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Journal of Contemporary History 1970 5: 27

DOI: 10.1177/002200947000500202

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Between Taylorism and Technocracy: European ideologies and the vision of industrial productivity in the 1920s

Charles S. Maier

As Antonio Gramsci recognized in his prison reflections from the end of the 1920s, the impact of United States technology offered a valuable key for understanding recent European development: 'The European reaction to Americanism . . . must be examined attentively. Analysis of it will provide more than one element necessary for understanding the present situation of a series of states of the old continent and the political events of the post-war period.'¹

By Americanism Gramsci meant a whole complex of approaches to industrial production and labour relationships. 'Fordism' embodied one aspect, 'Taylorism' another; yet as a German commentator pointed out in 1924, these appeared merely as the most typical contribution to America's prodigious economic achievement as a whole.² By the 1920s, scientific management – which extended the original approaches of Taylorism into all areas of labour productivity, technological efficiency, and even corporate organization – evoked enthusiasm among European emulators as 'a characteristic feature of American civilization'.³

¹ Antonio Gramsci, *Note sul Machiavelli, sulla politica, e sullo stato moderno* (Turin, 1949), 312.

² F. von Gottl-Ottlilienfeld, *Fordismus? Paraphrasen über das Verhältnis von Wirtschaft und technischer Vernunft bei Henry Ford und Frederick W. Taylor* (Jena, 1924), 6.

³ League of Nations, International Labour Office, *International Economic Conference Geneva, May 4, 1927, Documentation: Scientific Management in*

As Gramsci sensed, this vogue of so-called Americanism testified to important transformations within Europe; it reflected most directly the powerful demand for technocratic expertise that had been especially encouraged by the first world war. But the war aside, European society could easily press into service doctrines of technological efficiency: structural changes in the twentieth-century economy awoke a concern for 'rationalization'; artistic and architectural innovation revealed a fascination with the social possibilities of mechanization. Taylorism and Fordism provide a good starting point for analysing what was at stake. They evoked a European resonance less for their strictly technical features than for their social and political implications. The engineer, who was central to the new industrial gospel, appeared not so much a master of machines as a potential manipulator of all industrial relationships. The cultural and political appeal, rather than actual factory applications, forms in fact the focus of this essay. Because of the ideological implications, a survey of scientific management, and the related concern for economic and social planning, open new perspectives on the period between the first world war and the Great Depression.

Whereas in America the commitment to technological efficiency and productivity pervaded almost the entire culture, in Europe it appeared more selectively. The central question is what determined that pattern of receptivity – at least that receptivity as measured by public discussion and government sponsorship. It is noteworthy that the ideological breakdown between the enthusiasts and the indifferent or hostile, did not follow any simple left-to-right alignment. Generally during the early post-war years technocratic or engineering models of social management appealed to the newer, more syncretic, and sometimes more extreme currents of European politics. Italian national syndicalists and fascists, German 'revolutionary conservatives' and 'conservative socialists', as well as the so-called left liberals who sought to mediate between bourgeois and social democracy, and finally the Soviet leaders, proved most receptive. Later in the decade, as the American vision of productivity was divested of its more utopian implications, it came to serve a useful function for business conservatives. Be-

Europe (Geneva, 1926), 7–8. This report is an abbreviated version of Paul Devinat, *Scientific Management in Europe*, ILO, Studies and Reports, Series B, No. 17 (Geneva, 1927).

tween the original enthusiasm for Taylorite teachings and the later *éclat* of Fordism lay an important evolution in the ideological thrust of Americanist doctrines. In general, however, all the variants enjoyed most appeal where representative government was deemed to be working badly. Ironically enough, American productivity contributed to the critical attitude towards parliamentary liberalism.

What the Americanist vision seemed to promise through its brash teachings of productivity, expertise, and optimalization was an escape from having to accept class confrontation and social division. Albeit for very different reasons, all the enthusiasts of scientific management and technological overhaul were seeking to deny the necessary existence of the pre-war model of ideological conflict and to validate a new image of class relationships.

The promise of engineering in America

Before 1914 Taylorism had already been picked up in Europe as one of the most provocative aspects of America's formidable economic expansion, although even in the United States it was rarely applied in full. Still, its career and intellectual elaboration reveal the dynamic inherent in the idea of technology as social arbiter. Following its influence from this point of view makes clear the stakes that any recourse to the technician or 'producer' would entail, in Europe as well as America.

Throughout the first decade of the new century Frederick W. Taylor (1856–1915) popularized a process of labour discipline and workshop organization based upon supposedly scientific studies of human efficiency and incentive systems. Preoccupied with the problem of 'soldiering' or labour slowdowns, Taylor timed basic work actions, developed programmed task instruction cards for employees, recommended factory planning departments, and devised wage scales based on piece work, such that the productive worker shared in the expansion of output, but would fall below a subsistence wage and be forced to quit were he to prove inefficient. Taylor's system was propagated by his zealous disciples and similar versions were advanced by eager competitors, while it became fixed in the public eye through a series of controversies concerning its benefits and its alleged inhumanity.⁴

⁴ See Samuel Haber, *Efficiency and Uplift, Scientific Management in the Progressive Era, 1890–1920* (Chicago, 1964); M.J. Nadworny, *Scientific Manage-*

Certainly there had been notions of rationalized management practice before. What was novel about Taylorism was the application of the supposedly machine-oriented discipline of engineering to labour relations. How, in fact, had engineering intruded into this sphere? The American Society of Mechanical Engineers, founded in 1880, represented a profession significantly different in origin from European counterparts such as the *polytechniciens* of France. In France and Germany engineering schools had originally been sponsored by royal, revolutionary, or Bonapartist regimes concerned with national wealth and power. In England and America the mechanical engineering profession came of age with the surge of industrialization, and its early practitioners emerged not from the technical institute but from the factory itself. By the late nineteenth century a heightened professionalism was drawing many of America's engineers from the old, ethnically and socially established middle classes – men who perhaps did not wish to give themselves up entirely to business pursuits, who insisted on the credentials of expertise as well as the sanctification of money, and who retained a marked distrust of labour's collective ambitions. For the professionally committed, engineering suggested a self-image of impartial technical arbitration, a dedication to scientific standards and objectivity above the clash of interests in the factory.⁵

As the application of science to the world of economic constraints, engineering logically had to work with the concept of efficiency: the ratio of output to input and benefits to cost. Optimality – although the term was not used in early Taylorism itself – became the implicit key notion behind the application of

ment and the Unions, 1900–1932 (Cambridge, Mass., 1955), esp. 1–42; F.W. Taylor, *Scientific Management, Comprising Shop Management, The Principles of Scientific Management, Testimony before the Special House Committee* (New York, 1911); C.B. Thompson, ed., *Scientific Management. A Collection of the More Significant Articles Describing the Taylor System of Management* (Cambridge, Mass., 1914). On Taylor himself: F.B. Copley, *Frederick Winslow Taylor* (New York, 1923). For the controversies over application: H.G.J. Aitken, *Taylorism at Watertown Arsenal* (Cambridge, Mass., 1960).

⁵ Haber, *Efficiency and Uplift*, 9–17; Monte Calvert, *The Mechanical Engineer in America, 1830–1910* (Baltimore, 1967); on English and European training: W.H.G. Armytage, *A Social History of Engineering* (London, 1961), esp. 108 ff., 149–52, 185 ff.; J.P. Callot, *Histoire de l'École Polytechnique* (Paris, 1958); for a note on French origins, Georges Sorel, *Les illusions du progrès* (3rd ed., Paris, 1921), 357–8. Cf. also H. Klages and G. Hartleder, 'Gesellschaft und soziales Selbstverständnis des Ingenieurs', *Schmollers Jahrbuch*, 1965.

engineering to industrial relations. Worker and employer had no scope for quarrelling about wages or hours or conditions of labour when both parties were yoked to the arbitration of science. 'What we need', wrote Henry L. Gantt, one of Taylor's most engaging followers, 'is not more laws, but more facts, and the whole question will solve itself'.⁶

In practice, not surprisingly, the supposedly impartial findings of science tended to confirm the approach of management, not labour. Collective bargaining had little place in a world of technological imperatives and piece-work wages. Management alone, Taylor insisted, could call upon the directing intelligence and alone set the norms of efficient production.⁷ Nonetheless, in theory there could be no arbitrary decisions. And if Taylor himself usually emphasized the need to eliminate worker 'soldiering', reformist Taylorites were later to stress how conservative entrepreneurial practice must change. The important thing was that both findings still carried a commitment to transcend conflicts of interest. To borrow the language developed for game theory, Taylorism promised an escape from zero-sum conflict, in which the gain of one party could be extracted only from the equal sacrifice of the other.

In addition to the optimal allocation of given production and income, the expansion of output through improved workshop organization was also to benefit both sides. Increased production would be shared with labour as well as with investors, so that there need be no bitter scrapping over any given level of return. Efficiency, optimality, enhanced productivity and expanded output thus formed a coherent system. It both demanded and promised much. As Taylor told the House of Representatives, the essence of scientific management was not merely piece work, task cards, or time studies, but 'a complete mental revolution on both sides', such that old contentions were eradicated:

⁶ Cited in L.P. Alford, *Henry Laurence Gantt: Leader in Industry* (New York, 1934), 262.

⁷ Taylor, *Testimony before the Special House Committee*, 235; cf. also Nadworny, *Scientific Management and the Unions*, 9. The implicit assumptions in favour of the employer are also discussed in Reinhard Bendix, *Work and Authority in Industry* (New York, 1963), 276–87. Taylor, moreover, did not believe pay should rise in exactly the same proportion as output; smaller increments would force the worker to remain ambitious. See *Shop Management*, 29.

