inc., fit into this scheme?

Most commentators on the technocratic movement have assigned it, especially in the Technocracy Inc. phase, to the category of facism. The role and pronouncements of Howard Scott, use of the Monad emblem, gray cars and suits, populistic attacks on business and politics, the denunciations of democracy, the patriotic, isolationist emphasis before the Second World War, Anglophobia, the scapegoating of Catholicism, and an explicitly classless appeal to "the American people" all seem convincing earmarks of a Fascist movement. This is, however, probably an erroneous interpretation. Bearing in mind the assumed divergence between the goals of Howard Scott and the tactics consequently imposed on his organization, and the more or less latent element of Technocracy Inc. as an expression of a broader technocratic movement, it is felt that a close examination of both the ideology and social base will demonstrate technocracy to be something other than native American fascism in a gray suit.

Two crucial elements of Fascist ideology are missing from that of Technocracy Inc.: anti-Marxism or anticommunism, and anti-labor union sentiments. The lower-middle-class adherent of fascism feels as threatened by "big labor," which seems to him epitomized in Marxism or communism, as he does by "big business." Technocracy Inc. has never singled out Marxism for special propaganda attention. When, in passing, it has been concerned with the topic, it has either dismissed it as a "scarcity philosophy" or looked with a patronizing air on anyone wasting his time in this mechanized age on a labor theory of value. Communists might be included with other assortments of politicians as a target of abuse or amusement, but they were never selected for special treatment or magnified as a subversive menace. In view of some of the other flag-waving of the organization, this would seem to be an important fact. As for labor organization, it is significant in Technocracy Inc. literature largely by its absence. Where unions are dealt with, they are passed off as perhaps worthy efforts on the part of some "suckers" to become "chiselers," but efforts nevertheless doomed to futility by the rules of the game of the price system and the increasing technological elimination of jobs.

Probably an even more significant aspect of technocratic ideology lies in the projection of the Technate, the society of the future. The Fascist, typically, is the little guy caught up in an increasingly organized society which threatens his status, power, and income; he would, if he could, return to the world of small business, the family farm, and private rather than corporate property, with marked income and status differences. But the technocratic future represents the most extreme extrapolation of the very urbanization-industrialization against which the Fascist reacts; it is a completely bureaucratized society, with equalitarian income, universalistic recruitment of elites, and no property rights apart from immediate personal possessions.

It may be argued that Technocrats could have been attracted by the aspects of the ideology and organization that were consistent with a Fascist appeal, ignoring contradictory ones. This may have been true, especially given the alleged power of Howard Scott's platform rhetoric. On the other hand, interview

and questionnaire data from a number of former members would not seem to support this position.[18] It must also be remembered that, in the 1930's, outright Fascist movements existed which presumably could have outcompeted the Technocrats' on this basis.

These inferences from the ideology are consistent with incomplete information on the social base of Technocracy Inc. The small businessmen, clerks, and farmers that one would expect to find in a Fascist movement do not dominate the ranks of the organization. In one study of a cadre group, skilled workers were the largest category, with a significant minority of professionals (expected at this level in any movement).[19]

Within the Lipset framework of right, center, and left extremism, Technocracy Inc., as the "mature" phase of the technocratic movement, seems best to fit within the left-extremist category, in terms of both ideology and social base. (The Continental Committee on Technocracy, with a middle- and upper-middle-class base, shifts toward the center and liberal part of the framework.)

Lipset has characterized left-extremist groups as being *economically* radical, equalitarian, or democratic, but as authoritarian on noneconomic issues.[20] While the concept of working-class predispositions toward authoritarianism as utilized by Lipset has been attacked on political and methodological grounds, the general assertion would appear to cover the over-all ideological flavor of Technocracy Inc.[21]

In an international survey of working-class extremist movements (here, communist) Lipset found that where the movement is small, its ideology is intellectual, complex, and draws the support of relatively more skilled and better educated members of the working-class. This was apparently the case with Technocracy Inc.

Continuing to follow the Lipset scheme, a somewhat disturbing element is his observation, based on communist success and Perónism, that left-extremist movements seem characteristic of partially or recently industrialized societies. But technocracy distinguishes itself as being uniquely directed at a highly indus-

trialized society. Its basic criticism of the price system is that it has been too successful in producing an abundance which it cannot distribute. The central concerns with technological displacement of labor and of the necessity for continuous coordinated control of the industrial-economic mechanisms are relevant only in a mature industrial society. These features of technocratic ideology reflect a refinement that can be made in discussing socialism or leftism. By refining this category, the original Lipset scheme may be made more applicable to the instance of technocracy.

Socialism has meant many things both to its proponents and opponents; its varied historical tendencies cannot be given here. It may be relevant, however, to dichotomize all schools of socialist thought into those that focus on the working class or proletariat and those that focus on the reorganization of the total society. Each broad category has distinct implications for the diagnosis or critique made of capitalist society, the prescriptions for social reconstruction, and the strategy necessary to achieve it. Thus, what may be labeled "proletarian" socialism calls attention to capitalism's creation of a new social class, the wage laborer. It demonstrates his economic exploitation and may appeal to a sense of moral injustice over his misery. Usually, the task of overturn and reconstruction is his too; through social, economic, and numerical position, manifested in class-conscious organization and democratic claim, he is destined to become the new ruling class. Usually, too, the new socialist society must not, or cannot, be drawn up beforehand by intellectuals and planners, but must emerge naturally out of the experience of the working class after it has attained power.

In marked contrast stands the approach of what might be termed "societal," "institutional," or "organizational" socialism. While not necessarily blind to the difficulties of the working class, it presents a different indictment of capitalist society. Capitalism is seen either as progressively unstable and unworkable or as increasingly indefensible morally, in terms of presumed society-wide or universal moral or religious values. What is needed is a planned reconstruction of society which will

either replace the anarchy, waste, and economic instability of capitalism or eliminate its injustices in employment, education, economic rewards, or political power. The socialist of this variety is prone to drafting blueprints which will accomplish one or both of these goals. He will woo the working class as a potential source of power, perhaps presumably as the one with the most to gain from the institution of the socialist society. But the approach is at least as likely to be one of logical demonstration of the greater efficiency or higher moral virtue of the new society to all reasonable people, wherever in society they may be found.

Common to both conceptions of socialism are the replacement of private by public or state-owned capital, cooperative rather than competitive organization of production, and a presumed greater degree of economic equalitarianism than under capitalism. (Whether, and to what extent, forms of political democracy are intrinsic to the concept of socialism is a matter of continuing polemic among both socialists and antisocialists.)

In thinking of societal or institutional socialism, the so-called utopian socialists probably come to mind: those who, for whatever motivations, and starting from various assumptions about human nature and the social good, have spun detailed pictures of a better society than that in which they found themselves. But applied to technocracy, the label misses an important point: one made by Emile Durkheim in a study of nineteenth century socialism. The labels he used have become attached to different content, but the underlying distinction is still valid. For Durkheim, communism was essentially a *pre-industrial* phenomenon, which satisfied "needs of charity, fraternity, humanity." Socialism, on the other hand, is a *post-industrial* movement, "dependent on obscure causes which push society to organize its economic forces." Communism is concerned with equalitarianism based on moral criteria; socialism is concerned with the necessary integration of technology, economy, organization.[22]

The important point from Durkheim is that just as proletarian socialism, with its focus on the new working class created by industrial capitalism, is a specific product of that system, so

too is one kind of societal or institutional socialism. The latter is concerned with the problems of technological, economic, and administrative integration posed by modern industrial technology, and it seeks a solution within a framework positing the abolition of private property rights and the introduction of economic equality. Technocracy may approach the ideal type of such a movement.

But how do the demagogic, populist appeals used by Technocracy Inc. fit in with this movement? Populism in general has been linked recently and increasingly with incipient fascism. This may be a genuine theoretical insight of a high level of generality despite the difficulties in using an American historical phenomenon across societies, even Western societies. On the level of speculation, however, an alternative might be that perhaps "populism" has became the central rhetoric for certain levels of dissent in American culture. Europe's working-class-based Marxist and socialist tradition apparently has not been successfully transplanted into the United States, nor does an indigenous equivalent seem to have developed. It may be, therefore, that the originally agrarian, populist mode of dissent has diffused into urban working-class and middle-class America. If what C. Wright Mills has called the "liberal rhetoric" has come to characterize the conventional, moderate, and more educated levels of political discourse, perhaps a "populist rhetoric" characterizes the dissenting, extremist, and less educated levels. Thus its appeals could be found attached to leftist protest movements, including technocracy, as well as to radical right movements.

