This report is to clarify the characteristics of Japanese scientific profession, which was created through the modernization policy of the Meiji oligarchy government in the late nineteenth century. This event of creating such a new profession may be marked as the first such event in the non-Western world.

1. OLD PROFESSIONS

Under the preceding Tokugawa regime, a number of local fief governments had maintained loosely subordinate feudal relations with the central Shogunate government. At the top of the class hierarchy, the samurai, comprising approximately five per cent of the total population, enjoyed the most prestigious positions and were separated by distinctive differences of social status from other inferior classes - farmers, artisans and merchants. The samurai were primarily administrative bureaucrats employed in either the Shogunate or fief governments.

The dominant intellectual profession was that of Confucian scholars, whose teaching encompassed a wide range from politics to personal ethics. The specialized scientific professionals of the time consisted almost entirely of medical practitioners, traditional mathematicians and a handful of Shogunate astronomers.

Many Confucian scholars maintained private tutorial schools, but gradually these private schools were put under government sponsorship, and many of them in the nineteenth century were turned into governmental schools in which the Confucian scholars became the teaching faculty. At times, they also served as governmental advisers on political affairs.

Some of the top-notch doctors received a sort of professional title, but there was no licence system for practising medicine; that is, in the medical profession, there was no guild autonomy to exercise authority for enforcing a licence system and to exclude the unlicensed. Some doctors were employed by the central or fief governments, the top ones for the Shogun and feudal lords and most of the others for the average samurai class, but their revenue largely depended on private clinics. Even the most famous ones ran private schools and clinics in big cities like...
THE ORIENTATION OF SCIENCE AND TECHNOLOGY

Edo and Kyoto without having any relations with the governments. They were much more free-lance-minded than the Confucian scholars.

Traditional mathematicians found their financial basis in teaching at private school to all classes of people, but the mathematical group was much less vocationally established than other professions. At their schools, they issued academic degree certificates, but these were not necessarily professional licences for practising or teaching. Their fame and prestige was mainly based on leading a special group of mathematical talents whose approach to mathematics was recreational rather than for practical applications. Traditional mathematics was supported by disinterested dilettantism.

Astronomy was purely a governmental enterprise to issue official calendars. The positions of the Shogunate astronomers were hereditary. At the time of big events like calendar reforms, the government recruited talents outside of hereditary astronomers when no talent was found in the latter and usually created new posts within the Shogunate's Bureau of Astronomy for them.

Under the feudalistic regime, there was, as a rule, no social mobility among different classes. An inherited stipend was the most important criterion for judging one's social status. In such a society, even professional activities were very much conditioned by hereditary institutions. All governmental posts, astronomers, Confucian scholars and medical doctors alike, were inherited ones. When they could not find proper talents for carrying on professional duties among their offspring, they usually adopted talented sons-in-law. The mathematical tradition, which required a special talented genius, was most free from the hereditary system, compared to other professions.

2. DEMISE OF THE OLD PROFESSIONS

In 1868 the old Shogunate-fiefs regime was terminated. In replacing it, the new Meiji oligarchy government started with centralizing all administrative functions. The old class hierarchy and particularly the special status given to the samurai class were taken away. Accordingly, the character of the scientific community in Japan underwent a transformation.

All the former governmental posts were categorically abolished. The functions of the Shogunate astronomers were suddenly discontinued. Under the new regime, Confucian study lost its former prestige of being the official learning, and consequently most of the Confucian scholars became teachers in the primary and secondary schools under the new modern educational system. The new government, with its Westernization policy, favoured Western medicine over the traditional Chinese-style medicine. Under the new circumstances, traditional medical practitioners formed a guild in opposition to the adoption of Western medicine at the administrative level, and they waged a desperate political campaign to obtain the favour and recognition of the government up until the 1880s, but traditional medicine was eventually illegalized and forbidden the right to issue licences for practising medicine by government decree.

As Western mathematics gained official sanction in the new educational system, traditional mathematics was excluded from the curriculum of the modern Westernized educational structure. Only abacus calculation remained