The great revolution that takes place in the mental attitude of the two parties under scientific management is that both sides take their eyes off of the division of the surplus as the all-important matter, and together turn their attention toward increasing the size of the surplus until this surplus becomes so large . . . that there is ample room for a large increase in wages for the workman and an equally large increase in profits for the manufacturer.⁸

In short, what Taylorism offered – certainly within the plant, and ultimately, according to its author, in all spheres of government and social life⁹ – was the elimination of scarcity and constraint. It therefore implied a revolution in the nature of authority: the heralded utopian change from power over men to the administration of things. Such an evolution logically removed the basis for class formation as conceived by sociology.¹⁰ Ostensibly Taylor's factory could become the nucleic building block of a post-bourgeois world, or at least a secure managerial one.

For Americans of the Progressive era this sort of doctrine had great appeal. Social efficiency in the years before the first world war became a shibboleth for reform as well as for productivity. It showed the interests of employers and employees to coincide, in the words of Taylor and then of the Gilbreths – Taylor's rivals who relied on motion-picture analysis of basic work-movements anagrammatically christened Therbligs – with 'the one best way to do work'.¹¹ A publicist of related views, Harrington Emerson, organized the Efficiency Society, while in December 1916 Henry Gantt helped to found the short-lived 'New Machine', an association seeking to acquire political power and exercise it according to the criteria of industrial efficiency. Inspiration for this effort was found in the works of Thorstein Veblen and the now obscure

⁸ Taylor, *Testimony*, 27–30.

⁹ Taylor, *Scientific Management*, 8.

¹⁰ See Ralf Dahrendorf, *Class and Class Conflict in Industrial Society* (Stanford, 1959) 157–205. A theoretical framework for a view more in line with Taylorite implications is provided by Talcott Parsons, 'Social Classes and Class Conflict in the Light of Recent Sociological Theory', in *Essays in Sociological Theory* (New York, 1964).

¹¹ Haber, *Efficiency and Uplift*, 41. Cf. F.B. Gilbreth, *Motion Study: A Method for Increasing the Efficiency of the Workman* (New York, 1911). For a general discussion of efficiency as a national theme see Daniel Bell, 'Work and its Discontents: the Cult of Efficiency in America', in *The End of Ideology* (Glencoe, Ill., 1960).

Charles A. Ferguson, who combined evangelism with an elitist proto-syndicalism.¹²

Given an overall national commitment to democracy, its re-definition to square with criteria of optimality and efficiency seemed imperative, and this the Progressive era writers undertook. Democracy, wrote Ferguson, 'is not the rule of the majority but of the wilful servants of all', and he advocated the devolution of power to self-administering economic associations.¹³ 'Democracy is a method, a scientific technique of evolving the will of the people', claimed Mary P. Follett, a future theorist of scientific management influenced by English neo-Hegelianism and Guild Socialism.¹⁴ Minimal, but scientific government by experts, complex schemes for the self-regulation of industry, with production, not profit as the criterion, reflected a similar quest for a new concept of authority that would transform the economic interests now smothering the public welfare into the very bearers of the community's advance into abundance. 'There is no legitimate power but the power to deliver goods', stated Ferguson,¹⁵ while Gantt wrote that 'The era of force must give way to the era of knowledge'. The engineers would be summoned to impose optimality upon society as they did in the factory: 'The new democracy does not consist in the privilege of doing as one pleases, whether it is right or wrong, but in each man's doing his part in the best way that can be devised from scientific knowledge and experience.'¹⁶

This functional model naturally became more topical when a War Industries Board offered a prototype of the new industrial co-ordination. Unprecedented material requirements also pressed

¹² Haber, *Efficiency and Uplift*, 44–9; Alford, *Gantt*, 264 ff.; for Emerson's rotarian prose see *The Twelve Principles of Efficiency* (New York, 1913); for Ferguson, *The Great News* (New York, 1915).

¹³ Ferguson, *The Great News*, 59, 73–5; for the Progressives and scientific management: Haber, *Efficiency and Uplift*, 75 ff.

¹⁴ Mary P. Follett, *The New State: Group Organization the Solution of Popular Government* [1918] (3rd ed., London, 1934), 180. Miss Follett spotlighted the tension – to be found in later planning concepts – between the public interest and the policies of the quasi-syndical bodies to whom the English pluralists wished to give authority (258–319); for an illuminating discussion of ambiguities tending the other way, see Charles Forcey, *The Crossroads of Liberalism* (New York, 1967), 37 ff.

¹⁵ Ferguson, *The Great News*, 103.

¹⁶ Alford, *Gantt*, 253, 196.

home the need for efficient use of national resources. Hence the war made the problem of industrial relations both more urgent and more tractable, according to Morris Llewellyn Cooke, another reformist engineer, for it had convinced all parties of the necessity of increasing production.¹⁷

It was logical, too, that the war and its aftermath should help to crystallize two explicit alternatives for the role of the engineer: Veblen's isolated revolutionary prescription, and Herbert Hoover's ameliorist activism. By the early 1920s Veblen was addressing himself directly to the engineers in an effort to reshape modern capitalist society. Throughout his works he had envisaged an enduring social conflict between the industrious and the exploiters. The 'pecuniary' occupations justified their frankly parasitic role by the conventions of private ownership, while those conditioned by technological rationality – engineers and workers – were most liable to question the nexus of private property (or absentee ownership).¹⁸ By the end of the first world war, Veblen was concentrating on the engineer as strategically pre-eminent, for through him the genuinely productive forces at last had a hand upon the nerve centres of modern society. The engineers could act, were they so disposed, to end the conventions of absentee ownership on behalf of all those engaged in non-exploitative labour. Veblen probably misunderstood the temper of the engineers; certainly he inverted the social role of engineering as its actual practitioners conceived it.¹⁹ In their 1921 investigation of waste in industry, for example, the Hoover committee, sponsored by the Federated American Engineering Societies, pointed to the engineer not as a syndicalist revolutionary, but as a rationalizer of a basically successful system:

His lifelong training in quantitative thought, his intimate experience with industrial life, leading to an objective and detached point of view, his strategic position as a party of the third part with reference to many of the conflicting economic groups, and above all his practical emphasis

¹⁷ M.L. Cooke, 'Forward', *Modern Manufacturing, A Partnership of Idealism and Common Sense. Annals of the American Academy of Political and Social Science*, September 1919, vi.

¹⁸ Thorstein Veblen, *The Theory of Business Enterprise* [1904] (New York, New American Library, n.d.), esp. 144–76.

¹⁹ Edwin Layton, 'Veblen and the Engineers', *American Quarterly*, Spring 1962; Calvert, *The Mechanical Engineer in America*, 263–76; Veblen, *The Engineers and the Price System* [1914–21] (New York, 1963), 93–108.

on construction and production, place upon him the duty to make his point of view effective.²⁰

Certainly the attributes of the engineer were the potentially technocratic ones, but Hoover's view of his task was more circumscribed than Veblen's. For Veblen the business system had virtually to manufacture waste to preserve hierarchy, and commitment to optimality or abundance was impossible within American capitalism. For Hoover the engineer helped to eliminate the frictions of a basically superior economic order.²¹ It was not surprising that Veblen's conception found little response until the depression, while Hoover's helped to set the tone of the 1920s. Together, they showed the malleability of the stress on productivity: as the next decade in Europe revealed, the technological vision could serve the ends of transformation or of the status quo.

The ambivalence of the right-radical response

The imagery of the technological vision was as potent as its utopian ideology; if the machine was to alter society it must transform the environment. Viewed retrospectively, the response of art and architecture revealed in what milieux the imaginative concepts of technology proved influential, as they did in Germany and Austria, Italy, and later in Russia and France. The formation of the German Werkbund in 1907, for example, brought together the left-liberal and national-social political leader Friedrich Naumann, representatives of forward-looking industries such as German General Electric (AEG), and architectural innovators, including Hermann Muthesius, Peter Behrens, and Walter Gropius. Its establishment, however, did not mean that the claims of modernity were carrying the day in central Europe. Instead it suggested that a self-conscious technological inspiration might very well arise where society revealed deep fissures and strong reactionary impulses. The vision behind the Werkbund represented in fact an effort to overcome the fracturing materialism of Wilhelmine

²⁰ Committee on Elimination of Waste in Industry of the Federated American Engineering Societies, *Waste in Industry* (New York, 1921), 33. Later popularization of the waste theme is found in Stuart Chase, *The Tragedy of Waste* (New York, 1925). For the transition from engineering to planning at the end of the decade, see Charles A. Beard, ed., *Toward Civilization* (New York, 1930).

²¹ On general economic views, see Hoover to Woodrow Wilson, 28 March 1919, in A.J. Mayer, *Politics and the Diplomacy of Peacemaking* (New York, 1967), esp. 25; and Herbert Hoover, *American Individualism* (New York, 1922).

society. Gropius himself praised the stark American factories and grain elevators as models for the new style and claimed that a good factory aesthetic was important from a social point of view, for it permitted a more joyful cooperative effort.²²

Contributing to a related tendency, but one with a different political outcome, were the Italian Futurists, whose work drew on the machine as a fount of eroticism, violence, and death. Severini's and Bolla's paintings as well as Marinetti's notorious *Manifesto* prefigured a crucial development in the engineering vision: the right-radical union of technology and irrationalism. Revealingly, liberal France and England seemed at the time to produce less work of specific technological inspiration but by the early 1920s, as the American industrial model attracted ever more attention, it stimulated an artistic response there too. Le Corbusier praised Ford and Taylor in his treatises and sought to bring France's sadly fallen architects up to the level of 'healthy and virile, active and useful, balanced and happy engineers'. The house, then the city, was to be transformed from monument to tool. The new aesthetic required a new technocracy: Le Corbusier's town-planning evangelism of the early twenties demanded a linear regularity imposed by a far-seeing authority – a 'technical work' on behalf neither of communism nor of capitalism.²³ Not that communism lacked similar inspiration: in Moscow an abstract formalism that celebrated the union of technological possibilities with social revolution flourished for a few exciting years, reflecting some of the same impulses that led to Lenin's flirtation with

²² For general discussion, Nikolaus Pevsner, *Pioneers of Modern Design* (Baltimore, 1965), 31–9, 179 ff.; Reyner Banham, *Theory and Design in the First Machine Age* (London, 1960), 68–87; Walter Gropius, 'Die Entwicklung moderner Industriebaukunst', *Jahrbuch des deutschen Werkbundes* (Jena, 1913), 17–22. Cf. also Hermann Muthesius, 'Das Formproblem im Ingenieurbau' in the same issue; W.H. Jordy, 'The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer', *Perspectives in American History*, II (1968), esp. 489–91.