Technocracy as Managerialism

Another approach to technocracy is to see it as an expression of managerialism. This concept introduces a third way of handling political movements: skill politics, in contrast to mass and class politics. Historically, theories of mass politics grew out of perceived inadequacies of Marxist class political theories; skill-politics theories in a sense are an extension of the Marxist approach. Where Marxism sees political action organized around two groups with differential interests and power resulting from

their functional relation to the productive process, skill theory refines these classes in terms of further specialization and introduces specialists in (Marxian) nonproductive roles as well; e.g., specialists in violence or in propaganda. The neo-Marxism of the theory is evident in the underlying assumption that each group of specialists possesses a power potential on the basis of its skill, an ideology relevant to its training and interests, and competes or struggles with other skill groups for a larger share of socially available values, among them the economic. The foremost skill-politics theorist, in terms of having worked out the categories of the scheme, is Harold Lasswell.[23] Perhaps the best-known attempt to make a sweeping analysis and predictions in terms of one kind of skill theory—not Lasswell's—is James Burnham's *The Managerial Revolution.*[24]

Burnham, writing in 1940, started with the old Marxist dichotomy of captalism or socialism and demonstrated to his satisfaction that a third type of society had already begun to manifest itself within nominally capitalist or socialist states: the managerial society. Nazi Germany, Stalinist Russia, and, in a preliminary stage, New Deal America were all seen as approaching the managerial type along different pathways from divergent historical backgrounds. The final form of such societies would be one in which the managers of state-owned economies determined access to the means of production and could, therefore, allocate the products—differentially in their own favor, of course. One of the problems with Burnham's analysis is that the category of "managers" is defined so broadly, and in places so elusively, that at times Burnham seems to state nothing more than the truism of increasing bureaucratization, or large-scale organization, in modern society. A second problem is the degree to which the "managers" did in fact exercise power in the societies cited by Burnham.[25]

In his book, Burnham explicitly saw technocracy as "another example of an American variant of the managerial ideologies." "As a matter of fact, Technocracy's failure to gain a wide response can be attributed in part to the too-plain and open way in which it expresses the perspective of managerial society." But

he felt it had influenced the New Deal, communism, and fascism.[26] Harold Lasswell, using more precise categories, cites both Veblen's *Engineers* and technocracy as examples of political demands based on engineering skills.[27]

In any strict sense, however, it now appears that technocracy was *not* primarily an engineers' or managers' movement. Aside from its very early stages, technocracy as a movement—in both its Technocracy Inc. and Continental Committee forms—did not primarily attract engineers or managers. Probably the closest to a genuine engineers' and managers' technocratic group was Chicago's All America Technological Society, headed by a Sears, Roebuck manager and listing engineering-management consultants prominently in its membership. But recall that this group was of extremely short duration, was probably largely a paper organization, and was set up by a Wobbly. Both Burnham's and Veblen's works suffer from the Marxist assumption of "true consciousness"—that the select group (here the engineers, originally the proletariat) will come to realize its "real" interests and organize and act accordingly.

Whatever else may be said, the record of technocracy as a movement does not support this assumption. Changes in the division of labor creating technical specialists are necessary, but obviously not sufficient, conditions for the generation of a social movement based on them. But there is another way in which technocracy can be related to managerialism, or to the political demands of engineers as a skill group. It could be a managerial or engineering ideology rather than movement; if Veblen was no engineer, Marx was no proletarian. This possibility is recognized by both Burnham and Lasswell: "That an ideology should be a *managerial* ideology, it is not necessary that managers should be its inventors or the first to adopt it."[28] Once again, the proposition seems appealing but leads to further problems; for, how, precisely, can *the* managers' or engineers' ideology be determined or predicted (unless, of course, one already has a master theory which spells out appropriate ideologies and "real" interests for all elements in society)?

Burnham has a straightforward answer to the problem: the

managers' ideology is one that, in various forms, justifies managers' control over access to the means of production and consequent seizure of a disproportionate share of its bounties. This is, in fact, what has often been thought by journalistic commentators to be the essence of technocracy: the rule (and the rewarding) of the engineers, the replacement of a business and political elite with a technical elite. However, it has been demonstrated that this is not really what technocratic ideology involves; with few exceptions, technocracy is presented neither as a self-interest theory for engineers or scientists nor as a call for the masses to present them with a crown. It is an *engineering* rather than an *engineers'* ideology. The difference is crucial, especially when it is recalled that the originators and adherents of an ideology need not be the obviously associated personnel: engineering *methods* may be advocated by persons quite other than engineers.

In summary, technocracy might be conceived as one specific form of technical-managerial ideology, although all of its aspects could not be predicted on the basis of the more general concept. Conversely, managerialisms with values quite divergent from those implicit in technocracy seem possible and probable. There is no simple correspondence between the posited engineering or managerial ideology and engineers and managers as carriers of that set of beliefs. Indeed, technocracy as a movement has declined during the very period of time that the type of personnel supposedly congenial to such doctrines have increased in numbers and importance.

Epilogue

The influence of the technocratic movement upon American society has been negligible. But if the perspective is reversed, so that one asks what continuing problems, values, and viewpoints produced technocracy, identical factors can be seen to be producing once more a sizable body of thought. As yet, this has not crystallized into a movement although some tentative indications of this possible next step can be found.

All of the familiar technocratic themes have been expressed again in recent years, by people who do not regard themselves

as technocrats, as being influenced by that movement, or as participants in any new common social tendency. The basic problem for all of them continues to be unknown social effects of a constantly expanding technology.

The viewpoint of social change as determined or limited by the amount of nonhuman energy available to a society has been recently restated in scholarly and diverse formulations by sociologist Fred Cottrell (*Energy and Society*), British physicist A. R. Ubbelohde (*Man and Energy*), and anthropologist Leslie White in his various works.

Social critics continue to raise the question of the values implied by an engineering orientation, on the one hand, and by the values by which technical development shall be controlled, on the other. Recent and prominent among them is Paul Goodman. In the conclusion to his popular *Growing Up Absurd,* Goodman lists a number of partial, failed, or missed "revolutions" which, taken together, flaw contemporary society. First is technocracy:

> In our own century, philosophers of the new technology, like Veblen, Geddes, or Fuller, succeeded in making efficiency and know-how the chief ethical values of the folk, creating a mystique of "production," and a kind of streamlined esthetics. But they did not succeed in wresting management from the businessmen and creating their own world of a neat and transparent physical plant and a practical economics of production and distribution. The actual results have been slums of works of engineering, confused and useless overproduction, gadgetry, and new tribes of middlemen, promoters, and advertisers.[29]

Economists, too, have been raising some of the old issues. John Kenneth Galbraith's much misunderstood *Affluent Society* argued that classical economic concepts designed to handle problems of increasing production in an era of scarcity have been outmoded by technologically produced abundance; the writings of Robert L. Heilbroner have also been concerned with a range of questions deriving from the conflict between traditional economic assumptions and consequences of modern tech-

nology. In the novel and distinct form of automation or cybernation, technological displacement of labor again poses the problem of maintaining employment and adjusting working hours. A few economists have reiterated the old technocratic notion that under current conditions the historical link between labor and income has been broken; Robert Theobold has been the most widely recognized spokesman for this position. This issue in turn raises the host of interlocked questions about the place of work, consumption, and leisure in the total culture—and whether in fact current technological changes are qualitatively different in their consequences from all that have gone before. As yet all of this intellectual ferment has not crystallized into any discernible, distinct ideology, nor has it been adopted by any organized grouping. Closest was the Ad Hoc Committee on the Triple Rerovlution. Under this name, a group of thirty-two economists, labor leaders, and business and professional men released a statement in 1964 asserting that the "triple revolution" in weaponry, civil rights, and cybernation meant a drastic reorientation in economic thinking and practices. Arguing that "the traditional link between jobs and income is being broken" the statement urged that "society, through its appropriate legal and governmental institutions, undertake an unqualified commitment to provide every individual and every family with an adequate income as a matter of right." Echoing the technocratic furor of 1932, the short manifesto of the Ad Hoc Committee aroused much more interest than the signers had anticipated; five hundred items of press comment appeared in the year after the statement's release.[30]

Concerned about continued debate and uneasiness over the topic, the federal government in 1964 established an investigative National Commission on Technology, Automation, and Economic Progress. Composed of business and labor leaders, academics, and an appropriate staff, the commission released a cautious summary report, *Technology and the American Economy,* in February, 1966. Included among twenty diverse policy recommendations was one which proposed that "economic security be guaranteed by a floor under family income." The

discussion makes clear that more than reform of present wage-related and public assistance systems is meant; some form of payment by the federal Treasury Department to all whose income falls below a stated minimum is contemplated. Another tentative step seems to have been taken toward the technocratic thesis that under modern conditions a given level of income is a basic right of citizenship.

