II. OUTCOME OF THE STUDY GROUPS -- SUMMARY

1. URBAN SOCIETY

1. Urban residents' development of adaptive skills -- Shogo Koyano
2. Studies of the urban lower class and housing of the poor -- Hiromichi Ishizuka
3. The early history of controlling water-borne diseases in Tokyo -- Hiromichi Ishizuka
4. The lower classes and mass riots in a provincial city -- Tetsuya Hashimoto
5. Urban problems and the establishment of the Keihin industrial zone -- Hiromichi Ishizuka
6. Urbanization and the real estate business -- Isao Hatate
7. Urban life in modern Japan -- Kiyoshi Nakagawa
8. Development of the chōnaikai in prewar Japan -- Hachiro Nakamura

The research group made a multi-perspective examination of the changes in urban society concomitant with industrialization. In particular, it took up subjects such as living conditions of the poor, the emergence of a "new" middle class (the nucleus of which consisted of low- and middle-level salaried workers), and the partial transformation in the factory worker strata from traditional artisans and odd-job workers.

Koyano delves into the various characteristics of the Japanese city. He gives special attention to the function of streets, stating that rows of houses facing each other on both sides of a street formed one unit of the machi (town) and autonomous organizations known as machigumi (town associations) emerged at an early stage on the basis of this configuration. When Edo (now Tokyo) began developing at the end of the sixteenth century, warriors' residences, shrines, and temples were located on the heights west of Edo Castle, the residence of the Shogun, while the downtown area on the east side, facing the sea, was allocated to merchants and artisans. At the time, streets were planned to harmonize with the natural view. For example, the downtown trunk streets radiated out from the castle and their angles were laid so that pedestrians could look up and see the heights at close range and the mountains in the distance.

Koyano points out that an influx from rural villages continued to swell the Edo population. Despite repeated bans on migration, the population reached 1 million around 1720. The majority came to the city in search of jobs and settled in back-street tenements called ura-nagaya or simply nagaya. Urban slums also developed along the highways and were populated by the poor who could get only odd jobs. Estimates are that over half of the 500,000 people in downtown Edo were a part of this indigent strata. Koyano also says that many of the poor, triggered by famine, took part in urban unrest and vandalism. He states that the influence of pre-Meiji movements by the poor on urban riots in and after Meiji has yet to be adequately explicated.

Ishizuka's first paper examines the changes that took place in urban social strata during the period beginning with Japanese industrialization and lasting until after the First World War. The author states that the proportion of low-grade housing (mainly tenements) in the total for the entire Tokyo city area was 50 to 60 per cent during the latter half of the nineteenth century. There were at least 110 slum sites resulting from tenement density.

To counter this concentration of slum areas, the government began the construction of a modern Western-type city, the expressed objective being the clearing of slums and the fire-proofing of the entire city. But the goal was achieved only in a limited area and a lack of funds forced the government to discontinue the project. From that time on, Tokyo has been allowed to expand willy-nilly without any comprehensive planning.

Tenements in Tokyo were frequently destroyed by fire, and their owners estimated that the buildings would be visited by such calamities in three to five years. Such dismal forecasts prevented them from constructing any but the cheapest wooden structures and allowed the landlord to recover his initial investment within the estimated period. The attitude was responsible for a vicious circle in which damage by fire usually consumed wide areas of similarly shabby dwellings. Another aspect of this construction-on-the-cheap attitude was the close-range installation of wells and toilets for common use by the residents, unsanitary and frequent sources of disease and epidemic. On the other hand, the ethos that emerged from the nagaya system induced a quasi-parent-child relationship between landlord (usually a live-in superintendent acting as agent for the landlord) and tenant and a strong sense of community consciousness, based on mutual help, between residents.

Ishizuka further states that at the beginning of the twentieth century and the emergence of mechanized factories, living conditions in the nagaya improved gradually as the row houses became the homes of factory workers with relatively stable income.

In his second paper, Ishizuka points out that when the country and its ports were opened, great epidemics of cholera, dysentery, and typhoid were frequent, and that residents of the back streets were often most seriously hit. The slums, in particular, had extremely high death rates from tuberculosis and water-borne contagion. Although there was a strong demand for some sort of public health system and for larger numbers of clinics and hospitals, the only measures taken were to isolate patients in quarantine hospitals. The lack of an effective response was due in part to the limited knowledge of that period as to the cause of infectious diseases and also to the attitudes of Japanese doctors, 80 per cent of whom had been trained only in the techniques of Chinese medicine. But the wide prevalence of water-borne diseases gradually diminished as doctors trained in the practices of modern medicine increased in number, health facilities and hospitals were established, and water supply systems were improved.

By comparing the poor in the metropolitan areas with those in provincial cities, Hashimoto states that the metropolitan poor consisted in large part of male bachelors who were mobile and unrestricted in occupation or residence while the provincial urban poor were families led by men who had no choice but to stay in their communities. Thus, when the provincial poor were forced out of their areas they had to migrate to the larger cities. There was no reverse trend of poor people migrating into the provincial urban areas.