²³ For Futurism and Le Corbusier, Banham, *Theory and Design*, 99–137, 220–63; cf. James Joll, 'F.T. Marinetti: Futurism and Fascism', in *Intellectuals in Politics* (London, 1960), esp. 169–70 for Mussolini's delight in the mechanical, and T. Marinetti, *La democrazia futurista* (Milan, 1919), for a technocratic projection. See Le Corbusier, *Vers une architecture* (2nd ed. Paris, 1924), 6 ff. for the engineer, and 234 on the needs of the 'service class', and *The City of Tomorrow* (London, 1947), transl. of *L'urbanisme* 1929 ed.), 308–09.

Taylorism and the Russian enthusiasm for scientific management and American engineering.²⁴

Conversely, those places where the cultural avant-garde showed little response displayed less interest in the new doctrines in general. In England, before the war, schemes of scientific management awoke scant interest among engineers and managers. Not merely did this reflect an industrial leadership set in its ways; an underlying satisfaction with decentralized production, with the premises of a liberal regime in a country where the middle-classes felt little anxiety about the social order, postponed real interest until the economic difficulties of the 1920s and 1930s.²⁵ Initially France, too, seemed little moved by American technological messianism. There the response to scientific management also remained scattered until the later 1920s, when, serving more conservative ends, American-inspired visions of productivity and modernization were able to arouse businessmen and politicians.²⁶

Certainly impulses towards 'Americanism' were present earlier; the necessities of war production encouraged interest in the innovations of France's ally; in early 1918 Clemenceau asked that attention be paid to Taylorism in war-plants and suggested the

²⁴ Banham, *Theory and Design*, 193ff.; Camilla Gray, *The Great Experiment: Russian Art 1863-1922* (New York, 1962), 181-97, 215-27; cf. also K. G. Pontus-Hultén, *The Machine as seen at the End of the Mechanical Age* (New York, 1968), 107 ff., 128 ff. On Russian enthusiasm for scientific management, Devinat, *Scientific Management in Europe*, 86 ff.

²⁵ A. L. Levine, *Industrial Retardation in Britain, 1880-1914* (London, 1967), 60-8; Cf. the judgment of a leading advocate that scientific management was long delayed in England as a general movement despite occasional Taylorite applications - a lag attributed to empirical modes of thought and a dislike of large-scale organization, which lasted beyond the first world war. L. Urwick, *The Development of Scientific Management in Great Britain* (London, 1938), 75-80.

²⁶ For a brief account of the progress of scientific management in France and other European nations, see Devinat, *Scientific Management in Europe*, 233-45, and the preface by Albert Thomas, which describes initial French working-class resistance. Devinat includes extensive bibliographies of French and German works. See above all the works of Henri LeChatelier, metallurgist at the Sorbonne, editor of a Comité des Forges-sponsored journal, and translator of Taylor, including *Le Taylorisme* (2nd ed. Paris, 1934). For the related approach of Henry Fayol and his *doctrine administrative* see Fayol, *Industrial and General Administration* (Engl. transl. London, 1930), with an extensive bibliography, and J. Billard, *Organisation et direction dans les affaires privées et les services publics. Un essai de doctrine, le Fayolisme* (Paris, 1924); for a contrast between Taylorism and Fayolism: François Bourricaud, 'France', in A. M. Rose, ed., *The Institutions of Advanced Societies* (Minneapolis, 1958), 490-1. For the major French socialist critique of Taylorism as practised in America see André Philip, *Le problème ouvrier aux Etats-Unis* (Paris, 1927), 39-87.

establishment of Taylorite planning departments.²⁷ Even more promising was the ideological tendency in French politics that anticipated the quest for the engineer as social manager. Saint-Simonianism embodied a proto-technocratic ideology that rejected traditional class divisions in favour of the unity of all 'productive' and 'industrious' elements, bourgeois, peasant, and proletarian, against the useless aristocrats and rentiers.²⁸ Veblen's contemporary categories were strikingly reminiscent of the Saint-Simonian scheme; and, of course, American condemnations of idleness and waste might have been taken directly from the French utopian's writings. Saint-Simonianism had projected a disinterested social optimization from above, a functional administrative structure, and a commitment to the aggregate wealth and welfare of society – all themes that appeared in American writings.

But in France after the first world war only a handful of confessed Saint-Simonians existed to publish the obscure *Le Producteur*.²⁹ To be sure, the idea of 'production' aroused many observers, including, for instance, the popular Mayor of Lyon, Edouard Herriot, who in 1919 called attention to Taylorism and appealed for bureaucratic, economic, and educational modernization in a technologically inspired 'fourth republic'. The new regime was to abandon the pre-war party cliques, local patronage, and *café-comptoir comités* that formed the warp and woof of French politics.³⁰ But Herriot's rhetorical ebullience did not imply practical commitment, nor were his own Radical Socialists likely to follow his advice on technological overhaul and abandon the small-town network of interests that was their own power base. Likewise, when Etienne Clémentel, Clemenceau's Minister of Commerce, sought to present an organization model for French industrial self-administration in a *Fédération des Syndicats*, he encountered suspicion and apathy from businessmen who desired primarily to shake off wartime supervision and return to their old and less daring habits.³¹

²⁷ Cited in Copley, *Taylor*, I, xxi.

²⁸ For summaries of the ideology see Frank Manuel, *The New World of Henri Saint-Simon* (Cambridge, Mass., 1956), and Manuel, *The Prophets of Paris* (Cambridge, Mass., 1962), 105–48.

²⁹ For this group see Marc Bourbonnais, *Le néo saint-simonisme dans la vie sociale d'aujourd'hui* (Paris, 1923).

³⁰ Edouard Herriot, *Créer* (2 vols., Paris, 1919), esp. I, 448–68, II, 335.

³¹ For Clémentel's efforts, *La Journée Industrielle*, 8–9 March, 16, 25–8 April 1919.

That these strict Saint-Simonian themes found only a faint echo was understandable, for their origins linked them with the logic of strong executive authority, and they had enjoyed their greatest influence under the Second Empire. As long as the parliamentary regime functioned satisfactorily, the process of political selection kept the would-be technocrats from positions of influence. Nonetheless, the war could not leave the parliamentary status quo absolutely immune. The legacy of the 1917 crisis, the impatience with earlier Radical-Socialist domination, the pervasive feeling that total war must yield profound if vague transformations – all contributed to the anti-parliamentary overtones that emerged in the Bloc National elections of November 1919. For the first time since the 1890s, not merely a clerical or reactionary, but a genuine right-radical tone was evident³²: here and there among Bloc National candidates themselves, occasionally in the scattered efforts of Action Française, finally in the ephemeral new movement led by Lysis (Ernest Letailleur). Lysis complained that France lacked '*Pidée d'une technique nationale*', and was stifled by backward oligarchies and parliamentary stockjobbers. He called for the representation of professional groups, distinguished 'productive' capitalism from its parasitic version, and advocated a new socialism that postulated class unity instead of class conflict.³³ His followers fared badly in the elections, because the Bloc National candidates responded well enough to the discontents he manipulated, not because his programme was rejected outright. For a significant political organization to exploit Lysis' ideological themes, France had to wait until the mid-1920s with its parliamentary paralysis and an angered bourgeoisie.

Elsewhere right-radical spokesmen for a 'productivist' ideology had more impact. Nevertheless, a central ambivalence towards technology itself marked their thinking, much as it did Futurist art. If right-radical spokesmen wished to assail the liberal capitalist order, or at least the liberal parliamentary order, their anti-intellectualism undermined a reliance upon the engineer, the manager, or other specialized expert as a potential leader. Before

³² André Siegfried, *Tableau des partis en France* (Paris, 1930), 131–2.

³³ Lysis, *Vers la démocratie nouvelle* (Paris, 1919), 37 ff., 117 ff., 277; for the Bloc National programmes see *Programmes, professions de foi et engagements électoraux de 1919* (Paris, 1920).

the war this had been foreshadowed in the problematic writings of Georges Sorel. Like Veblen, with whom he forms an instructive contrast, Sorel retained the old dichotomy between useful production and financial exploitation. By training an engineer, Sorel saw the virtuous man as maker, but he treasured a pre-industrial *morale des producteurs* that only the small workshop could preserve. Whereas Veblen's glorification of workmanship was unambiguously pacific, Sorel's ideal included a vigorously militant component that in modern conditions could be restored only through commitment to a myth of imminent revolutionary struggle. The enlightenment-bred rationalism that helped to advance the machine age also denatured man, while for Veblen technology in no way diminished humanity.³⁴

The Italian episode of early fascist technocracy reflects the stresses inherent in Sorel's theories within a real institutional context. In Italy the themes of new industrial leadership and anti-parliamentarism were tightly interwoven. Pre-war Italian nationalist writers had assailed liberal and social democracy on behalf of a right-radical syndicalism.³⁵ In 1917 the President of the Comitato Nazionale Scientifico Tecnico, G. Belluzzo, later fascist economics minister, called for an eventual transformation of the state, to be preceded by industrial rationalization and concentration.³⁶ By August 1918, Mussolini had changed the subtitle of his own newspaper from *Socialist Daily* to *Daily for Soldiers and Producers*. Indicatively, he condemned the socialist-party 'parasites of blood', and 'parasites of labour', adding that 'to defend the producers means to let the bourgeoisie complete its historical

³⁴ Georges Sorel, *Réflexions sur la violence* (11th ed., Paris, 1950), 109–20, 377 ff.; *Les illusions du progrès* (Paris, 1947); cf. also I.L. Horowitz, *Radicalism and the Revolt against Reason; The Social Theories of Georges Sorel* (Carbondale, Ill., 1968), esp. 127–63; Michel Freund, *Georges Sorel, Der revolutionaere Konservatismus* (Frankfurt am Main, 1932).