How did the remaining Technocrats react to all of this?

> Belatedly, [they wrote,] the scholars of the Price System are being jarred into mental agitation by the march of events and are beginning to fumble with ideas that were thoroughly worked out and given world-wide publicity more than three decades ago. Technocracy invites the members of the Ad Hoc Committee and other interested parties to get moving and really catch up with Technocracy, at least as it was presented thirty years ago.[31]

Appendix A: Edward Bellamy and Technocracy

One of the most renowned of all utopian works, Edward Bellamy's *Looking Backward: 2000–1887,* is frequently discussed as being the "real ancestor" of technocracy. While the present book does not direct itself to the question of the ultimate intellectual sources of the movement, some comment on the relationship between Bellamy and technocracy is appropriate, first, because the Continental Committee on Technocracy consciously modeled some of its ideas after Bellamy's; second, because Bellamy and his disciples, like the technocrats, saw their work as uniquely American.

The social organization envisioned by Bellamy was centered around nationalized industry, self-governing through its "industrial army" staff, with equal incomes distributed by what is essentially a nonmonetary system of accounting. A high level of education was to be guaranteed to all citizens; full purchasing power was to be maintained after retirement at age 45. The outline of the projected society, as laid forth in *Looking Backward, Equality,* and miscellaneous writings is well enough known not to need recounting here.

Despite differences in detail, a number of the basic principles of organization are remarkably similar in Bellamy's and in technocratic theory. (1) The organization of all industries into a few large-scale, publicly owned units, administered by technical experts who are selected from within the ranks of the units concerned. (2) A bureaucratic rather than an industrial-democratic organization of the workplace. (3) Equal, independent income issued to all members of society as a right of citizenship. (4) Income distribution through a nonmonetary accounting system wherein the registration of items purchased serves as an automatic means of estimating future production requirements. (5) The elimination of a political government, i.e., officials other than those at the heads of the productive, distributive, and professional units, and the abolition of political parties. (In later years, responding to criticisms of his system as undemocratic, Bellamy introduced into it the initiative, referendum,

and recall, but without changing its essential structure.) Some lesser parts of the two approaches also resembled each other, and one wing of the technocracy movement even recommended *Looking Backward* and *Equality* to its members as guides to the technocratic society. One might also speculate about the possible connection between Bellamy's "industrial army," complete with ranks and military discipline, and Howard Scott's selection of the term "Technological Army" for his Technocrats. (The connection may be more directly with Veblen's discussion of technicians as the "Industrial General Staff," however.)

A final, and important point of similarity is the explicit relationship to prior socialist thought. Technocracy proclaimed itself a wholly new approach, without any ties to previous ideologies, especially European ones. And Bellamy, while he had traveled in Europe and was familiar both with the socialist movement there and with Marxism, avoided identification with either. He preferred the term "nationalism" (for nationalization of industry) to "socialism," and the party founded to further his ideas used that label. His sentiments are aptly expressed in a widely quoted letter:

> Every sensible man will admit there is a big deal in a name, especially in making first impressions. In the radicalness of the opinions I have expressed, I may seem to out-socialize the socialists, yet the word socialist is one I never could well stomach. In the first place it is a foreign word in itself, and equally foreign in all its suggestions. It smells to the average American of petroleum, suggests the red flag, and with all manner of sexual novelties, and an abusive tone about God and religion, which in this country we at least treat with respect. For the rest, *socialist* is as genuine slang as those choice phrases *society man, society woman,* etc. It is, so far as the real meaning of the word is concerned, as proper to call a lady of fashion a socialist as to call a man interested in industrial reforms by that name; whatever German and French reformers may choose to call themselves, socialist is not a good name for a party to succeed with in America. No such party can or ought to succeed that is not wholly and enthusiastically American and patriotic in spirit and suggestions.[1]

As for Marxism, according to one biographer, Bellamy felt "that sufficient thought had not been given to the planning of the government which was to follow the uprising of the proletariat."[2]

Moving from the design for the new society to the tenor of criticism of the old one, another link exists between Bellamy and technocracy in some shared "populist" attitudes. (In the case of Bellamy, the connection is hardly accidental—his Nationalist party became involved in the Peoples party itself.) For the populist, professional politicians, businessmen, financiers, and lawyers are, at best, parasites upon the productive classes and, at worst, conspirators aiming at their enslavement. For both Bellamy and the technocrats, politicians and lawyers would be unnecessary in the new society and perform only antisocial functions in this one; businessmen could readily be replaced with more efficient and direct methods of distribution, and the whole financial and credit superstructure was perceived as a social burden and chicanery.

For all these similarities between the thought of Edward Bellamy and technocrats, there are dissimilarities which point out the nature of Bellamyism as, conceptually, a transition between an older, essentially pre-industrial "utopian" societal socialism, and technocracy. There is a duality in Bellamy's rationale for the new form of social organization and for the impetus behind its achievement. Thus, on the one hand, as Arthur E. Morgan has stated of Bellamy: "it is one of his chief and soundest points, frequently expressed in his writings, that in a complex organic society the measurement of a man's individual achievement is impossible."[3] Bellamy was familiar with the efficiency of European civil service systems and military procedures, using them as models for his industrial organization. But these organizational principles were clearly outweighed in emphasis by ethical and moral considerations; it was really a spirit of cooperation, a religion of solidarity, that underlay the equalitarian and collectivist frame of his projected social order. Similarly, while he saw the continued consolidation of enterprises into larger and more efficient units as leading to ultimate nationalization, and recurring economic crises as providing an opportunity for the government to organize idle men, equipment, and resources into the first nationalized units, it was in the last analysis a moral transformation, a "Great Revival" as Bellamy termed it, which would provide the dynamics of change.

Finally, as the end-products of the institution of a social system based on the principles of cooperation and equality, Bellamy saw a vast increase in productive efficiency and physical wealth. In a sense, technocracy "stands Bellamy on his head"; for, in technocratic theory, it is the imperatives of technologically produced abundance

and the coordinating requirements of industrial technology which determine a social reorganization that in turn may be termed co-operative or collective and equalitarian. Thus, to return to Durkheim, Bellamy's scheme is ultimately based on considerations of "charity, fraternity, humanity" while the key to technocracy is its insistence that interdependence, the productive capacity, and operating characteristics of modern industrial technology necessitate the kind of social order it projects.

Appendix B: *Life, Liberty, and Property*— and Technocracy

An extensive study was undertaken in Akron, Ohio, during 1938–39, of attitudes clustering around "property rights" and "human rights." The study was conducted at a time when it was felt the organizational sit-down strikes in the local rubber industry were dramatizing and polarizing the attitudes in question. The report of this investigation by A. W. Jones, published as *Life, Liberty, and Property,* included a chapter devoted to "The Indoctrinated": Socialists, Communists, and Technocrats. The findings are of interest as an independent check upon some of the conclusions presented in this book.

The Akron Section of Technocracy Inc. was reported as having about 200 members, more than the other groups studied. The size of the Section was attributed to "the local leadership initially attracted" and to the "attractive qualities of a native American, utopian set of ideas." In one class of twenty-one advanced Technocracy study course students, somewhat more than half were manual workers, and the remainder were white-collar workers and professionals, except for one small businessman. The Section was led by a local dentist. Jones stated: "While the Technocrats were not perhaps typical Akronites with respect to temperament, they were representative in most other respects."