Hashimoto then examines the characteristics of mass uprisings in the provincial city. His case study is the 1918 rice riots in Kanazawa, a city with low population growth and main industries of the traditional type. Artisans were at the nucleus of these riots and their actions were well organized. The rioters are assumed to have acted in concert with their town or community, a group with which there were strong feelings of solidarity and mutual assistance. Another assumption is that the groups were able to communicate and exchange information in a number of different ways.

Ishizuka's third paper shows that new urban problems were created with the establishment of heavy industry in metropolitan and suburban areas at the beginning of the twentieth century. Kawasaki (between Tokyo and Yokohama) was a littoral industrial zone partially built on large areas of reclaimed land. Steel mills, tube works, electrical equipment manufacturers, machine factories, shipyards, and chemical plants were set up in Kawasaki at the invitation of city fathers eager for economic development. Knowing the possibilities of industrial pollution, the invitations were issued to factories that would not create environmental hazards or would compensate for any damage that was caused. The economic upswing of the First World War was the opportunity solidifying the foundation of heavy industry in the area. On the other hand, sudden increases in the factory labour force resulted in housing shortages, a lack

of adequate water and sewer systems, and insufficient transportation for commuting. The city first compiled by extending the water system.

Development of heavy industry concentrated population in the cities and brought on all the other problems of modern urbanization. Housing near the factories was occupied and workers looked for newly developed homes in areas farther out. Also, to satisfy the need for housing for the "new" middle class, residential areas were newly developed and electric street car lines connected these areas with the centre of the metropolis and the factory zone. Hatate notes that the sudden increase in housing demand and soaring land prices were a boom to the real estate business which grew by leaps and bounds during this period.

Based on surveys of household economies, Nakagawa analyses the changes that occurred from the end of the nineteenth century to 1940 in the living conditions of the "new" urban middle class (low- and middle-level salaried workers), the factory worker, and the poor. By the end of the nineteenth century, the average standard of the urban consumer had turned upward and even people in the lower strata were able to eat solid rice instead of rice gruel and pay their rent monthly instead of daily. The people of the lower strata could now afford to settle in the city, raise a family, and have a home, although not a permanent one.

The Engel's coefficient for households dropped to under 70 per cent in the lower strata and from 50 to 40 per cent in the "new" middle and factory-blue-collar classes. This does not mean a total amelioration of living standards, because these groups were usually faced with the predicament of having to curtail food expenditure to meet other expenses necessary to urban life. Sharp increases in food prices worsened the situation. The tension of making ends meet worsened the sense of destitution among the urban middle and lower strata and was a fundamental factor in the mass urban uprisings from the beginning of the century through the First World War.

After the war, however, increases in real wages and stability in commodity prices more than doubled the consumption standard of the lower urban strata over the levels at the end of the nineteenth century. These economic factors made it possible for the lower strata to settle in the cities with their families. Nakagawa concludes that the nagaya began to decline in influence and the poor were no longer concentrated in slums but spread throughout the city.

Nakamura emphasizes the role of the chōnaikai (neighbourhood associations) as organizations peculiar to Japan. Many chōnaikai were formed as institutions to promote neighbourhood communality during festivals, births, marriages, and deaths. However, some developed at the beginning of the twentieth century out of sanitation associations originally established by the government to aid in the prevention of cholera and other epidemic

disease. Many chōnaikai in Tokyo were organized to help out in the aftermath of the Great Kanto Earthquake of 1923. According to a 1936 survey, there were about 3,000 chōnaikai in Tokyo to which 90 per cent of the 1,050,000 households belonged. Nakamura says that the prewar chōnaikai had to assume a liaison function with health authorities, the police, and local government and public offices. As a result, the administration role of the chōnaikai was intensified and they were increasingly called on to get out the vote for local assembly elections.

2. RURAL SOCIETY

1. Irrigation and rural society in Japan -- Akira Tamaki
2. The development of irrigation technology -- Isao Hatate
3. Land improvement policies in modern Japan -- Naraomi Imamura
4. Land improvement projects and increase in productivity -- Keijuro Nagata
5. Creek irrigation system and the local society: case study -- Yoshito Jinnouchi
6. Irrigated farming in Hokkaido: case study -- Chosei Shichinohe
7. The development of market economy in rural society -- Takashi Tomosugi
8. The role of the state in irrigation development -- Shigemochi Hirashima

Well before the Meiji Restoration, Japanese rural society based on wet-rice agriculture was characterized by complex irrigation systems established to control local water resources. Tamaki's research points to the traditional institutionalized arrangements that existed between villages and between members of the same village to maintain water-control systems as one of the salient features of Japanese rural life. Japan never knew the great irrigation projects undertaken in China by a despotic centralized state. Rather, the shogunate and fief governments contributed indirectly to the support of irrigation systems by leaving the villages free to regulate water use locally as custom dictated while insuring the maintenance of the traditional social order.

The self-reliant system of water control that evolved in rural society was able to adapt naturally to the Meiji government's policy of state-led modernization. Traditional water-control practices were not destroyed, and this made possible the implementation of large-scale irrigation projects and the modernization of farm management.

At the heart of the irrigation system developed during the Tokugawa period was the common water users' league formed by villages as a constituent member. Water control was based on traditional water drawing