³⁵ See among other works, Enrico Corradini, *La marcia dei produttori* (Rome, 1916) and *Discorsi politici (1902–1923)* (Florence, 1923); P.M. Arcari, *L'elaborazione della dottrina politica nazionalista (1870–1914)* (3 vols., Florence, 1934–1939); and the very useful Paolo Ungari, *Alfredo Rocco e l'ideologia giuridica del fascismo* (Brescia, 1963).

³⁶ G. Belluzzo, *La organizzazione scientifica delle industrie meccaniche in Italia* (Milan, 1917), 3–4; cited in Paola Fiorentina, 'Ristrutturazione capitalistica e sfruttamento operaio in Italia negli anni '20', *Rivista Storica del Socialismo*, January–April 1967, 135–6. For an Italian discussion of the progress of Taylorism and scientific management in this period, see Angelo Mariotti, 'L'organizzazione del lavoro', *Rivista Italiana di Sociologia*, 1918.

function'.³⁷ This theme was still pursued after the war: 'No political revolution, no extremism, no expropriation and not even a class struggle, if the chiefs of the enterprises are intelligent. Intensive, harmonious collaboration of industrialists and workers in production.'³⁸

Mussolini's *produttovismo* depended less on the engineer, or technology, than on the expert in general. One of the young exponents of fascist technocracy was to capture the prevailing imagery later, when he claimed: 'The fascist state is more than a state, it is a dynamo' – a rhetorical flourish reflecting the Futurist influence in the early movement.³⁹ Once in power, the fascists sought to establish committees of experts from all fields. The party statutes of autumn 1921 required local *fasci* to prepare lists of cooperative specialists in the public services and economic life. In theory, these *gruppi di competenza* were to furnish the Fascist Party with a general staff ready to take over the state; more practically, to win potential sympathizers by making the movement seem less narrowly ideological. Nonetheless, the cadres were conceived almost entirely in terms of restoring state and bureaucratic authority, oriented towards ministries, not factories. Those instituted in 1923, moreover, were presided over by leading government figures, which meant they could scarcely escape political supervision.⁴⁰

The tentative character of the effort and its lack of real anchorage as a technocracy were demonstrated by the fate of the groups during the party disputes of 1923–4. Massimo Rocca, former journalist and champion of the *gruppi di competenza*, was also the exponent of fascist 'revisionism'. This represented a policy of

³⁷ Benito Mussolini, 'Novita', *Il Popolo d'Italia*, 1 August 1918, included in *Opera Omnia di Benito Mussolini*, XI (Florence, 1953); cf. also Renzo De Felice, *Mussolini il rivoluzionario* (Turin, 1965), 405–6; Roberto Vivarelli, *Il dopoguerra in Italia e l'avvento del fascismo (1918–1922)*, I, 234–5, 271–7.

³⁸ 'Il sindacalismo nazionale. Per rinascere!' *Popolo d'Italia*, 17 November 1918; cited De Felice, *Mussolini*, 493–4; *Opera Omnia*, XII, 11–14. For the influence of Lysis on Mussolini see De Felice, 410. While De Felice sees Mussolini's 'productivism' as a new reformism seeking to undercut the socialists, Vivarelli emphasizes the link with rightwing nationalism from the outset.

³⁹ Camillo Pelizzi, *Problemi e realtà del fascismo* (Florence, 1924), 165.

⁴⁰ Alberto Aquarone, 'Aspirazioni tecnocratiche del primo fascismo', *Nord e Sud*, April 1964; Camillo Pelizzi, *Una rivoluzione mancata* (Milan, 1949), esp. ch. I; Massimo Rocca, *Come il fascismo divenne una dittatura* (Milan, 1952), 132 ff.

normalization, a downgrading of the revolutionary claims of fascism, consequently of its local violence, its militia, *ras* and squadrist leadership such as that exercised by Roberto Farinacci of Cremona.⁴¹ It was prepared to sacrifice ideological purity for the sake of collaboration with the liberal elites. This was a line Mussolini found useful to encourage during the initial year or so of his rule, especially as he looked forward to an electoral campaign that would consolidate his position in parliament. Enjoying an electoral law that promised him two thirds of the seats, Mussolini chose a tactic of collaboration to woo the parliamentary notables of the liberal groups for his own slate, while simultaneously working to shatter their old party structures. With the electoral victory of April 1924, however, collaboration with non-fascists was less necessary, and the impatient stalwarts of a radical fascist policy could be appeased. Rocca, whom the fascist intransigents had sought to expel from the party in the fall of 1923, now came under renewed fire and was dropped. Moreover, in the late 1924 crises following the assassination of Matteotti, the spokesmen for integral party dictatorship prevailed over the voices for moderation and normalization, and in the process non-party technocratic aspirations succumbed.⁴²

In fact, from the outset of 1924, the *gruppi di competenza* were being reshaped into less independent *consigli tecnici*, intended explicitly to serve only as bodies that would support the new rulers. In similar manner the syndicalist organizations of Edmondo

⁴¹ Massimo Rocca, 'Il fascismo e l'Italia', *Critica Fascista*, 15 September 1924, reprinted in Rocca, *Idee sul fascismo* (Florence, 1924), esp. 64; also Rocca, 'Diciotto Brumaio', *Critica Fascista*, 24 September 1923, now in Rocca, *Il primo fascismo* (Rome, 1964), 99. For Rocca's memoirs: *Come il fascismo divenne una dittatura* (Milan, 1952), esp. 145 ff. For Farinacci's views see his article 'La seconda ondata', *Cremona Nuova*, 29 May 1923, cited in De Felice, *Mussolini il fascista, I. La conquista del potere (1921-1925)* (Turin, 1966), 413-15; also his letter to Mussolini of 4 August 1923, complaining about the preference given to non-fascist, even allegedly anti-fascist technical appointments. See *Segretaria particolare del Duce*, National Archives film, T 586, Roll 448, 062223-24. For a general discussion of the tendencies within the party, Giacomo Lumbroso, *La crisi del fascismo* (Florence, 1925).

⁴² For the political developments, see the works by Rocca cited in the preceding note; also *Mussolini il fascista*, 518-730; Luigi Salvatorelli and Giovanni Mira, *Storia d'Italia nel periodo fascista* (Turin, 1957), 269-332; Adrian Lyttelton, 'Fascism in Italy: The Second Wave', *Journal of Contemporary History*, 1966, republished as *International Fascism, 1920-1945* (New York, 1966), 75-100.

Rossoni were being circumscribed in such a way that any independent labour-oriented objectives would be clearly subordinated to state and party requirements. The regime's growing commitment to state corporations instead of the former syndicates portended a general braking of any genuine radical experimentation. Fascist technocracy was to wane alongside this emasculation of any independent economic or administrative centres of expertise.⁴³

In any case, the very concept of technocratic cadres suffered from a basic ideological equivocation. By appealing to production and technology, fascism, like Saint-Simonianism, wished to assert the role of a new ruling group originating outside the traditionally conceived classes. Fascist, or more precisely national-fascist ideology, resembled Taylorism in a key particular. It promised a 'non-zero-sum' world in which classes no longer prospered only at each other's expense, in contrast to the implications of the traditional spectrum of European ideologies, which were all zero-sum or redistributive. Their prescriptions entailed transferring portions of a given quantity of power, status, and wealth from one social group to another – or preventing such transfer. Marxism involved only the most radical redistributive objective. The appeal of Saint-Simonianism, or of the American engineering vision, consisted precisely in its claim to avoid such painful transfers. Expanding productivity meant that no repartition of a fixed quantum of national wealth was required. Postulating a new social category of producers, or more narrowly, an elite of scientific managers who arbitrated conflict, meant that the hostile confrontation between the traditional classes was superseded.

While making similar claims, fascist ideology differed in some key respects. The model of social engineering indicated that internal disputes about power could be sublimated into technical questions of optimization. Fascism added the concept that class disputes must dissolve before overriding clashes among nation-states: Italy as a whole was a proletariat among European powers. Secondly, if Saint-Simonianism stressed the contribution of a vanguard of entrepreneurs, and Taylorism spotlighted the engineers, fascism drew upon other potential leaders. Arising out of a fervent interventionist commitment, it posited the *combattenti* as a

⁴³ Aquarone, 'Aspirazioni tecnocratiche del primo fascismo', *loc. cit.*, 125–28; *L'organizzazione dello stato totalitario* (Turin, 1965), 113–18.

directing elite by virtue of their trials at the front. It did not reject the claims of technology and productivity to coordinate hitherto opposed interests, but these could not be the only claims to leadership; 'blood', and exposure in the trenches also counted.

This effort to combine technology with vitalist sources of energy contributed powerfully to the appeal of the right-radical ideology. German right-radicalism or so-called revolutionary conservatism often revealed the same problematic synthesis – a dual hostility to liberalism and to a materialism that the Left also condemned. The Werkbund, for example, attracted future right-radical spokesmen as well as democratic ones; and its early architects looked back to the inspiration of the *Rembrandtdeutscher*, Langbehn, who demanded a break with the stuffy and syncretic styles of the 1880s.⁴⁴ Oswald Spengler, who was considered one of the elders of Weimar's revolutionary conservative movement, symptomatically fused machine imagery and hostility to liberalism. 'The centre of this artificial and complicated realm of the Machine', he wrote, 'is the organizer and manager'. But with the manager was 'the *engineer*, the priest of the machine, the man who knows it . . . the machine's master and destiny'.⁴⁵ Nonetheless, Spengler saw the powers of money – 'our inner England' he called them elsewhere: 'capitalism and parliamentary liberalism'⁴⁶ – enslaving the forces of technology to be defeated, in their turn, only by 'blood' and a new Caesarist collectivism, or perhaps a Prussian socialism of labour and subordination to the state.⁴⁷ In Spengler's conception, therefore, technology could never replace power. Technocracy, strictly speaking, was impossible, even though the engineer was the indispensable auxiliary of rule in the machine age.