Two groups of Technocrats were interviewed by Jones. Twelve study course beginners were selected to represent new Technocrats who had not yet been "indoctrinated." The responses of three of these were discarded because their remarks indicated knowledge of technocratic "jargon." The remaining nine scored close to the average of the Akron random sample. Concluded Jones: "Persons drawn in the direction of this type of usually ephemeral, utopian movement are at first no different from other citizens in their attitude toward corporate property."

But the twenty-one advanced study course students presented a different picture: "Indoctrination, however, changes the individual

Technocrat into a type that we found to be unique." On all but two of the hypothetical stories used to test attitudes, the Technocrats decided almost unanimously against corporate rights. While doing so, they commented in technocratic terminology about the failure of the price system to distribute necessities, forcing the workers to take the actions they did. In one story about the ejection of sit-down strikers, the Technocrats showed as great a dislike of the violence as the CIO respondents, but less recrimination against the chief of police who undertook the action. (In the actual scoring system used, the highest "pro" property-rights score was 29.1, obtained by "Business Leaders." The lowest, 2.8, was scored by fourteen Socialists and Communists—who were followed closely by the Technocrats with an average score of 2.9. The lowest "non-indoctrinated" group was the CIO rubber workers' 6.2.)

In preferentially ranking a series of groups for net profit distribution, Technocrats reacted unlike any other group in Akron, placing "People of the United States" in first place, and "Bankers" last. While WPA manual workers and the CIO rubber workers also had placed "Bankers" last in the list of ten, no other group surveyed placed "People of the U.S." higher than sixth, in effect subordinating "the people" to definite class interest groups. (See: Alfred Winslow Jones, *Life, Liberty, and Property* [Philadelphia: J. B. Lippincott Company, 1941], Chapter XXI; Appendix C.)

Notes to Chapters

I. THE NEW WORD OF 1932

1. Allen Raymond, *What Is Technocracy?* (New York: Whittlesey House, McGraw-Hill Book Company, 1933), chap. I.

2. *Age of Roosevelt*, Vol. I: *Crisis of the Old Order* (Boston: Houghton Mifflin Co., 1957), p. 456.

3. Raymond, *What Is Technocracy?*, p. 13; Jay Franklin [John Franklin Carter], *1940* (New York: Viking Press, 1940), p. 22.

4. Raymond, *ibid.*, p. 11; *The New York Times,* January 29, 1933, Section II, p. 1; Wayne W. Parrish, *An Outline of Technocracy* (New York: Farrar and Rinehart, 1933), p. 23.

5. See Smyth's letter to the editor, *The Living Age* (April, 1933), p. 187; correspondence of Howard Scott, reprinted in *The Northwest Technocrat* (July, 1965), p. 19.

6. Parrish, *Outline,* p. 36. About 3,000 commodities were to be studied and charted, but only about 200 were completed at the time the project was discontinued in January, 1933. Such findings of the Energy Survey as were completed apparently have never been fully published. Some of the charts and formulas of industrial growth curves appeared in printed versions of Professor Rautenstrauch's speeches; some of the findings reportedly formed the basis of Bassett Jones's book, *Debt and Production,* published after his resignation from Technocracy. They were informally summarized in Ackerman's "The Technologist Looks at the Depression" and formed the basis of "Technology Smashes the Price System" in *Harper's,* January, 1933.

7. *The New York Times,* June 16, 1932, p. 40.

8. *The New York Times,* August 6, 1932, p. 16.

9. Raymond, *What Is Technocracy?*, pp. 16, 23–24, 25, 29; Parrish *Outline,* p. 5; Franklin, *1940,* pp. 21–22.

10. Raymond, *ibid.*, pp. 24–25.

11. Wayne W. Parrish, "What Is Technocracy?" *The New Outlook* (November, 1932), pp. 13–18.

12. Wayne W. Parrish, "Technocracy's Question," *The New Outlook* (December, 1932), p. 14.

13. Stuart Chase, *Technocracy: An Interpretation* (The John Day Pamphlets, No. 19; New York: John Day Co., 1933), p. 7.

14. Wayne Weishaar, "Howard Scott, Technocracy's Mystery Man," *Technocracy Review* (March, 1933), p. 60.

15. Raymond, *What Is Technocracy?,* pp. 100–1.

16. Henry J. Meyer, "Technocracy: A Social Movement" (unpublished Master's thesis, Department of Sociology, University of Michigan, 1937), p. 99.

17. See the *Reader's Guide to Periodical Literature* and the *Cumulative Book Index* for 1932 and 1933.

18. Ackerman is not listed as author of "The Technologist Looks at the Depression" in any edition of *Introduction to Technocracy.* Attribution of authorship is made by Raymond in *What Is Technocracy?,* pp. 28–29, and by Parrish in *Outline,* p. 22. Raymond's quotations from the manuscript match statements in the published essay.

19. Meyer, "Technocracy: A Social Movement," pp. 113–19, gives a quantitative analysis of the shift in direction of publicity. His data is summarized in Henry Elsner, Jr., "Messianic Scientism: Technocracy, 1919–1960" (unpublished Ph.D. dissertation, Department of Sociology, University of Michigan, 1962), pp. 44–45.

20. See, for example, Henry Hazlitt, "Scrambled Ergs: An Examination of Technocracy," *The Nation,* 136 (February 1, 1933), pp. 112–15, and Thomas Nixon Carver, "The Technocratic Terror," *Current History* (March, 1933), pp. 669–74. Allen Raymond's book (*What Is Technocracy*) also embodies this approach.

21. Meyer, "Technocracy: A Social Movement," pp. 128–34.

22. Raymond, *What Is Technocracy?,* pp. 113–17. Chap. III, "Who Is Howard Scott?" recounts many of the colorful stories told about Scott.

23. Raymond, *ibid.,* pp. 117–18; Parrish, *Outline,* p. 20.

24. Cited by Weishaar, *Technocracy Review* (March, 1933), p. 63; also by Harold Ward in a review of *Debt and Production,* by Bassett Jones, in *Saturday Review of Literature* (August 12, 1933), p. 43.

25. Weishaar, *ibid.,* p. 64.

26. Franklin, *1940,* p. 23; Jay Franklin [John Franklin Carter], *American Messiahs* (New York: Simon and Schuster, 1935), p. 58; interviews with Charles Bonner and Harold Loeb.

27. Interview with Charles Bonner.

28. Franklin, *1940,* p. 24; see also his *American Messiahs,* p. 58.

29. Weishaar, *Technocracy Review* (March, 1933), p. 64; Parrish, "Technocracy's Challenge," *The New Outlook* (January, 1933), p. 68.

30. Interview with Charles Bonner.

31. Allen Gordon, "Scott, the Technocrat, Is Sold Out!" *MacFadden Weekly,* November 24, 1934, p. 4.

32. *Ibid.,* pp. 4, 20.

33. Franklin, *1940,* p. 24.

34. "No Platinum Handcuffs," *The Technocrat* (October, 1947), p. 2.

35. Interview with Charles Bonner.

36. "Substance of an Address Delivered at Hotel Pierre, New York, January 13, 1933," Technocracy Inc., n.d.

37. *The New York Times,* January 24, 1933, p. 1.

38. Franklin, *American Messiahs,* p. 58.

39. *The New York Times,* January 25, 1933, p. 19.

40. Interview with Charles Bonner.

41. Continental Committee on Technocracy, *Bulletin No. 13,* August 1, 1934 (mimeographed).

42. *The New York Times,* January 30, 1933; interviews with Charles Bonner and Harold Loeb.

43. (New York: Robert M. McBride Company, 1933).

44. Chase, *Technocracy,* p. 12.

45. "What About Technocracy?" *The American Magazine* (March, 1933), pp. 124–25.

46. "Machines and the Future," *The Nation* (February 8, 1933), p. 142.

II. ORIGINS AND IDEOLOGY, 1919–32

1. Howard Scott, *The Northwest Technocrat* (July, 1965), p. 9.

2. Joseph Dorfman, *Thorstein Veblen and His America* (New York: Viking Press, 1947), p. 453.

3. *Ibid.,* pp. 453–54, 459.

