PREFACE

The international symposium titled "Japanese as a Member of the Asian and Pacific Populations" was held on September 25-29, 1990, at Shin-Miyako Hotel in Kyoto under the sponsorship of International Research Center for Japanese Studies (IRCJS). Participants were specialists in physical anthropology, human and animal genetics and archaeology, representing Japan and three overseas countries: Canada, China and the United States.

The style of conference differed from previous IRCJS symposia in two ways. First, English was the official language throughout the four-day academic sessions. IRCJS organized three international symposia under the common title "Japan in the World" since it had been inaugurated in 1987. Participants in these symposia were mostly cultural scientists who spoke Japanese quite fluently so that Japanese was adopted as an official language. However, the world of natural scientists is different. As they share common technical terms, methodology and objective data, English is more useful as an official language than Japanese. In addition, IRCJS has to have such an experience because it is an international research center.

Secondly, the 1990 symposium was planned as part of the on-going joint research on "The Fundamental Structure and Natural Background of Japanese Culture" organized by K. Hanihara. According to the IRCJS rule, every professor has to organize an interdisciplinary research project and international symposium related to his/her research project. However, the symposia on "Japan in the World" had no relationship to particular project but concerned with general ideology of Japanese studies since all the research projects were still at the beginning. The 1990 symposium was, therefore, the first case which was organized in accordance with the rule of IRCJS.

The purpose of 1990 symposium was to discuss the affinities and origins of the Japanese population in due consideration of surrounding populations in the Asian and Pacific areas. Although specialities were different with one another, all the participants had enough experience with investigation on populations and culture in these areas. The discussion was, therefore, not focused on individual evidence but on basic elements which formed Japanese population and culture.

The conference consisted of four sessions: metric and nonmetric skeletal morphology, dental anthropology, human and domestic animal genetics, and prehistoric archaeology. Participants took the chair of each session by turns and associate professors of IRCJS helped them as co-chairs. On the last day of the conference, Saturday, 29 September, the opening address of Takeshi Umehara, director-general of IRCJS, and three public lectures were given before some 500 audience at the Kyoto's most famous and oldest Miyako Hotel. The lecturers were Christy G. Turner II of Arizona State University, Shuzo Koyama of National Museum of Ethnology, and Kazuro Hanihara of IRCJS with the following titles:

C. G. Turner II, The Origins of the Japanese and Ainu: The Dental Evidence.

S. Koyama, From Jomon to Yayoi: An Ethnoarchaeological Perspective.

K. Hanihara, The Formation of the Japanese Population.

The first day of the symposium, Tuesday, September 25, started with papers on skeletal morphology. Wu Xinzhi stressed the opinion that the Minatogawa man, Upper Palaeolithic people from Okinawa, had originated in southern China instead of northern China; and Jomonese, Japan's Neolithic people, were closer to Minatogawa man and Liujiang man from southern China than to Wadjak man. The ancestors of Japanese were, therefore, closely re-

lated with the early populations in southern China. Comparing cranial measurements from the Asian, Australian and Pacific groups Michael Pietrusewsky revealed that the Jomon-Ainu crania were distinct from modern Japanese and other East Asian populations, and pointed out that Southeast Asia might have served as the ultimate homeland of both Polynesians and modern Japanese. Based on the cranial measurements Bin Yamaguchi concluded that the homeland of Jomonese was in the southern part of East Asia, but a majority of modern Japanese were descended from migrants from Asian Mainland who settled Japan after the Yayoi age, or around 300 B. C.

The morning session of the second day, Wednesday, 26 September, focused on nonmetric cranial traits. Based on her extensive studies Nancy Ossenberg pointed out Ainu's strong genetic heritage from Jomonese and a southwest to northeast gradient in recent Japanese which seemed to be resulted from the Yayoi immigrants from the Asian Mainland. She also pointed out a close similarity between the Aleut-Athapaskan-Inuit gradient and the Ainu-Kanto-Kinki gradient in modern Japanese. Hajime Ishida and Yukio Dodo summarized that modern Japanese were similar to the inland Mongoloids and none of the Siberian Mongoloids had affinities with either Jomonese or Ainu. Yoshiatsu Naito presented the results obtained from the Yayoi skeletal remains from Kyushu, concluding that the Yayoi population from Northwest Kyushu showed evident similarity to Jomonese, whereas that from North Kyushu was genetically influenced by the people immigrated from the Asian Mainland.

The afternoon session concerned with dental anthropology. Christy Turner's paper focused on the marked differences in dental morphology that occur between Jomonese-Ainu group and the Japanese after the Yayoi age, suggesting a dual origin for the peopling of the Japanese islands. He also pointed out that the Jomonese-Ainu group could be traced to an origin in Southeast Asia more than 17,000 years ago, while Japanese after the Yayoi age may have originated in South China. Yuji Mizoguchi discussed the relationship between tooth size and diet, finding that tooth size was the subject of natural selection through difference in diet. Tsunehiko Hanihara compared cranial and dental data from the Pacific, Oceania, Asia and Japan, indicating that Jomonese, Ainu and Amami-Okinawa islanders were closer to Southeast Asians than to Yayoi and modern main-island Japanese. He also suggested that a unique dental morphology of Australian Aborigines could be referred to as 'proto-sundadont' dental pattern according to Turner's system of terminology.