Thus from Sorel to Mussolini and the German conservative revolutionaries, the technological vision was incorporated in an uneasy relationship with a commitment to nonrational values. For its adherent there was a compelling psychological validity in the image of the engineer at the service of an aggressive national allegiance: the hard master of machine civilization sweeping away nineteenth-century sentimentality and petit-bourgeois democracy.

⁴⁴ Banham, *Theory and Design*, 72.

⁴⁵ Oswald Spengler, *The Decline of the West* (Engl. transl. New York, 1932), II, 504–5.

⁴⁶ Oswald Spengler, 'Prussianism and Socialism', *Selected Essays* (Engl. transl., Chicago, 1964), 87.

⁴⁷ Spengler, *Decline of the West*, II, 506; *Selected Essays*, 129–31.

The ideological effort to banish social conflict could invoke national power and a new authoritarianism as well as national welfare and slide-rule optimality. Hence it was consistent that America should be seen in a Janus-like perspective: the empire of technical rationality on the one hand, whose new cities so impressed and horrified men like Spengler (and Le Corbusier)⁴⁸; the embodiment, on the other hand, of a hypocritical Wilsonian democratic pathos – detested by nationalists in Italy and Germany as masking Anglo-Saxon financial imperialism. In that contradictory estimate was reflected the radical Right's own inner division between technological reason and the utilitarian rationality of liberalism.

The ambiguities of planning

Approaching the national syndicalism of the Right was a growing interest in planning among men of the Left. Walther Rathenau of AEG and his collaborator, the Prussian aristocrat and engineer Wichard von Moellendorf, elaborated their experience of organizing wartime production and raw-material allocation into a conception of *Planwirtschaft* to be preserved after hostilities ended. Socialist Party members such as Rudolf Wissell, who served as Economics Minister in 1919, and Max Cohen, who advocated a corporatist upper house, as well as Georg Bernhard, editor of the liberal *Vossische Zeitung*, close to the new Democratic Party and a proponent of a National Economic Council, likewise sought to structure the economy by combining elements of the leftist *Räte* (councils) idea with organic concepts of the state and community. What they all envisaged, in general, was a pyramid of industrial planning organs that would include representatives of the entrepreneurs, labour, and the state. With the power to set prices, allocate raw material and market shares, and generally determine economic policy, the new institutions were to embody the vision of class collaboration in the public interest. Even when the advocates of these schemes belonged, like Wissell, to the Social Democratic Party (SPD), they emphasized not proletarian hegemony, but maximum production for the *Gesamtheit* of German society.

But there were as many ambiguities in the Left's conception of planning as in the Right's attitude towards technocracy. It was

⁴⁸ Spengler, *Decline of the West*, II, 100–1, on the soullessness of checker-board planning; Le Corbusier, *The City of Tomorrow*, 63, 76.

assumed that by seating together the delegates of industry, labour, and consumers or the state, all decisions reached would be bound to ensure the public interest at large; furthermore, that political constraint could be banished from the economic sphere. Here, of course, was the same industrial utopianism that scientific management and wartime organization had suggested in America. In Germany, however, the attempt actually to institutionalize the vision in early Weimar led to difficulties that were not fully evident in the United States until the experiment with the National Recovery Administration.⁴⁹

The institutional models for *Planwirtschaft* were borrowed primarily from Germany's wartime organization, including the war corporations of mixed state and private ownership that Rathenau had seen as a stage between capitalism and state socialism. The war also created the material preconditions for the collaboration of management and labour that was so central to the planning schemes. The ravenous appetite of the war effort for production at any price – more precisely, the demands of generals and industrialists for often irrational production at inordinate cost – facilitated the bargaining: the entrepreneurs could enjoy extraordinary profits, while trade union leaders won new influence over conditions of labour. Inflationary war finance obviated older conflicts over wages, as industry and labour together appropriated resources from the relatively fixed-income sectors of the economy.⁵⁰ Given wartime demand, a commitment to production could indeed foster cooperation – but the community paid as well as benefited.

Rathenau and Moellendorff did not approve of the economic megalomania of the Hindenburg Plan, but they did wish to consolidate the new collaboration. Besides tackling the same administrative tasks together, they also shared similar spiritual predispositions. The great dynamos of German General Electric, and the austere image of Prussian discipline and tradition, cap-

⁴⁹ Cf. Ellis W. Hawley, *The New Deal and the Problem of Monopoly* (Princeton, 1966), 35–46, for the tensions within planning conceptions.

⁵⁰ For Rathenau's views on war companies see the memo cited in Gerald Feldman, *Army, Industry, and Labor in Germany* (Princeton, 1966), 49. I have drawn upon this book in general for the description of the war's effects. Interestingly enough, the historian of the German wartime organization of raw material production, superintended by Rathenau and Moellendorf, also went on to discuss Taylorism: Otto Goebel, *Taylorismus in der Verwaltung* (Hanover, 1925).

tured their imagination equally. For Rathenau, who could never refrain from philosophizing, the modern era was characterized by the new machine order: 'It is a consolidation of the world into an unconscious association of constraint, into an uninterrupted community of production and economy'. But the way to master this technological destiny was not through any rancorous Marxism, but through a new moral consciousness and, as he suggested first, the 'depersonalization' of property by transforming private enterprises into foundations and giving title to employees, universities, or administrative authorities. In his subsequent discussion of the new economy Rathenau envisaged cartels, with state participation, to co-ordinate planning and eliminate the destructive aspects of competition: a public syndicalism of the producers analogous to the ideas of association contemplated in the United States as well.⁵¹

Moellendorff entertained similar ideals, although he occasionally dissented on details. The coming era, he believed, must be either socialist or anarchic; the engineer, moreover, would be central in making the choice. In his view of the engineer Moellendorff had before the war borrowed heavily from Taylorism, which he found Germanic in its intuitive daring. It imposed the criterion of competence as the ordering principle of the economic world, and it demonstrated that the resources of human labour were not a fixed limit upon production. Taylorism was the paradigm of what made America vital; it infused the economic system with the collective élan of those model, primitive German communities described by Tacitus.⁵² 'If we really come to grasp Taylor fully we will choke off the evils of our economy from above and below: the confusion of the incompetent, the constraints of interest on the industrious, the arbitrariness of the shortsighted, the supremacy of the success-

⁵¹ Walther Rathenau, *Von kommenden Dingen*, [1916] *Gesammelte Schriften*, III (Berlin, 1918), 35, 64 ff., 139-40, 158-9; cf. *Die neue Wirtschaft* [1917], *Gesammelte Schriften*, V (Berlin, 1918), esp. 203 ff., 231 ff. for the state cartel concept: 'These structures are differentiated from the old guild system . . . no sanction for association of individual interests, no interest group of sovereign individual and small firms, but a community of production in which all members are organically interwoven' (235). On the constructive role of the state, 249-50; for the new order's role in advancing welfare, but not imposing a forced equality, 255. For Rathenau's critique of orthodox Social-Democratic solutions, see *Der neue Staat* (Berlin, 1922), 38, 61 ff.

⁵² Wichard von Moellendorff, *Konservativer Sozialismus* (Hamburg, 1932), 34-46.

ful, the pity of the timid'. Moellendorff's vision was not without its authoritarian side: Taylorism functioned in his eyes as a 'militarism of production', training workers to drop their complaints about the inevitable division between management and labour.⁵³ Like Taylor's hierarchical but conflict-free economy, Moellendorff's embodied a stern collectivism. Although he remained to assist Wissell in the capacity of under-secretary at the Economics Ministry he always disliked the debates over the meaning of 'socialization', to which he preferred the concept of *Gemeinwirtschaft*, roughly an economic commonwealth.⁵⁴

Was it surprising that the Social-Democratic leaders, once they had time to reflect on the memoranda being prepared in Wissell's ministry, were far from happy? They confronted a central dilemma: the responsibility of parliamentary leadership without the power to reshape the economy after they had renounced a *Räte* regime and quick expropriation measures. Once they had opted for a parliamentary democracy, would not the results of a self-administered *Gemeinwirtschaft* really depend upon the power that each side could bring to bear within the organs of political and economic administration? The SPD was understandably confused as to whether planning ideas would advance or hinder socialism. The debates over Taylorism within the party were indicative in this respect. In March 1919, Otto Bauer argued that 'in a democratic and rationally socialized state', Taylorism would serve to increase productivity and thus help the country to acquit the reparation debt more quickly. Two years later Kurt Lewin argued that Taylorism – by which he really meant industrial psychology as a whole – could serve a socialist regime by allocating people to professions not on the basis of a class-biased training, but according to competence.⁵⁵ Taylorism, in short, could legitimately assist socialism in power. But was socialism in power?

⁵³ *Ibid.*, 49–51, 56.

⁵⁴ *Ibid.*, 118–24. From *Der Aufbau der Gemeinwirtschaft; Denkschrift des Reichswirtschaftsministeriums vom 7. Mai 1919* (Jena, 1919).

⁵⁵ Bauer decree of 19 March 1919 and comment in Gustav Pietsch, 'Das Taylorsystem', *Neue Zeit*, 19 September 1919; Kurt Lewin, *Die Sozialisierung des Taylorsystems* (Berlin, 1921). Naturally, when labour spokesmen looked at the implications for conditions of work, and not the increment to production, they were less happy; Pietsch's complaint – that man is made into a mere cog in the machine – was a typical criticism. By the mid 1920s, however, German and French labour were more willing to accept Taylorite proposals, so long as they did not imply mere speed-up. See Devinat, *Scientific Management*, *passim*.