4. All quotations are from Thorstein Veblen, *The Engineers and the Price System* (New York: Viking Press, 1944).

5. "Farm Labor for the Period of the War," *Essays in Our Changing Order* (New York: Viking Press, 1954), pp. 279–318.

6. "Dementia Praecox," *Essays in Our Changing Order,* p. 435.

7. Dorfman, *Thorstein Veblen,* p. 459.

8. *Ibid.,* p. 460.

9. Scott, *The Nothwest Technocrat* (July, 1965), p. 3.

10. Letter to the author from Stuart Chase, February 19, 1960.

11. Dorfman, *Thorstein Veblen,* p. 462; Chase, *Technocracy,* p. 8.

12. Leon Ardzrooni, "Veblen and Technocracy," *The Living Age,* 344 (March, 1933), p. 40.

13. Guido Marx, as quoted by Dorfman, *Thorstein Veblen,* p. 454.

14. Ardzrooni, *The Living Age,* 344 (March, 1933), p. 40.

15. Parrish, *Outline,* p. 22.

16. Letters to the author from Ralph Chaplin, December 14, 1948, and Ben H. Williams, May 14, 1960.

17. Ralph Chaplin, *Wobbly* (Chicago: University of Chicago Press, 1948), p. 295.

18. *The Northwest Technocrat* (July, 1965), pp. 8, 26.

19. John S. Gambs, *The Decline of the I.W.W.* (New York: Columbia University Press, 1932), pp. 159–60.

20. "We Told You Then," *Technocracy Digest,* Special Supplement (1949), pp. 43–48 (reprint of an interview given to Charles H. Wood, associate editor of the *New York World* on Sunday, February 26, 1921, by Howard Scott).

21. Technocracy's theories as of 1932 are summarized, with varying degrees of emphasis, in several articles published by the group: Frederick Ackerman's "The Technologist Looks at the Depression" (in *Introduction to Technocracy*); "Technology Smashes the Price System," prepared under the supervision of Howard Scott, *Harper's Magazine* (January, 1933); Howard Scott, "Technocracy Speaks," *The Living Age* (December, 1932) (also in the *Introduction*); and printed reports of two similar speeches by Professor Walter Rautenstrauch entitled "Technological Developments and Social Change."

22. [Frederick Ackerman], "The Technologist Looks at the Depression," in Howard Scott *et al., Introduction to Technocracy* (New York: John Day Company, 1933), pp. 16, 29. The following argument is taken from this source.

23. Howard Scott, "Technology Smashes the Price System," *Harper's Magazine,* 166 (January, 1933), p. 140.

24. Walter Rautenstrauch, "Technology and Social Change," an address delivered before the Institute of Arts and Sciences at Columbia University, January 10, 1933.

25. Ackerman, *Introduction to Technocracy,* p. 36.

26. Rautenstrauch, "Technology and Social Change," pp. 2–3.

27. *Ibid.,* pp. 6–7.

28. Scott *et al., Introduction to Technocracy,* p. 42.

29. Ardzrooni, *The Living Age,* 344 (March, 1933), p. 42.

30. Parrish, *Outline,* pp. 31–32.

III. FROM MOVEMENT TO ORGANIZATION

1. *1940,* p. 23. On several occasions, Howard Scott stated that there had been over 300 such societies in existence. In later years both Scott and Harold Loeb recalled that 20–30 would be more accurate.

2. Carey McWilliams, *Southern California Country* (New York: Duell, Sloan and Pearce, 1946), pp. 293–95.

3. *Ibid.,* pp. 294–313; Luther Whiteman and Samuel L. Lewis, *Glory Roads: The Psychological State of California* (New York: Thomas Y. Crowell Company, 1936).

4. Quoted in *The Technocrat* [Chicago] (May–June, 1933), p. 6.

5. Whiteman and Lewis, *Glory Roads,* p. 9.

6. McWilliams, *Southen California Country,* p. 295.
7. Letter from George Vail Steep, March 8, 1933.
8. All quotations from: George Vail Steep, *The Political Expediency of Technocracy* (Los Angeles: Educational Publishing Company, 1933).
9. Letter from Franklin P. Wood, March 7, 1933.
10. American Technocratic League, *A Declaration of Plans and Purposes* (Denver: American Technocratic League, 1933).
11. Letter from George S. Conant, manager of organization, February 20, 1933.
12. *The Technocrat* [Chicago] (May–June, 1933).
13. Meyer, "Technocracy: A Social Movement," pp. 160–64, 191–93.
14. All America Technological Society, *A Plan: The Answer for Technocracy!* (Chicago: AATS, 1933).
15. All America Technological Society, *Manless Machines and Workless Man* (Chicago: AATS, 1933).
16. *The Technocrat* [Chicago] (May–June, 1933), p. 10; Continental Committee on Technocracy, *Bulletin No. 13,* August 1, 1934 (mimeographed).
17. Meyer, "Technocracy: A Social Movement," p. 192; interview with Harold Loeb.
18. Meyer, *ibid.,* pp. 192–93.
19. Letters from Scott and Hubbert to Ralph Chaplin, cited by Meyer, *ibid.,* pp. 194–95.
20. *Time,* July 10, 1933, p. 36.
21. *The New York Times,* June 30, 1933, p. 13.
22. Harold Loeb, "Technocracy—A Forgotten Episode that Changed the World" (unpublished MS), p. 14.
23. Technocracy Inc., *Report on Convention, Chicago, June 1933,* as cited by Meyer, "Technocracy: A Social Movement," pp. 198–99.
24. Continental Committee on Technocracy, *Bulletin No. 13,* August 1, 1934 (mimeographed).
25. Loeb, "Technocracy—A Forgotten Episode," pp. 14–15.
26. *Ibid.,* p. 15.

IV. THE PLAN OF PLENTY AND THE NSPPC

1. Interview with Harold Loeb.
2. Continental Committee on Technocracy, *The Plan of Plenty* (1934). All quotations are from the 1934 edition which is identical to that of 1933 except for the deletion of the noun "Technocracy" in all passages where it had previously occurred.
3. Continental Committee on Technocracy, *Bulletin No. 9* (mimeographed).

4. Continental Committee on Technocracy, *Bulletin No. 7,* "Plan of Plenty and Socialism Contrasted," October 27, 1933; Stuart Chase, *The Age of Distribution* (revised reprint from *The Nation,* Continental Committee on Technocracy, n.d.); Harold Loeb, "Capacity versus Rapacity," *Common Sense* (December, 1934); Felix Frazer, *Advice to the Left* (Continental Committee, n.d.); Felix Frazer, "Economy of American Progress," *The People's Money* (July, 1936).

5. Harold Loeb, *The Way It Was* (New York: Criterion Books, 1959), pp. 30, 44.

6. Loeb, "Technocracy—A Forgotten Episode"; Harold Loeb *Life in a Technocracy* (New York: Viking Press, 1933); Harold Loeb, *Full Production Without War* (Princeton: Princeton University Press, 1946), Preface.

7. Letter from Frazer to the writer; U.S. Congress, House, Committee on Patents, *Hearings, Pooling of Patents,* 74th Cong., 1st Sess., 1935, Part I, pp. 927–28; *Common Sense* (October, 1934), p. 8.

8. Letter from Felix Frazer to the author.

9. *Who's Who in America* (1958–59 edition); Charles Bonner, letter to and interview with the author.

10. "What the Publishers' Auxiliary Says About You," Western Newspaper Union, n.d.; correspondence between E. L. Pratt and Harold Loeb.

11. Interview with Loeb. Also, for Walter Polakov see "Notes on Contributors," *Recovery Through Revolution* (New York: Covici Friede, 1933), pp. 501–2.

12. Interview with Harold Loeb.

13. Continental Committee on Technocracy, *Bulletin No. 11,* April 14, 1934 (mimeographed).

14. Interview with Harold Loeb.

15. Quotations are from Harold Loeb and Associates, *The Chart of Plenty* (New York: Viking Press, 1935), pp. 5–6, 11, 18.