The third day of the symposium, Thursday, September 27, was concentrated to evidence in genetics. Keiichi Omoto summarized his genetic surveys covering the areas of Japan, East Asia, Australia and the Philippines. He recognized, on the basis of gene frequency cline, the Mongoloid origin of Ainu, large influence of the continental Mongoloids on modern Japanese, smilarity between Ainu and Ryukyu (Okinawa) people, etc. Satoshi Horai reported the results of amplification of mitochondrial DNA from a 6,000 year old Jomonese skull. The mtDNA sequence was identical to that of modern Southeast Asians but not to modern Japanese, suggesting the probable homeland of Jomonese. The paper presented by Yuichi Tanabe concerned with genetic and morphological studies of Japanese dogs. He found that dogs in Hokkido and Northeast Japan derived from those brought by Jomonese from Southeast Asia, while dogs in Southwest Japan were genetically similar to those in Korea, suggesting a close relation to the peopling of the Japan islands.

On the last day of the symposium, Friday, September 28, five papers were presented by

archaeologists. Reviewing cultures from the Palaeolithic to Neolithic, An Zhimin stressed the opinion that the Palaeolithic culture was introduced to Japan through several different routes; the Jomon culture had a close relationship to that of coastal region of southeastern China; and the Yayoi culture resembled that of Central China, or the region south of the Yangtze River. Shuzo Koyama estimated the prehistoric population size of Japan using a subsistence-demographic approaching method, finding out that the most remarkable change in population size was an explosive increase in the Yayoi age caused by introduction of irrigated rice field technique. Makoto Sahara introduced a concept termed 'ancientization' which means the process to get into the ancient history characterized by social stratification, emphasizing that Japan achieved the 'ancientization' in the period as early as the Jomon age. He also presented the opinion that the influence of the Jomon culture still retained in modern Japanese, although the Jomon culture had drastically changed in the Yayoi age.

In the afternoon session the subject was changed to the Pacific archaeology. Yoshihiko Sinoto summarized evidence for migration routes of Polynesians and Micronesians on the basis of archaeology, linguistics and physical anthropology. He attracted special attention of participants to some pottery fragments from the New Hebrides which were similar to the Jomon pottery. The influence of the Jomon culture to the Pacific area should be discussed in the future. Hiro Kurashina gave a preliminary report on the excavation now on-going at Gognga-Gun Beach, Tumon Bay, Guam. The site was made in the Latte cultural phase before the 17th century, and expected to allow detailed description of the culture, society and populations of ancient Chamorros on Guam. Bruce Anderson, Kurashina's co-worker, reported on nearly 150 skeletal remains from the site. This skeletal population was characterized by the high incidence of various pathological and anomalous conditions of both dentition and skeleton. Papers on the Pacific archaeology presented were important because the peopling of the Japanese islands was influenced by the migration of the early Asiatic people as in the case of the Pacific populations. The population history of Japanese cannot be analyzed, therefore, by ignoring that of the Pacific.

The final paper was presented by Kazuro Hanihara. Reviewing the long debates on the origin of Japanese and various evidence related to physical anthropology from the Palaeolithic to modern ages, he proposed 'dual structure model' for the population history of Japanese, which implies admixture of South Asian and North Asian elements after the Yayoi age. This idea was almost identical with that proposed by Turner, although approaching methods were different with each other.

In an essay written for the Nichibunken (IRCJS) Newsletter (No. 8, February, 1991), Prof. Turner of Arizona State University summarized the symposium as follows:

> The main and most exciting conclusion that immediately comes from this landmark international symposium is the abundant diachronic biocultural evidence for a southern origin of the Jomonese — most likely Southeast Asia, long before 12,000 years ago — and a late mainland origin for the Yayoi-Japanese migrants, who admixed to some degree with the Jomonese aborigines.

As Prof. Turner says, the symposium was successful because all the papers with different methodology agreed with each other in the general view of the population history of Japanese. Discrepancy which came out clearly through discussions was another important fruit of the symposium in a way that it suggests us the right direction of the future research.

Finally I am deeply indebted to all the participants who presented the results, views and discussions of special importance on the population history of Japanese. Sincere thanks are due to Director-General Takeshi Umehara, Professor Shuntaro Ito who took the chair of the public lectures, associate professors who cochaired at the sessions, organizing committee members, and all other IRCJS staff members for favorable proceedings of the symposium. I hope that this symposium volume contributes, as a milestone, to the future studies on the Japanese, Asian and Pacific populations.

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Organizer and Editor