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EDITORIAL CORRESPONDENCE: 1515 Massachusetts Ave., NW, Washington, D.C. 20005. Phone: 202-387-7171. Cable: Advancesci. Washington. Copies of "Instructions for Contributors" can be obtained from the editorial office. ADVERTISING CORRESPONDENCE: Rm. 1740, 11 W. 42 St., New York, N.Y. 10036. Phone: 212-PE 6-1858.

## Mainland China: An Emerging Power

Mainland China has substantial natural resources and a tremendous human potential. Although only modest progress has been made in the development of material resources, great steps have been taken in achieving the intellectual status necessary to sustain an advanced technology.

What is the intellectual potential of the Chinese? It seems great. The 1960 U.S. census figures show that there were 135,000 Chinese men in this country. Yet from this small number have come many university faculty members as well as members of other professions. The U.S. census figures for different racial groups show the following comparison, on the basis of professional manpower per thousand of the group's male population: engineers, white, 10.8, Chinese, 26; natural scientists, white, 1.7, Chinese, 5.0. Behind these figures are positive and negative factors of many kinds; nevertheless, the performance of the Chinese in our environment is impressive. What will be their performance in the environment of the Chinese mainland? The present regime has both helped and hindered the development of China. Some of the ideological handicaps are alluded to in an article appearing in this issue of *Science* (page 392). However, there has also been great progress.

In 1949 there were only about 50,000 scientists and engineers in mainland China. In the period 1949-63, some 671,000 Chinese students graduated from colleges and universities, with majors in natural sciences, agriculture, medical sciences, or engineering. A recent congressional report indicates that a broad educational base has been established in China. The report\* states:

The number of children and young adults in full-time educational institutions today is five to seven times the school enrollment in 1949. The number in primary schools has jumped to over 100 million, including almost all urban children and a great majority of rural children. . . . If the word "school" is extended to include part-time education . . . China may be said to be just one great big school.

Fruits of this educational effort are appearing. The committee document states, "A Canadian doctor who has recently visited China's medical colleges, hospitals and research institutions reported that he had found good equipment, high medical standards, excellent medical care . . . 'almost all comparable to Canadian standards.'" A British physicist, K. Mendelssohn, writing in the 1 July issue of *Nature*, reports seeing in China many locally manufactured products, such as diesel-driven trains, electric generators, gas turbines, machine tools, and electronic gear. He also noted electron microscopes, precision balances, and computers. At the Institute for Solid State Physics he was shown superconducting solenoids of niobium-zirconium and of niobium-tin. He also saw equipment for producing artificial diamonds of a size and quality similar to those made in the West.

Today 80 percent of the population in China is engaged in agriculture. Although energy sources such as coal are abundant, electric output now is only about 4 percent that of the United States. Soon all this will change and China will become a great power. Will mainland China then be a menace to all mankind, or will she return to a long tradition of noninterference in the affairs of others?—PHILIP H. ABELSON

\* "Mainland China in the World Economy," *Report of the Joint Economic Committee, Congress of the United States* (Government Printing Office, Washington, D.C., 1967); see also, "An Economic Profile of Mainland China," *Studies Prepared for the Joint Economic Committee, Congress of the United States* (Government Printing Office, Washington, D.C., 1967).