16. Writing in 1946, Loeb recognized the difficulty of making the decision between "providable" and "scarce" goods. Ultimately, the division would have to be "imposed from above." However, "this objection, though serious, would not be conclusive, since a consensus exists in regard to the kinds and quantity of most basic goods requisite for the countenanced living standard—a consensus which could be used for making that division." But by this time Loeb had become convinced that "the question became academic when further study showed that full production and a market economy were *not* incompatible." See his note on p. 215 of *Full Production Without War.*

17. Loeb and Associates, *The Chart of Plenty,* p. 156. The full official report of the survey was published as *The National Survey of Potential Product Capacity* (New York City Housing Authority, 1935).

18. Charles A. Beard, review of *The Chart of Plenty* by Harold Loeb and Associates, *The New Republic*, 82 (March 20, 1935), p. 164.

19. Letter from Harold Loeb, June 18, 1936.

20. Letter from H. R. Hadfield, March 20, 1934.

21. Letter from E. L. Pratt to Harold Loeb, June 14, 1935.

22. Correspondence between E. L. Pratt and Harold Loeb, 1935.

23. Letter from Harold Loeb to Charles Bonner, October 13, 1935.

24. Letters from E. L. Pratt to Harold Loeb, October 17 and December 19, 1935.

25. Letter from Charles Bonner to Harold Loeb, October 9, 1935.

26. Letters from Charles Bonner to Harold Loeb, December 26, 1935, and February 11, 1936.

27. Letter from Charles Bonner to Harold Loeb, February 4, 1936.

28. *Western States Technocrat,* February 26, 1935, p. 10. Data on the Washington State Division of the CCT is from copies of the *Western States Technocrat,* correspondence between division leaders and Harold Loeb, and Florence Mayne Merrick, "Technocracy in the State of Washington" (unpublished MS). See also Alfred M. Bingham, *Insurgent America* (New York: W. W. Norton and Company, 1938).

29. Quotations and information on the history of technocracy in Washington from Merrick's unpublished manuscript.

30. Interview with Harold Loeb.

31. Merrick, unpublished MS, pp. 15, 16, 18.

32. *Western States Technocrat,* March 5, 1935, p. 7.

33. Letter from Harold Loeb to E. L. Pratt, July 2, 1936.

34. Letter from E. L. Pratt to Harold Loeb, March 23, 1936.

35. Correspondence among Harold Loeb, Florence Mayne, E. L. Pratt, and Charles Bonner, 1936.

36. Letters from E. L. Pratt to Harold Loeb and Charles Bonner, May–September, 1936.

37. Interview with Harold Loeb; correspondence in Loeb files.

38. Letter from Florence Mayne to Harold Loeb, November 15, 1937.

39. Loeb, "Technocracy—A Forgotten Episode"; Loeb, interview with the author.

40. Letter from Paul B. Corr, January 14, 1935; letter from Howard Scott, December 19, 1934; Technocracy Inc. mimeographed release, March 1, 1935; *Technocracy,* A–7 (May, 1936), p. 22.

41. Letter from Paul B. Corr to Technocracy Inc., September 19, 1938 (carbon).

42. Letter from Paul B. Corr, December 1, 1938.

43. Loeb, "Technocracy—A Forgotten Episode," p. 28.

44. Continental Committee, *Bulletin No. 1,* Second Series, December 15, 1938 (mimeographed).

V. THE TECHNOLOGICAL ARMY OF THE NEW AMERICA

1. Technocracy Inc., *The Itinerary for Howard Scott National Lecture Tour as of February 23, 1934* (mimeographed).

2. *Technocracy*, A–1 (May, 1935), p. 2; *The Technocrat* (November, 1948), p. 3.

3. Whiteman and Lewis, *Glory Roads*, Chap. II; Section directories in various issues of *The Technocrat*, 1938–48; letter from Howard Scott, December 19, 1934.

4. Letter from E. L. Pratt to Harold Loeb, March 23, 1936.

5. Whiteman and Lewis, *Glory Roads*, Chaps. II–III; *Technocracy*, A–1 (May, 1935), pp. 2, 14; A–8 (August, 1936), pp. 21–22.

6. Mimeographed releases and correspondence from National Headquarters, Technocracy Inc., 1934.

7. *Technocracy*, A–6 (March, 1936), p. 18; A–5 (December, 1935), pp. 6–12.

8. *Ibid.*, A–7 (May, 1936), p. 22; A–8 (August, 1936), pp. 20–22.

9. *Ibid.*, A–11 (April, 1938), p. 22; A–14 (October, 1938), p. 12.

10. *The Northern Technocrat* (April, 1938), pp. 16–17; *8141* (October, 1937), p. 15; (July, 1938), p. 6.

11. *Technocracy* A–14 (October, 1938), p. 12.

12. As quoted in *ibid.*, A–15 (December, 1938), p. 20.

13. *The Technocrat* (December, 1938), pp. 3–5; (January, 1939), pp. 15–16.

14. As quoted by *ibid.*, (December, 1938), p. 4.

15. *8141* (July, 1938), p. 5.

16. *Technocracy*, A–13 (August, 1938), p. 21.

17. For example, *The Technocrat* (November, 1939), p. 23.

18. Technocracy Inc., *March of Events Deals Technocracy Aces—All Aces*, General Mailing No. 30a, December 31, 1939; *General Organizational Activity*, General Mailing No. 41a, November 30, 1940 (mimeographed).

19. Technocracy Inc., *March of Events Deals Technocracy Aces—All Aces*, General Mailing No. 78a, December 31, 1943 (mimeographed).

20. For a fuller discussion of estimated membership and a geographical listing of sections, see Elsner, "Messianic Scientism: Technocracy 1919–1960," pp. 128–31.

21. Loeb, "Technocracy—A Forgotten Episode"; interviews with Harold Loeb and Charles Bonner.

22. Howard Scott, "America Prepares for a Turn in the Road," *Technocracy*, A–1 (May, 1935), p. 17; Howard Scott, "America—Let's Go!" *Technocracy*, A–3 (August, 1935), p. 7; Howard Scott, "The Evolution of Statesmanship," *Technocracy*, A–4 (October, 1935), p. 8; quotation from the *Vancouver Sun* cited in *The Technocrat* (December, 1938), p.

5; Howard Scott, "A Rendezvous with Destiny," *Technocracy*, A–8 (August, 1936), p. 5.

23. *Technocracy*, A–1 (May, 1935), pp. 3, 4.

24. "Notes on Organization," *ibid.*, A–4 (October, 1935), pp. 16–17.

25. Harold Fezer, "Report on Howard Scott's Central States Tour," *ibid.*, A–8 (August, 1936), p. 20.

26. William Knight, "The William Knight Letter," *Technocracy Digest*, Special Supplement (1949), pp. 32–33.

27. Harold Fezer, "Report on the Howard Scott Tour," *Technocracy*, A–5 (December, 1935), p. 6.

28. *The Technocrat* (January 1, 1935), p. 8.

29. *Technocracy*, A–1 (May, 1935), pp. 14–15.

30. "The Technet, Technocracy's Short Wave Radio Network," *8141* (April, 1941), pp. 12–13.

31. Similar, independent statements of this alleged change in Technocracy Inc.'s social base were made by Ben H. Williams and Theodore Longabaugh in unpublished manuscripts. Interview and questionnaire data seem to support the conclusion. See Elsner, "Messianic Scientism: Technocracy, 1919–1960," Chap. XI.

32. *Technocracy*, A–15 (December, 1938), p. 21; "Highlights of the Howard Scott Tour," *8141* (July, 1938), p. 6; *Technocracy*, A–11 (April, 1938), p. 22.

33. William Knight, *Technocracy Digest*, Special Supplement (1949), pp. 33–34.

34. *The Technocrat* (November, 1948), p. 8.

35. Technocracy Inc., *Operating Instructions No. 9*, "Regulation Dress," September, 1939 (mimeographed).

36. *Technocracy*, A–15 (December, 1938), pp. 20–21; *The Technocrat* (December, 1938), p. 4.

37. "What Some Technocrats Are Doing," *8141* (November, 1940), p. 17.

38. "Operations: News of the Organization," *The Technocrat* (January, 1942), pp. 15–18.

39. "Editorial," *Technocracy*, A–13 (August, 1938), pp. 4–5.

