Engineers and Their Allegiances

Technical Workers in an Advanced Society. The Work, Careers and Politics of French Engineers. STEPHEN CRAWFORD. Cambridge University Press, New York, and Editions de la Maison des Sciences de l'Homme, Paris, 1989. viii, 284 pp. $49.50.

In the political ferment of the 1960s, a number of French sociologists, most notably Serge Mallet, developed the theory that technical workers constituted a "new working class." They rejected the traditional socialist view that blue-collar factory workers would be the backbone of leftist or radical politics. Instead, they saw technical workers as the natural constituency for a rejuvenated socialist politics, centering on the goal of "autogestion," or workers' self-management. Mallet and others believed that such workers were more likely to rebel against the constraints imposed by bureaucratic authority and profit-making because such constraints contradicted technical workers' skills, technical values, and responsibility on the job.

Stephen Crawford's *Technical Workers in an Advanced Society: The Work, Careers and Politics of French Engineers*, written 20 years after the events of 1968, is, in part, an attempt to test empirically the "new working class" thesis in the country where it was first enunciated. It also sets out to test and evaluate a number of other influential sociological theories regarding engineers and other professionals, ranging from the view that they are being "proletarianized" (that is, that their skills are being eroded by new technologies and managerial controls) to the view that they form part of a "service class" of trusted workers to whom employers delegate responsibility. Perhaps the most interesting aspect of Crawford's work, however, is that it is part of a larger, comparative study, carried out by three graduates of Columbia University, of technical workers in three industrialized countries. The interested reader should read this book in connection with the other studies, which have already appeared: Robert Zussman's *Mechanics of the Middle Class* (1985) on the United States and Peter Whalley's *The Social Production of Technical Work* (1986) on Great Britain.

Crawford pursues the same research strategy employed in these other studies. He selected two companies—a traditional metalworking firm and a "modern" electronics and telecommunications firm—and conducted interviews with a total of 129 engineers regarding their work, careers, and politics. In this way, he hoped to test whether the advanced sector really did house a radical new working class of technical workers and to make comparisons among French, British, and American industry.

There is little support in Crawford's findings for the new working class theory. Echoing the companion studies on the United States and Britain, he concludes that there were relatively few differences between engineers in the metalworking and telecommunications firms; what differences there were are explained in terms of factors other than the industry's "advanced" or "traditional" character. Nor is there much evidence of radicalism among French engineers. Though some are more leftist than their British or American counterparts, they tend to accept the legitimacy of management and profit-making and show little interest in "autogestion."

The cross-national dimension of the study yields more interesting results. Crawford makes much of the fact that many French engineers are classified as "cadres," a legal category with certain rights and privileges in French society. This, plus the traditional career path from the "grandes écoles" through engineering into management, tends to tie many French engineers to management. By contrast, Whalley found a less managerial orientation among British engineers, in part because of their relative lack of formal training. Zussman argued that American engineers see themselves as part of a "working middle class" that includes blue-collar workers, in part because of mixed-occupation residential and home ownership patterns. All three studies make a strong case that engineers' sense of their place in the class structure is formed away from work at least as much as it is at work.

Crawford's focus is clearly on the politics of engineers and rather less on their work itself. He does not try to provide a detailed description of what French engineers do or how their work lives compare to those of engineers in other countries. As a result, there is not much here that would shed light on debates regarding the best conditions for promoting creative, high-quality engineering. Nevertheless, Crawford's book, along with the other two national studies, suggests strongly that making engineers happy may not be so difficult as it is sometimes made out to be. The portrait of engineers that emerges from this research is of a group of employees who wish to be allowed to decide how to do their jobs, who want a bit more influence over decisions that affect them directly, and who accept the need for some kind of managerial coordination (indeed, they resent nothing more than a "bad" manager). Discontent seems to be concentrated largely in individual firms or workplaces, or at the lower levels of the technical hierarchy. For the time being, at least, French engineers, and their British and American counterparts, appear relatively content.

There are some stormclouds on the horizon, however. Crawford points, for example, to the rapid expansion of lower-level engineering jobs staffed mainly by graduates of the less prestigious engineering schools as well as to the growing instability of industrial employment resulting from technical change and international competition. He is generally inclined to dismiss the view that the position of the engineer is being eroded in any significant way; time will tell whether he is right to minimize the potential threat.

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Sciurid Sociality

Marmots. Social Behavior and Ecology. DAVID P. BARASH. Stanford University Press, Stanford, CA, 1989. xviii, 360 pp., illus. $49.50.

Barash notes that appealing features of marmots as study subjects include their "good grace to hibernate during the academic year" and their tendency to live "at or above timberline in some of the world's most beautiful mountains." More important, marmots are the largest members of the ground-dwelling sciurids and, like their smaller relatives, the ground squirrels and prairie dogs, they are diurnal, sedentary, and occupy relatively open habitat. Consequently, they are ideal subjects for observational studies that focus on activity budgets, social behavior, social organization, and population biology. This book compiles such information, primarily garnered from studies conducted since the early 1970s.

Barash's approach is avowedly sociobiological. Because studies of Eurasian marmots tend to emphasize habitat description, anatomy, and economic impact, the treatment necessarily is focused on those North Ameri-