## **Review**

## TEKUNOKURÂTO TO KAKUMEI KENRYOKU: SOVI-ETO GIJUTSU SEISAKU SHI, 1917-1929 [Technocrats and Revolutionary Power: A History of Technological Policy in the Soviet Union, 1917-1929]. By Takeshi Nakashima. Tokyo: Iwanami Shoten, 1999. xi+412+29 pp.

This volume examines the relationship between Russian technical specialists who had started their careers in the tsarist era and Soviet power from the 1917 revolution to the end of the NEP and tries to elucidate the changing process of the method and principle of industrialization in Soviet Russia in the late 1920s.

The subject of the technical intelligentsia under the Soviet regime has so far been studied by historians such as S.A. Fediukin, N. Lampert, and K.E. Bailes. However, shedding new light on the same subject, Nakashima analyzes in detail the distinctive world of the engineers and technicians as a social group and their cooperative relationship with the Soviet government during the NEP period. This distinguishes his volume from preceding studies which tended to concentrate their attention on the historical process in the wake of the Shakhty affair in March 1928, when Soviet power oppressed the old specialists and energetically embarked on the making of the new technical intelligentsia. The author believes that it is more important to examine how the social situation surrounding the engineers evolved in the course of the NEP period, especially since the middle of the 1920s, for the purpose of understanding the transformation of Soviet Society in 1928 and thereafter.

Based on detailed analyses of the social situation of the technical specialists in the NEP period, such as their social origin, educational level, age composition, career, wage level, and standard of living, Nakashima notes the "complicated stratification" of the technical specialists and the friction between the old specialists and the new ones who just started to be trained under the Soviet state. However, he puts greater emphasis on technocrats' collective cohesion based on professional identity than on conflicts among them. He suggests that the Russian technical intelligentsia during the NEP, most of whom had received education in higher technical institutes of the tsarist era, retained many common features in their thought and behavior. Moreover, new specialists also tended to share a similar mentality and identity with the older generation as a result of the technical education they received.

A further valuable analysis is concerned with the patterns of thinking which the Russian technical specialists had in common. The author calls this "the ideology of engineers." This ideology consisted of the engineers' concepts, such as "technical approach for rational solution of social problems" and "pursuit of social order based on technical rationality," reflecting a technocratic trend of thought that was also observed in the forms of Taylorism and other "scientific management" in Western countries in the same period. Since Soviet power was very concerned with raising productivity based on scientific management, the technical specialists were able to share common purposes with the government. In particular, the economic planning and industrializa-

tion that the Soviet government promoted was in harmony with the aims that the engineers pursued. This is why the idea of socialism and the ideology of engineers coexisted peacefully.

The author examines in detail the thoughts and behavior of some leading engineers, including P.A. Pal'chinskii, a well-known mining engineer. Pal'chinskii, a higher technocrat in the Tsarist and Provisional Governments, had been arrested for being one of the anti-Bolshevik activists and defenders of the Winter Palace in October 1917. However he remained in Soviet Russia to continue working actively for the resurgence of the Russian national economy. He believed that the 20th century was "the century of engineers" and that they could and must play a leading role in state building, and had a strong influence upon many Russian engineers. According to the author, however, Pal'chinskii insisted on the necessity of "humanitarian engineering" (Loren Graham), which is beyond the mechanical arguments of Taylorism. Nakashima makes a valuable contribution by elucidating a variety of scientific and ideological activities of Russian engineers through the All Russian Association of Engineers during the NEP period.

The author traces the complicated mutual relationship between technical specialists, enterprise managers, and workers in the NEP period. Although Bailes, Lampert and others have already taken up these issues, it is unique that the author pays so much attention to the engineers' working environment which was changing after the industrialization policy begun in the mid-1920s. He shows how the introduction of a rationalization policy to accelerate industrialization gradually made the technical personnel's relationship with managers and workers worse. In particular, he follows several cases of indictments and trials against technical specialists in the period preceding the Shakhty trial in 1928 and demonstrates how these cases damaged the working environment of the technical staff. In this context, the year of 1927 was fateful, when a Marxist organization of scientific-technical intelligentsia (VARNITSO) was organized and the charter of Academy of Sciences was modified, which afterwards led to the Sovietization of the Academy.

On the basis of archival documents Nakashima describes the political process after the Shakhty affair, the disturbance of the production order and the Soviet power's oppression of the engineers. In his conclusion Nakashima provides a hypothetical view of the situation of engineers under the Stalinist regime of the 1930s, which causes me to raise some questions. First, Nakashima argues that the oppression after the Shakhty affair greatly influenced the thinking and behavior patterns of Russian technical specialists, resulting in the "shrinkage of creative mind" and uncritically adaptable attitudes towards command from above, and that this became an important factor which for a long time characterized the Soviet technical intelligentsia and science and technology as a whole. He finds in this fact one of the reasons for the imbalanced and distorted development of economy, technology and science throughout the whole period of the Soviet Union. This view is understandable in general, as previous studies have argued largely in the same manner. Nevertheless, Nakashima seems to overestimate the technical intelligentsia's "shrinkage" and passiveness under the Stalinist regime. Recent studies of the 1930s have revealed various attitudes of the people towards the regime. For example, S. Fitzpatrick argues in her new book, Everyday Stalinism, that a type of people with a gambling mentality emerged because their obedience to the authorities

## Yasuhiro Matsui

never guaranteed their security and therefore they had to adopt various ways to survive under turbulent circumstances after the revolution from above. She suggests that some enterprise managers, in particular, were regarded as risk-takers even by their contemporaries. In my view, the technical staff might also possibly have belonged to the same category.

Second, Nakashima argues that the oppression of the engineers and technicians who had supported the industrialization policy from the viewpoint of technical and economic rationality, changed the methods and principles of industrialization. He names this newly-principled Soviet industrialization "mass mobilization-style industrialization." I am afraid, though, that this fascinating and useful term might provide an excessively irrational image of Soviet industrialization. It is certainly true that Soviet industrialization started with an extraordinary, "irrational" form from the economic and technical point of view. Mass mobilization-style industrialization, however, seems to have had another type of rationality in the sense that it was aimed at transforming the amorphous mass society during the NEP period, which had resulted from the incessant process of modernization, wars, and revolutions since the late nineteenth century, into a new order.

In short, some of the author's views and conclusions might need to be reconsidered in the light of the new historical findings concerning the 1930s. However, this expectation might be beyond the author's intention, which was targeted at dealing mainly with the period to the end of the 1920s. Without doubt this volume is an excellent work on the technical intelligentsia during the period from the 1917 revolution to the revolution from above.

Yasuhiro Matsui