VI. TECHNOCRACY INC.: STRUCTURE AND OPERATIONS

1. All quotes and information are from: Technocracy Inc., *Operating Instructions No. 4*, "Guide for Speakers," 1942 Revision (mimeographed); and *Operating Instructions No. 5*, "Conducting Public Meetings," 1942 revision (mimeographed).

2. Technocracy Inc., *By-Laws and General Regulations* (New York: 1947), p. 12.

3. Technocracy Inc., *Operating Instructions No. 3,* "Reference Sources and Study Classes," 1942 revision (mimeographed).

4. Technocracy Inc., *Operating Instructions No. 8,* "Guide for Editors," 1942 revision (mimeographed).

5. Technocracy Inc., *Division of Research: General Notice,* January 25, 1935 (mimeographed).

6. *The Technocrat* (May–June, 1937), p. 3.

7. The Williams and Longabaugh manuscripts attribute authorship of the study course to Hubbert, as do many other former Technocrats interviewed in the course of this study.

8. New York *Herald Tribune,* December 29, 1944, p. 10.

9. Ben H. Williams, unpublished MS.

10. The letter is quoted by Meyer, "Technocracy; A Social Movement," pp. 202–3.

11. *Who's Who in America* (1958–59 ed.), p. 1,353; *8141* (July, 1941), cover and p. 2.

12. Williams unpublished MS.

13. Correspondence between the writer and Mrs. A. W. Atwater, and the author and Mrs. Mary Kaszelkus.

14. Williams unpublished MS; correspondence between the writer and R. B. Langan.

15. See Hans H. Gerth, "The Nazi Party: Its Leadership and Composition," *The American Journal of Sociology,* XLV (1944), pp. 517–41 for a discussion of the charismatic leader and the methods of recruitment, specification of duties, etc., of his inner circle in the Nazi Party organization.

VII. TECHNOCRACY INC.: THEORY, VALUES, IDEOLOGY

1. All references to the *Technocracy Study Course* are based on the fifth printing, October, 1947, of the fifth edition (New York: Technocracy Inc.)

2. For the development of this orientation see: Leslie White, "The Energy Theory of Cultural Development" in Morton H. Fried, ed., *Readings in Anthropology* (New York: Thomas Y. Crowell, 1959), II, pp. 139–46.

3. Norwin K. Johnson, "Liberal Farewell," *Technocracy,* A–11 (April, 1938), p. 18.

4. Typical of recent writings in this area, Seymour M. Lipset's *Political Man* (Garden City, New York: Doubleday and Company, 1960) applies the general notion to various movements in different countries; Leo Lowenthal and Norbert Guterman's *Prophets of Deceit* (New York: Harper and Brothers, 1949) discusses the themes of anti-Semitic agitators

on the radical right; Richard Hofstadter's *The Age of Reform* (New York: Vintage Books, 1960) contains the historical application to the American populist movement itself.

5. "The Dementia of Democracy," *Technocracy,* A–14 (October, 1938), pp. 3–6, 21.

6. *Technocracy,* A–17 (October, 1939), pp. 20–21.

7. *Technocracy Study Course,* p. 205.

8. *Technocracy,* A–16 (July, 1939), p. 21.

9. *The Northwest Technocrat* (October, 1959), p. 7.

VIII. NATIONAL SERVICE FROM ALL, PROFITS TO NONE

1. For example, William Knight, "On the Road to Fascism," *Technocracy,* A–2 (July, 1935), p. 5; Lewis Montgomery, "Organizing for the New America," *Technocracy,* A–15 (December, 1938), pp. 16–19.

2. All quotations from *Technocracy,* A–13 (August, 1938), pp. 3–5.

3. All quotations from *ibid.,* A–17 (October, 1939), pp. 3–11.

4. "America's Opportunity," *ibid.,* A–18 (December, 1939), pp. 3–4.

5. See Chap. VI above.

6. "Technocracy Mobilizes for Peace!" *Technocracy,* A–17 (October, 1939), pp. 12–13.

7. Technocracy Inc., *Ban on Technocracy Inc. in Canada Lifted!,* General Mailing No 76a, October 31, 1943 (mimeographed).

8. All quotations from: Howard Scott, "America—Now and Forever," *Technocracy,* A–19 (July, 1940), pp. 3–15.

9. See the official pamphlet: *Total Conscription: Your Questions Answered* (New York: Technocracy Inc., 1942).

10. Scott, *Technocracy,* A–19 (July, 1940), pp. 12, 14.

11. Howard Scott, "Another Milestone on Our Way," *ibid.,* A–1 (May, 1935), p. 4.

12. Raymond, *What Is Technocracy!,* pp. 105–6.

13. For example, compare inside back covers of November–December, 1946, and January–February, 1947, issues of the *Great Lakes Technocrat.*

14. Letter to R. B. Langan from CHQ, Technocracy Inc., November 4, 1942.

15. "America Prepares for a Turn in the Road," *Technocracy,* A–1 (May, 1935), p. 16.

16. Daniel Bell, "Technocracy Rides Again in New High-Powered Campaign," *The New Leader,* March 14, 1942; Elmore Philpott, "Public Dubious Until Technocracy Comes Clean," *Seattle Daily Times,* July 8, 1947; New York *Herald Tribune,* January 13, 1942.

17. Technocracy Inc., General Mailing No. 44, February 28, 1941 (mimeographed).

18. Technocracy Inc., General Mailing No. 46e, April 30, 1941 (mimeographed).

19. Specifications for the Flying Wing appear on page 21 of *Technocracy,* A–21 (November, 1941), although the proposal seems to have been made public several months earlier. A leaflet describing the proposed Flying Wing was widely distributed during the war years.

20. Howard Scott, *The Sellout of the Ages* (New York: Technocracy Inc., 1941) (pamphlet reprint of an article originally appearing in *Technocracy,* A–21, November, 1941).

21. "America at War," *8141* (January, 1942), p. 3; Technocracy Inc., General Mailing No. 54a, December 24, 1941 (mimeographed).

22. Technocracy Inc., General Mailing No. 54b, December 31, 1941 (mimeographed). The statement was reprinted in the January, 1942, issue of Technocracy Inc.'s magazines and in advertisements in the public press.

23. Technocracy Inc., General Mailing No. 55a, January 31, 1942 (mimeographed).

24. *The New Leader,* March 14 and 21, 1942.

25. *New York Post,* March 17, 18, 1942; New York *Herald-Tribune,* March 18, 1942; *New York Sun,* April 21, 1942; *St. Louis Post Dispatch,* April 28, May 24, 1942; *The Nation,* April 4, 1942; *Newsweek,* March 23, 1942; *New Yorker,* March 28, 1942.

26. Technocracy Inc., General Mailing No. 57a, March 31, 1942 (mimeographed).

27. *Ibid.*

28. *Ibid.*

29. This assertion is based on extensive personal interviews and research. Former field magazine editors, organizers, Section directors, and other officers with many years of experience in the movement—and who have been out of it for years, usually because of expulsion by Howard Scott—who as part of their duties would have known about any outside funds or subsidies, are unanimous in the conclusion that such financial aid did not exist. The ad campaign may have been investigated by the Bureau of Internal Revenue, for a March 31, 1942, Technocracy Inc. release asks all Sections and groups to report contributors and amounts given, statements of amounts expended, and publicity funds still on hand. It was stated that this information was needed because the bureau was issuing rulings on the income reporting of nonprofit organizations.

30. Letter to the author from R. B. Langan.

31. Technocracy Inc., General Mailing No. 57a, March 31, 1942 (mimeographed).

32. Techocracy Inc., General Mailing No. 58b, April 30, 1942 (mimeographed).

33. *Total Conscription: Your Questions Answered* (New York: Technocracy Inc., 1942).

34. Technocracy Inc., General Mailing No. 61f, July 31, 1942 (mimeographed).

35. Technocracy Inc., General Mailing No. 78a, December 31, 1943 (mimeographed).

IX. TREACHERY, CONSPIRACY, AND SABOTAGE

1. Technocracy Inc., General Mailing No. 76c, October 31, 1943 (mimeographed).

2. *Ibid.*

3. Technocracy Inc., General Mailing No. 79a, January 1, 1944 (mimeographed). Underscoring in original.

4. Technocracy Inc., General Mailing No. 82a, April 30, 1944 (mimeographed).

5. Technocracy Inc., General Mailing No. 84a, July 31, 1944 (mimeographed).

6. Technocracy Inc., General Mailing No. 85a, August 31, 1944 (mimeographed).

7. *The Technocrat* (June, 1948), pp. 3–6.