The occasional discussion of Taylorism in its narrow sense raised the very issues which marked the more momentous controversies over the economic agencies of the new regime. The more radical Independent Socialists, often the labour rank and file, desired as great a scope as possible for the factory councils that were composed of worker representatives. Trade union leaders looked with distrust upon the efforts to anchor these *Betriebsräte* in the new constitution, but in the wake of the huge strikes of spring 1919 had to acquiesce in this demand. Union leaders, and the quasi-corporatist socialists of the *Sozialistische Monatshefte*, including Max Cohen, preferred so-called parity-based economic governing bodies – i.e. composed equally of workers and employers – along the lines of the *Arbeitsgemeinschaft* that union leaders and industrialists had worked out of their own accord. At the second congress of *Räte* delegates in April 1919, and then at the SPD congress at Weimar in June, Cohen advocated a Labour Chamber as upper house of the new parliament. The Labour Chamber would emanate from production councils, in which professional men, entrepreneurs, and labour representatives would co-operate to safeguard production and ward off rash nationalization projects. Here was a scheme close in intent to the Rathenau-Moellendorff-Wissell ideas, and indeed Cohen shared their assumptions. Socialism in his eyes meant little more than an easier path to enhanced productivity, and it required a continuing partnership with the entrepreneurs, if not as capitalists, then as industrial experts.⁵⁶ In short, his plans really abandoned any significant redistribution of power to the working class, concentrating instead on seeking a harmony that would eliminate the need for socialism or workers control.

Actually, the SPD was so used to arguing in terms of a general democratic commitment to the community as a whole that the

⁵⁶ For the Cohen arguments: *Protokoll über die Verhandlungen des Parteitagess der SPD abgehalten in Weimar am 15/16. Juni 1919* (Berlin, 1919), 422–8. Cohen was debating against Hugo Sinzheimer, who brilliantly defended the *Räte*, concurred in the idea of a planned economy with priority for the ‘needs of the whole community’, but wanted no incorporation of *Räte*-based delegates in parliament, lest a chamber of councils degenerate into a mere representation of interest groups. *Ibid.*, 413–16. On the general problem of the *Räte* and the conflicting pressures in early 1919 see Peter von Oertzen, *Betriebsräte in der Novemberrevolution* (Düsseldorf, 1963). For the link between *Räte* and planned-economy notions, cf. Rudolf Wissell, ‘Zur Räte Idee’, *Neue Zeit*, 30 May 1919, 195 ff.

socialism it did press for had little institutional bite – witness the ineffective Reich Coal Council established in the spring of 1919. Moderate socialists did not really desire a victory of the proletariat at the cost of production, a course that seemed suicidal given the position of the Allies. To consolidate parliamentary democracy, furthermore, was thought the surest way to uplift the working class. Nevertheless, did not Cohen's plans mean the emasculation of any gains in the economic sphere? Enough pitfalls seemed to loom ahead for the SPD to reject the general conceptions of *Planwirtschaft*, first within the cabinet in July 1919, then finally at the Kassel congress in late 1920. As Karl Landauer admitted, according to organizational criteria, industrial rationalization and planning might appear a step towards socialism. Misleadingly so, however; for without working-class power such planning institutions would only rationalize capitalism.⁵⁷

Here in fact lay the seductiveness of planning for many of the socialists to begin with. From Hilferding's 1910 analysis of finance-capital on, the era of capitalist cartellization and concentration was interpreted as a transformation of the bourgeois economy which might temporarily postpone its collapse but would ultimately render at least the economic transition to socialism all the easier. Even Lenin had accepted this view, and thereafter was also able to endorse a stage of state capitalism that amounted to trustification under proletarian auspices. To Russian observers, in fact, the German war economy, with its nascent planning, actually embodied the economic aspect of the transformation. In his first months of power, Lenin openly endorsed Taylorism as a means to reinforce Soviet power. His economic advisers, Milyutin and Larin, drew explicitly on the notions of Rathenau and Moellendorff; and continuing into the twenties, industrial trusts under Bolshevik command served as a flexible framework within which

⁵⁷ For rejection of Wissell's proposals on *Planwirtschaft* see the cabinet meeting of 8 July, 'Alte Reichskanzlei, Kabinett-Protokolle', National Archives German Foreign Ministry Films 1349/742683–731; also the National Assembly session of 28 July: *Verhandlungen der verfassungsgebenden deutschen Nationalversammlung*, Bd. 328, 1848 ff. For Karl Landauer's comment see 'Planwirtschaft. Ein Nachwort zum Parteitage', *Neue Zeit*, 10 December 1920, 249–56. For a recent socialist view making the same point see Wolfgang Abendroth, 'Die Alternative der Planung: Planung zur Erhaltung des Spätkapitalismus oder Planung in Richtung auf eine klassenlose Gesellschaft', in *Antagonistische Gesellschaft und politische Demokratie* (Neuwied, 1967).

to reorganize a shattered economy.⁵⁸ What was crucial, however, was that Lenin had seized effective power before instituting steps towards planning; he had settled the central *kto-kogo* (who-whom) question, and this the German Social Democrats had not done. Taylorism and planning could indeed serve Soviet rule, but were no substitute for it; communism, as Lenin said, might be Soviet power plus electrification – but not electrification alone.⁵⁹ Finally, if in the West Taylorism was incorporated into ideologies that denied the necessary existence of class conflict, in Russia it could be accepted precisely because that conflict had been decided and a new era of relationships had opened.

What happened when the Left embraced the utopias of productivity before securing power was demonstrated by the sequel to planning in Germany. Cohen's idea for a Chamber of Labour and Production Council finally was incorporated in the Constitution in a compromise form. A Reich Economic Council, *Reichswirtschaftsrat*, which would group employee, employer, and public representatives and would advise the parliament on legislative proposals, was to crown a pyramid of economic advisory organs. It found its strongest champions among those bourgeois democrats, such as Georg Bernhard, who wished to keep labour in a partnership of moderation. Nevertheless, Bernhard was not entirely happy. He had endorsed Cohen's original plans for the same reason the Left had rejected them – as a step beyond the idea

⁵⁸ V.I. Lenin, 'The Taylor system, the last word of capitalism in this respect, like all capitalist progress, is a combination of the subtle brutality of bourgeois exploitation and a number of its greatest scientific achievements in the field of analysing mechanical motions during work, the elimination of superfluous and awkward motions, the working out of correct methods of work, the introduction of the best system of accounting and control, etc. The Soviet Republic must at all costs adopt all that is valuable in the achievements of science and technology in this field. The possibility of building Socialism will be determined precisely by our success in combining the Soviet government and the Soviet organization of administration with the modern achievements of capitalism. We must organize in Russia the study and teaching of the Taylor system and systematically try it out and adapt it to our purposes.' 'The Immediate Tasks of the Soviet Government', *Izvestia*, 28 April 1918; translated in V.I. Lenin, *Selected Works* (2 vols., Moscow, 1947), II, 327. For the economic policies of Lenin and his advisers, and the question of trusts and planning, see E.H. Carr, *The Bolshevik Revolution* (3 vols. London, 1950–3), II, 86–95 on state-capitalism, 109–15 on productivity and Taylorism.

⁵⁹ *Ibid.*, II, 360–75, on the origins of planning and its relationship to the dominant class.

of nationalization towards achieving a 'real equalization of the producers – entrepreneurial producers and labour producers'.⁶⁰ What had emerged, however, was a compromise that the SPD had permitted in order to appease the discontents of those working-class elements who wanted an autonomous role for the *Räte*. Rather than submerge all the workers councils into parity committees, the plans for a hierarchy of economic organs amalgamated *Räte* delegates and industry's representatives only at the institutional summit of the projected system:

Nothing more of any Building of Production is to be discovered here. All ideas seeking to create a new professional ethos in the worker and to summon him to co-operation in productive labour to construct our national economic life have been rejected. In place of a productive socialism the fulfilment of an old union propaganda demand has intervened. In place of a reconciliation of the antagonisms between employer and employee on behalf of a common fruitful cooperation in the service of the enterprise, the old wall between workers and entrepreneurs has been thickened.⁶¹

In fact, Bernhard had no need to worry. The subordinate economic councils never came into existence; hence the *Räte* influence never reached the Reichswirtschaftsrat directly, and – as its records in Potsdam reveal – the latter rarely progressed beyond stalemate and paralysis.⁶²

The final pathetic testimony to the frustrations of the German Left in their invocation of productivity was provided by the renewal of the coal nationalization controversy in mid-1920. Labour reiterated its demand for public control, but was outmanoeuvred largely by the very institutional vagueness their acceptance of production as a goal entailed. Rathenau's scheme for self-administration became the main proposal for discussion, but

⁶⁰ Georg Bernhard, *Wirtschaftsparlament* (Vienna, 1923), 42. For an English discussion of the Economic Council: Herman Finer, *Representative Government and a Parliament of Industry. A Study of the German Federal Economic Council* (London, 1923).

⁶¹ Bernhard, *Wirtschaftsparlament*, 46.