8. *Ibid.* (September, 1947), (May, 1948).

9. "When is News not News?" *ibid.* (January, 1948), pp. 6-7.

10. "Technocracy Sound Fleet Assists in Fraser River Flood," *ibid.* (August, 1948), pp. 14–15; "We Have to Show!" *ibid.* (December, 1948), p. 2.

11. *Ibid* (December, 1948), p. 17.

12. Interview and mail questionnaire responses of former Technocrats.

13. Quoted in *Eastern Area Digest,* Section 7943–1, Toronto, Ontario (October, 1948), p. 20 (mimeographed).

14. For the dissidents' side see *Great Lakes Technocrat* (March-April, 1949); *Eastern Area Digest* (October, 1948); *Program of the Chicago Conference for the Expansion of Technocracy Inc., Held September 11, at Chicago Illinois;* and various mimeographed releases. For the loyalist side, see *The Technocrat* (November, 1948); and Technocracy Inc., *Preliminary Report of Treachery, Conspiracy and Sabotage,* September 28, 1948 (mimeographed). For the legal decision see: *The New York Law Journal,* "By Mr. Justice Hecht: Matter of Briggs (Technocracy Inc.)," December 30, 1948.

15. Technocracy Inc., "My Support for Technocracy Inc.," February 5, 1949 (triplicate mimeographed form).

16. *The Technocrat* (March 1959), pp. 24–25; (March, 1960), cover and p. 14; *The Northwest Technocrat* (October, 1960), cover and pp. 18–19.

17. The Philadelphia *Sunday Bulletin*, October 7, 1962, p. 16.

18. Wilton Ivie, "Defining Our Objectives," *The Northwest Technocrat* (January, 1960), p. 7.

19. "Miscellaneous on Civil Rights," *Technocratic Trendevents* (August, 1963), p. 2 (mimeographed).

20. "Reassertion of An Old Ambition," *The Northwest Technocrat* (October, 1960), p. 2.

21. "New Fascist Regime for Cuba," *The Technocrat* (March, 1959), p. 2; "No Time for Hesitation," *The Technocrat* (March, 1960), p. 3.

22. Wilton Ivie, "Unfreedom of Press in America," *ibid.* (June, 1959), p. 4.

23. "Mikoyan Takes 'Holiday' in U.S.," *ibid.* (March, 1959), p. 2.

24. Wilton Ivie, "Prelude to War," *The Northwest Technocrat* (July, 1960), pp. 10–11.

25. Wilton Ivie, "If You Can't Lick Them . . .," *ibid.* (January, 1959), p. 5.

26. *Ibid.*, p. 9

27. *The Technocrat* (March, 1960), p. 8. Of the articles cited in the preceding references, Ivie's "If You Can't Lick Them . . ." presents the general foreign-policy position of Technocracy Inc. for this period, and "No Time for Hesitation" is a good summary of the organization's views on underdeveloped countries, the Chinese model, and the revolutionary process in general. References to Catholicism are to be found in many articles; for one devoted specifically to the topic see CHQ's "Catholic Fascism in World Affairs," as reprinted in *The Northwest Technocrat* (October, 1960), pp. 20–25.

28. "Synopsis of the U.S.N.A.," *The New Analyst* (June, 1960), Technodemocracy, Chicago, Illinois (mimeographed). Issues 34 through 45 of *The New Analyst* contain the social design in detail.

29. *Socialism-Communism-Fascism, and Technodemocracy.* Report of Chairman of Technodemocracy to Its Sixth Annual Meeting, Technodemocracy, Chicago, Illinois, September 20, 1960 (mimeographed).

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1. Oscar T. Barck and Nelson M. Blake, *Since 1900* (New York: Macmillan Company, 1959), p. 451.

2. Irving Howe and Lewis Coser, *The American Communist Party* (Boston: Beacon Press, 1957); Arthur M. Schlesinger, Jr., *The Politics of Upheaval* (Boston: Houghton Mifflin Co. 1960), chaps. 12, 30.

3. Loeb, *Full Production,* p. 271; Schlesinger, *Politics of Upheaval,* p. 550.

4. In a recent work, Neil Smelser has convincingly argued that it is the total summation of factors that is crucial rather than an assumed temporal sequence which is not always found. See his *Theory of Collective Behavior* (New York: The Free Press of Glencoe, 1963).

5. Elsner, "Messianic Scientism: Technocracy, 1919–1960," chap. XI.

6. *Ibid.*

7. *Technocracy Digest,* Vol. 3, No. 4 (n.d.), p. 2.

8. *Ibid.,* p. 1.

9. Wilton Ivie, "No Time for Hesitation," *The Technocrat* (March, 1960), p. 8.

10. Elsner, "Messianic Scientism: Technocracy, 1919–1960," chap. XI, quotes former Technocrats' perceptions of their organization's strengths, weaknesses, and social function.

11. *Ibid.,* pp. 318–20.

12. See William Kornhauser, *The Politics of Mass Society* (Glencoe, Ill.: The Free Press, 1959).

13. Carl J. Friedrich and Zbigniew Brzezinski, *Totalitarian Dictatorship and Autocracy* (Cambridge: Harvard University Press, 1956), pp. 25–26.

14. *Ibid.,* p 88.

15. *Ibid.,* p. 87.

16. Kornhauser, *Politics of Mass Society,* p. 49.

17. Lipset, *Political Man,* pp. 131–76.

18. Elsner, "Messianic Scientism: Technocracy, 1919–1960," chap. XI.

19. *Ibid.*

20. See his "Working Class Authoritarianism," pp. 97–130 in *Political Man.*

21. An attempt to use standard authoritarian attitude scales on some Technocrats yielded inconclusive results. See Elsner, "Messianic Scientism: Technocracy, 1919–1960," chap. XI.

22. *Socialism and Saint-Simon* (Yellow Springs, Ohio: Antioch Press, 1958), pp. 52–53, 56.

23. See his "Politics: Who Gets What, When, How," in *The Political Writings of Harold Lasswell* (Glencoe, Ill.: The Free Press, 1951), and, with Abraham Kaplan, *Power and Society* (New Haven: Yale University Press, 1950).

24. (Bloomington: Indiana University Press, 1960).

25. These and other criticisms are discussed in Hans H. Gerth and C. Wright Mills, "A Marx for the Managers," in Robert K. Merton *et al.* (eds.), *Reader in Bureacracy* (Glencoe, Ill.: The Free Press, 1952), pp. 165–78.

26. Burnham, *The Managerial Revolution,* pp. 202–3.

27. Lasswell, *Politics,* pp. 376–77.

28. Burnham, *The Managerial Revolution,* p. 194; see also Lasswell, *Politics,* p. 377.

29. (New York: Random House, 1960), p. 218.

30. Peter Irons, "The Cybernation Revolution," *The Progressive* (February, 1965), pp. 18–21. For a succinct critique of the Ad Hoc Committee's views and similar neo-technocratic economics, see: Daniel Bell, "The Bogey of Automation," *The New York Review of Books* (August 26, 1965), pp. 23–25. In turn, a rebuttal is offered in Ben Seligman, "The Spectre of Automation and Consensus Complacency," *Dissent* (May–June, 1966), pp. 243–64.

31. *The Northwest Technocrat* (July, 1964), p. 7.

APPENDIX A: EDWARD BELLAMY AND TECHNOCRACY

1. As quoted in Sylvia E. Bowman, *The Year 2000: A Critical Biography of Edward Bellamy* (New York: Bookman Associates, 1958), p. 114. This book, together with Arthur E. Morgan's *Edward Bellamy* (New York: Colombia University Press, 1944) and the Modern Library edition of *Looking Backward* have been used as sources for Bellamy material.

2. Bowman, *The Year 2000,* p. 106.

3. Morgan, *Edward Bellamy,* p. 335.

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