⁶² The Reichswirtschaftsrat functioned actively from 1921 through 1923 and was thereafter restricted in role. Though not a policy-making body, it provided a forum for argument and testimony, usually splitting over reports favourable to industry and those welcome to labour; and could therefore usefully delay proposals that internally-divided ministries wished to cool off. For its records: Deutsches Zentralarchiv, Potsdam, Aktenbestand 04.01; cf. C.D.H. Hauschild, *Der vorläufige Reichswirtschaftsrat 1920–1926* (Berlin, 1926).

where in the suggested structure of self-administration would authority rest? And who would guard the guardians? Even Hugo Stinnes and his collaborator Paul Silverberg managed to exploit the flexibility of self-administration schemes by presenting a grandiose programme that would have given public authority to their own enterprises – all in the name of productivity and the common good!⁶³

The Stinnes plans of 1920 revealed the dangerous institutional ambiguity that all the productivist ideas for transcending class conflict incorporated. Stinnes' insistence upon the necessity of increasing output, which actually meshed with his own interests, represented the logical end-point of the moderates' ideal of productivity. What had in fact occurred was that the original stress on engineering by a Moellendorf had subtly evolved into an emphasis primarily upon corporate reorganization. Like the scientific-management enthusiasts in America, Stinnes, and even Rathenau – for despite their celebrated clashes they shared many key attitudes – wanted private networks of producers to form the nuclei of public authority. To be sure, Rathenau intended a more truly public commitment than Stinnes did; but institutionally his schemes did not guarantee this to any greater degree, for they depended upon little more than a moral commitment to community. Moreover, what was now the substance of these organs for planning and production was no longer technical expertise, but financial manipulation. The two aspects of enterprise that Veblen, for one, had always separated, now became fused in business conceptions in Weimar Germany – and with the exploitative results Veblen had feared. In the last analysis, however, this development was not confined to Germany alone: it was to remain a central ambiguity in all conceptions of technocracy or planning that devolved authority upon private interests. Whether in fascist Italy or liberal Weimar, those who by invoking industrial utopias sought to deny the relevance of power, subordinated themselves to those who

⁶³ I have drawn here on my unpublished Ph.D. dissertation, 'The Strategies of Bourgeois Defense, 1918–1924: A Study of Conservative Politics and Economics in France, Germany, and Italy' (Harvard University, 1966). Major sources include *Verhandlungen der Sozialisierungs-Kommission für den Bergbau im Jahre 1920* (2 vols., Berlin, 1920); Bundesarchiv Koblenz, Paul Silverberg Nachlass; Bundesarchiv Koblenz, Reichskanzlei papers, 'Verhandlungen des Unterausschusses der Sozialisierungsfrage', R 43 I/ 2114.

really had power, political or economic. But perhaps that was what they actually desired.

Fordism and the rationalization of capitalism

With the period of 'stabilization' in Europe came significant changes in the ideological implications of industrial productivity. Here only the salient transformations can be indicated. From mid-decade it was the German-elaborated concept of 'rationalization' that dominated discussions of scientific management. Rationalization focused upon enhancing productivity and technical efficiency, but above all it was associated in Germany with extensive corporation activity – the formation of new cartel-like arrangements upon the ruins of such fragile vertical configurations of the inflation period as the Stinnes empire. German spokesmen, however, still credited the United States with originating the underlying ideas; and American businessmen, such as Edward Filene of Boston and his Twentieth Century Fund, continued to sponsor international studies and congresses to advance scientific management.⁶⁴ But the favoured images of advanced techniques that America presented to the world were changing. The teachings of Taylorism, in its strict sense, were viewed more critically, while Fordism became the vogue. A German commentator explained the change as a widening of scope: while Taylorism concerned only the management of labour, Ford's doctrines stressed reorganization of the entire productive process.⁶⁵ In part this was a rationaliza-

⁶⁴ See Devinat, *Scientific Management in Europe*, esp. preface and 63 ff. National organizations of importance included the Reichskuratorium für Wirtschaftlichkeit, the Masaryk Labour Academy in Prague, the Institut Solvay in Brussels, dedicated to the 'productivist', Saint-Simonian views of its founder, the Russian 'Time Leagues' and the All-Russian Scientific Management Conference, and the Italian Ente Nazionale per l'Organizzazione Scientifica (ENIOS). The best overall survey for rationalization in its European home is Robert Brady, *The Rationalization Movement in German Industry* (Berkeley, 1933). Congresses were held at Prague in 1924, Brussels 1925, and Rome 1927; an International Management Institute was formed in Geneva in January 1927.

⁶⁵ G. Briefs, 'Rationalisierung der Arbeit', in: *Industrie- und Handelskammer zu Berlin, Die Bedeutung der Rationalisierung für das deutsche Wirtschaftsleben* (Berlin, 1928), 41: 'Only one name need be cited here, that of Ford, who developed American rationalization of labour beyond its Taylorite excess and built it into the larger rhythm of the flowing production process. . . . If in Taylor the unveiled profit idea is dominant, with Ford it reigns only within the limits of the idea of social service.' Cf. Ernest Mercier: 'what the average European understands by "Taylorism" tends towards a rigid doctrine that

tion, for Taylorism, too, had earlier been interpreted in the widest sense. But now for practical reasons European apostles of scientific management and rationalization chose to confine Taylorism to its original concern with labour efficiency, thus limiting its utopian implications at the same time. Conversely, the contributions of Ford – the moving assembly line, standardization, and the enlargement of a mass market by low prices and high wages – were seized upon to prove the social potential open to capitalism and large-scale industry, as they existed. Paradoxically, Ford's images of abundance best served the bourgeois-conservative, often Malthusian ends of European business and industry in the later 1920s. Fordism, in sum, offered a technological élan for the beneficiaries of the economic system that Taylorism could not safely provide.

The change arose in large part from the general economic situation of the later 1920s. Currency stabilization and revaluation, accompanied by sharp, if brief, deflationary pressures, characterized much of the period. Although national incomes rose, the increases were associated with severe sectoral or class dislocation: American agriculture and the European coal and steel industry were burdened with excess capacity. More ominously, the fear that the market would be saturated acted as a major spur to rationalization in Europe, with its emphasis upon cutting factor costs, including that of labour. A French spokesman for rationalization pointed to the 'notable diminution of the internal market', and the threat of rigorous foreign competition for customers at home and abroad. A German advocate wrote that the benefit of scientific management to labour must always be smaller in Germany than in the United States, for if America could produce primarily for her own domestic market, German goods had to be competitive abroad and consequently wages had to remain low.⁶⁶ The coal and steel men

industrial practice has abandoned in many cases to adopt a more supple solution'; he added that the last word in scientific organization was symbolized by *travail à la chaîne*, i.e. Ford's assembly line. See 'Les conséquences sociales de la rationalisation en France', in *L'aspect social de la rationalisation*, Redressement Français (Paris, 1927). On the other hand, one commentator was willing to put both men in perspective: 'No matter how important the influence of a Ford or a Taylor, what is it compared to that of a Luther or Rousseau?' A. Verdurand, 'L'homme d'affaires et la France', *Revue de France*, 31 December 1927, 618. For the doctrine that inspired all this, as touched up by subordinates, see Henry Ford, *My Philosophy of Industry* (1921). For a survey of German responses to Fordism see Peter Berg, *Deutschland und Amerika 1918–29* (1963), 96–132.

⁶⁶ Auguste Detoeuf, *La réorganisation industrielle*, Redressement Français

of the continent were engaged in long and wearying negotiations to stabilize market quotas without price competition.⁶⁷ All this tended to reorient the thrust of scientific-management ideas. No longer an economic policy that promised a radical reorganization of society with gains for all, the emphasis on engineering and scientific management took on what we have termed a redistributionist or zero-sum role. Despite protestations to the contrary, rationalization entailed an effort, first to subordinate small producers to large-scale industry, second to reduce the percentage claims of labour upon output as a whole. Fordism justified these policies as a commitment to abundance. In American practice often conservative, Taylorism's stress on the technocrat had a disquieting potential for subversion; Fordism refurbished the entrepreneur directly.

The new conservative role for scientific management doctrines was certainly evident in Germany and Italy. The enthusiasm for rationalization in the Weimar Republic accompanied the four-year political domination of the conservative and bourgeois parties, not the governments with SPD participation. It was prefaced by a stabilization crisis which brought a contraction of credit that not only spurred industrial concentration but encouraged harsh measures against the trade union gains of 1918.⁶⁸ In Italy, during an era of strait-jacketing of labour, manufacturers organized one of the most active cadres for scientific management in Europe – ENIOS – and played host to a congress of like-minded associations in Rome in September 1927. In practical terms, it aimed at the subordination of the many small producers to the large firms and the ascendancy of *Confindustria* policies within the councils of state.

Italian rationalization took place within a context analogous to the German; it accompanied a government shift to protectionism and a deflationary reconversion to the gold standard. In such a transition, with its own liquidity crisis, concentration of industries

(Paris, 1927); Bruno Birnbaum, *Organisation der Rationalisierung Amerika-Deutschland* (Berlin, 1927), 70–1.

⁶⁷ Valuable documentation on these parleys is provided by the National Archives, German Foreign Ministry films: L 177, Handakten Min. Dir. Ritter.

⁶⁸ See Ludwig Preller, *Sozialpolitik in der Weimarer Republik* (Stuttgart, 1949), 294–316; Hans-Hermann Hartwich, *Arbeitsmarkt, Verbände und Staat, 1918–1933* (Berlin, 1967), *passim*; for the employers' viewpoint: Hermann Buecher, *Finanz- und Wirtschaftsentwicklung Deutschlands in den Jahren 1921 bis 1925* (Berlin, 1925), 41–53.

and pressure on wages was a logical response; nor were the fascist labour organizations likely to resist. *L'organizzazione del Lavoro*, therefore, tended to add up to a search for methods of cost-cutting by which the major metallurgical and electrical industries might survive advantageously under changed conditions.⁶⁹

This general redirection of emphasis characterized France and Britain too in the later 1920s. With the contradictory policies of a divided Left between 1924 and 1926, discontent with the French parliamentary regime became more pronounced. The American image of technological expertise contrasted with the spectacle of floundering policies at home; furthermore, it reinforced the drive for consolidation and overhaul on the part of spokesmen for the new large-scale mechanized industries. The most typical product of the growing vogue for Americanism was probably Ernest Mercier's *Redressement Français*. This association, founded during the last protracted agonies of the Cartel des Gauches, represented an effort to form a directing elite of economic experts supposedly above party politics, a cadre for institutional and industrial modernization.⁷⁰

The *Redressement* recapitulated the themes inherent in the quest for productivity. America again loomed as a model of class collaboration and, thanks to Secretary of Commerce Hoover, of efforts at standardization and elimination of waste.⁷¹ Even if there were no 'definitive solution to the social question', Mercier noted, the United States had achieved far more than 'a simple truce'; and another writer stated his conviction 'that there are formulas of economic and social union which enrich the whole of a country without impoverishing its poorest elements'.⁷² Rationalization, its

⁶⁹ Rosario Romeo, *Breve storia della grande industria in Italia* (Bologna, 1963), 153–6; Felice Guarneri, *Battaglie economiche tra le due grandi guerre* (Milan, 1953), 113–39, 146–59; Fiorentina, loc. cit., 137–45.

⁷⁰ R.F. Kuisel, *Ernest Mercier, French Technocrat* (Berkeley, 1967), 45–88, provides the basic discussion of the *Redressement* that I have drawn upon.

⁷¹ Ernest Mercier, *La production et le travail*, *Redressement Français* (Paris, 1927), 10–16. Mercier had visited the US in 1925 and met Filene, Dennison, and other enthusiasts of scientific management. Cf. Detoef, *La réorganisation industrielle*, 67–80, on American rationalization. For the link with Saint-Simonian themes, cf. E.S. Mason, 'Saint-Simonism and the Rationalization of Industry', *Quarterly Journal of Economics*, August 1931.

⁷² Mercier, *La production et le travail*, 25; Detoef, *La réorganisation industrielle*, 1. Among social consequences, of course, was possible unemployment, but both authors thought it would be only transitory: Mercier, 'Les conséquences sociales', loc. cit., 16, 41–2; Detoef, 41–2.

advocates believed, or at least claimed, 'promised a real social revolution'.⁷³ Throughout French industry enthusiasm for American neo- or super-capitalism marked the late 1920s; the years that saw Lindbergh vault the Atlantic witnessed a growing adulation for Fordism as well. André Tardieu, who filled the technical ministries in the Poincaré cabinet of 1926–9, pledged the government to ship and road construction. When he succeeded to the premiership himself, he declared a five-year programme for 'national retooling'.⁷⁴

Despite the rhetorical promises of social revolution and the sweeping vistas of modernization, the ideological implications of the new fashion were actually far less radical than those of the movements earlier in the decade. The political and economic analysis of a Mercier was obviously unlikely to indulge in any anti-capitalism. Spokesmen of the Redressement condemned not a parasitic financial network but the inefficiency of the traditional small producer. Their calls for concentration implied primarily an effort to take over middle-level manufacturers. An artisanate whose semi-luxury trades did not encroach upon industrial production could be praised as a valuable sheet-anchor of French social stability, but the small factory that resisted centralization and standardization was allegedly a threat to progress.⁷⁵ Furthermore, even the technological imagery of the rationalization movement in France was not without its pastoralism. If in Soviet Russia vast hydroelectric projects stood for revolutionary transformation, industrial and political leaders in France praised grid development for saving the small domestic producers of the countryside and slowing down rural depopulation.⁷⁶ Indeed, Mercier's own social analysis reflected a bourgeois conservative

⁷³ Mercier, 'Les conséquences sociales de la rationalisation', 19.

⁷⁴ Rudolph Binion, *Defeated Leaders* (New York, 1960), 289–92. For the general enthusiasm: P. Bourgoïn, 'La rationalisation', *Revue de France*, 15 November 1929; Pierre-Etienne Flandin, 'Le problème social', *Revue de Paris*, 1 February 1928; Edmond Giscard d'Estaing, 'Le Néocapitalisme', *Revue des Deux Mondes*, 1 August 1928.

⁷⁵ On the artisanate, Mercier, 'Les conséquences sociales de la rationalisation', 32. Lucien Romier, editor of the *Journée Industrielle*, then *Le Figaro*, stressed the need to overcome excessive individualism, and was second in eminence within the Redressement. See Kuisel, *Mercier*, 64–5.

⁷⁶ On this theme: Maurice-Charles Bellet, *La politique générale de la Fédération Républicaine de France* (Paris, 1924), which saw electricity saving the French rural family, and Detoëuf, *La réorganisation industrielle*, 33.

traditionalism, far from any right-radical *ressentiment*. The masses needed and deserved welfare benefits, but had no capacity to assume direction of the country or of its industrial plant: 'What one expects from the workers appears at first glance most simple. It is a question merely of their understanding and accepting the necessities.'⁷⁷ Labour unions had to switch from sterile political agitation to collaboration on restricted professional issues. In general, Mercier's managerial elitism emerged as a new defence of that very traditional French bulwark, the bourgeoisie; and his own parliamentary dream was the venerable Union Nationale of the centre groupings. The social policy of the Redressement faded off into the traditional justifications of capitalism by many prominent business politicians of the late twenties, including André François Poncet and Pierre-Étienne Flandin, some of whom ended up with Vichy.⁷⁸

Rationalization in Europe, therefore, was only a stunted offspring of the American productive vision as originally conceived. It served a conservative business community seeking to exploit, first the transition to overall non-inflationary monetary conditions, then the prosperous but increasingly saturated market of the later 1920s. Gramsci's insight was thus partially correct, when at the end of the decade he wrote, 'What is today called Americanism is in large part the pre-emptive critique of the old strata, who are precisely the ones who will be shattered by the new order, and

⁷⁷ Ernest Mercier, *La production et le travail*, 59–60. Cf. Mercier, 'Réflexions sur l'élite', *Revue des Deux Mondes*, 15 February 1928.

⁷⁸ On Mercier's politics, Kuisel, *Mercier*, 81. For A. F. Poncet: *Réflexions d'un républicain moderne* (Paris, 1925); for the success of American-style capitalism in solving the social question, Flandin, loc. cit., and Giscard d'Estaing, loc. cit. The business 'moderates' who embraced Fordism can be usefully set off against the more radical syndicalists; for their ideas: René Pinon, 'Les nouvelles conceptions de l'état', *Revue Economique Internationale*, October 1929; Sammy Beracha, *Rationalisation et révolution* (Paris, 1930), esp. 38. Georges Valois was a leading exponent of a syndical system that would replace the parliamentary regime. He had started as a disciple of Georges Sorel, participated uneasily in the Action Française, and organized the Faisceau in the mid-1920s, then broke with the Redressement after 1930. For Mercier's denunciation of syndicalism as 'the Soviet method', Kuisel, 72. For the concept of *synarchie* – a conspiratorial view of an elitist and semi-fascist technocracy – which has marked some French discussions of Vichy, Mercier, the 1930s 'X-crise', as well as Clémentel, see André Ullmann and Henri Ayzeau, *Synarchie et pouvoir* (Paris, 1968). Mercier denounced syndical representation as 'the Soviet method' (Kuisel, 72). For a sample of syndical writings see Sammy Beracha, *Rationalisation et révolution* (Paris, 1930), esp. 38.

are already prey to a wave of social panic, dissolution, and desperation.⁷⁹ In fact, the strata involved were not only the old ones, for they included the most dynamic of the entrepreneurs. Nevertheless Gramsci's conception of social defence was justified. A radical Americanism had arisen as a concomitant of war production – production, after all, without effective price and demand constraints – but in the changed conditions a decade later, its social function altered. In different ways, Tardieu and Hoover (and, it might be argued, even Stalin)⁸⁰ took over the most easily manipulated aspects of Americanism, but each came to subordinate its claims as an autonomous social vision to his own ideology. The trajectory of the technological vision ended with the Great Engineer an impotent Depression President and a querulous defender of the propertied classes.

Even at the bottom of the Depression, however, the chiliastic idea of productivity and social engineering could flare again briefly. Howard Scott's Technocracy captured the American imagination in late 1932 and struck a chord in Europe.⁸¹ Scott, an eccentric heir of Gantt and *The New Machine*, had organized a so-called Technical Alliance in 1921, and sold Technocracy as a messianic prediction of energy utilization. Recalling Veblen's contrast of pecuniary manipulation and industrial production, Scott detached real energy resources from the conventions of the price system. Even as he wrote, he said, a corps of engineers was preparing a huge energy inventory that would prepare the way for an age of fabulous leisure. Because of its messianic promise and its recognition of the disequilibrium between industrial potential and real income distribution, Technocracy did respond to felt needs, but it grew not out of the flush of American economic success,

⁷⁹ Gramsci, *Note sul Machiavelli*, 343–4.

⁸⁰ For an introduction to the story of American engineers in Russia during the plan, see Peter Filene, *Americans and the Soviet Experiment, 1917–1933* (Cambridge, Mass., 1966); W.H.G. Armytage, *The Rise of the Technocrats* (London, 1965), 219 ff. But cf. the speech of Bukharin to Soviet engineers in February 1932, reminding them that engineers must still subordinate themselves to the dictatorship of the proletariat, not aspire to a technocracy. Cited Dorfman, *Thorstein Veblen and his America*, 514.

⁸¹ On technocracy, Dorfman, 510 ff.; Howard Scott et. al., *Introduction to Technocracy* (New York, 1933); Allen Raymond, *What is Technocracy?* (New York, 1933); A.M. Schlesinger, jr., *The Crisis of the Old Order, 1919–1933* (Boston, 1957). European comment: Erich Kraemer, *Was ist Technokratie?* (Berlin, 1933); Karl Resar, *Technokratie, Weltwirtschaftskrise und ihre endguel-tige Beseitigung* (Vienna, 1935).

but out of the crisis of capitalism; it exemplified the quackery of despair, not the vision of triumph. In fact, the conditions of the Depression necessarily undermined all Americanist industrial utopias. Economic contraction destroyed the postulates for class collaboration and discredited the managers of the system. At least until the second world war and its aftermath, America's model of industrial productivity lost its catalytic inspiration. Not that Roosevelt's social experimentation would not attract followers, but the supreme confidence in technology and production, in engineering as social redemption, perished with the other dreams of the twenties.

This essay was awarded the Klaus Epstein Memorial Prize, given jointly by the Institute of Contemporary History, London, and Brown University, Providence, Rhode Island.

Editorial Note

As the Journal enters its fifth year of publication, editorial policy must keep pace with its growth. The editors and the editorial board have felt for some time that our concentration upon special issues is unduly restrictive. We have had to exclude many articles which deserved to be published because they did not fit in with the special themes planned for future issues. We now propose to make more room for such articles while continuing to plan for at least one special issue each year. This will enable us to cover a wider field of current research in contemporary history.