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PREFACE

Almost a century has passed since the teaching of geography was initiated at universities in Japan, and more than fifty years have passed since the founding of the Association of Japanese Geographers, a scientific organization for geographical studies. There is, thus, a long tradition of modern geography in Japan. A number of studies have been published in the past several decades, especially after World War II, with the increase in the number of professional geographers in universities and other research organizations. These studies have been published, besides, in book form, and also in the form of papers appearing in various geographical bulletins issued by national and local societies and associations. They constitute significant reference sources regarding Japanese geography and the teaching of geography in Japan. Most are written in Japanese with only short abstracts in European languages. Unfortunately the distribution of such studies is restricted almost entirely to Japan, and consequently, few results of research by Japanese geographers are presented to the world at large.

It is possible to trace this accumulation of studies in bibliographies such as those published by the *Jimbun Chiri Gakkai* (The Human Geographical Society of Japan).^{*} Bibliographies of reference books for Japanese studies written in English list a rather limited number of writings by Japanese geographers; these bibliographies include the *Bibliographies of Reference Books for Japanese Studies* which were published in English by the Kokusai Bunka Shinkokai (The Society for International Cultural Relations, 1962), and the *Introductory Bibliography for Japanese Studies*, which has been published annually since 1974 by the Kokusai Koryu Kikin (The Japan Foundation). Also, international bibliographies of geography published abroad, such as the yearly *Bibliographie Geographique Internationale* (CNRS, Paris) and the monthly *Referativnui jurnal* (Vsesoyuznui Institut Nauchnoi i Tekhnicheskoi Informatsii, Moscow), list some papers published in Japan though these appear only in a very limited kind of periodical. To this extent, a small number of contributions by Japanese geographers are referred to in several international periodicals published in foreign countries.

In recent years, there have been increasing numbers of geographical bulletins published in European languages by several universities in Japan. Due to the nature of these publications, however, their circulation is rather limited. In 1958,

THE HUMAN GEOGRAPHICAL SOCIETY OF JAPAN (JIMBUN CHIRI GAKKAI) *Geographical Bibliography (Chirigaku Bunken Mokuroku)*. Vol. I–VI., 1953–1978, Vol. I–III Yanagihara Shoten, Kyoto, Vol. IV–VI, Taimeido, Tokyo

the proceedings of the IGU Regional Conference held in Japan in 1957, were published.* This conference, where approximately seventy papers on Japanese geography were presented, was significant because it introduced to the world the geography of Japan, as well as the results of research carried out by Japanese geographers. But these proceedings did not contain systematic explanations and descriptions of the geography of Japan; the proceedings of the XI Pacific Science Congress, which was held in Tokyo in 1966, were of the same kind.** On the occasions of these two international meetings, guidebooks for excursions in Japan were published, but these were naturally of very limited distribution and may not be suitable for general academic use. Also to be had are certain publications on the geography of Japan such as, for example, the *Geography of Japan* by R. ISIDA (KBS, Tokyo 1961), and some special issues of the International Society for Educational Information.

But all these publications are restricted to a general treatment of the geography of Japan as a whole, with a limited number of pages. Two English language atlases, the *Atlas of Japan* (INTERNATIONAL SOCIETY FOR EDUCATIONAL INFORMATION, Tokyo, 1970), and the *National Atlas of Japan* (GEOGRAPHICAL SURVEY INSTITUTE, Tokyo, 1977) play an important role in describing the geography of this country. Both contain numerous pages illustrating the distribution of phenomena; however, the presentation of the various distribution maps are generally made without detailed analyses.

We have no hesitation in expressing our appreciation for the contributions made by foreign geographers to the studies on the geography of Japan, as listed in the bibliographies by R.B. HALL and T. NOH (1957 and 1970), and by D.H. KORNHAUSER (1979).*** But we also feel that it is a matter of some regret that most of these works do not refer sufficiently to works by Japanese geographers.

In order to cope with the lack of information on geographical studies in Japan, the Association of Japanese Geographers has, since 1966, issued irregular special publications on various themes.**** The last issue was Special Publication No. 3, *Geography in Japan*, edited by S. KIUCHI (The University of Tokyo Press, Tokyo, 1976), which constituted a rather detailed review of geographical studies in Japan in the last fifty years. This volume, the *Geography of Japan*, was planned to be published on the occasion of the 24th International Geographical Congress in Japan as Special Publication No. 4 of the association.

In establishing the editorial principles for this book, the form of traditional

* SCIENCE COUNCIL OF JAPAN (1959) *Proceedings of IGU Regional Conference in Japan 1957*, Tokyo

** SCIENCE COUNCIL OF JAPAN (1966) *Proceedings Volume X, The Eleventh Pacific Science Congress*, Tokyo

*** HALL, R. B. and NOH, T. *Japanese Geography: A Guide to Japanese Reference and Research Materials*. Vol. I, 1957 Ann Arbor, Vol. II 1970 Ann Arbor
THE JAPAN FOUNDATION *An Introductory Bibliography for Japanese Studies*. Vol. I-III, 1974-1979

KORNHAUSER, D. H. (1980) *A Selected List of Writings on Japan Pertinent to Geography in Western Languages, with Emphasis on the Work of Japan Specialists*. Special Publication No. 6., Research and Sources Unit for Regional Geography, University of Hiroshima

**** Special Publication of the Association of Japanese Geographers
No. 1 (1966) *Japanese Geography 1966—Its Recent Trends*
No. 2 (1970) *Japanese Cities*
No. 3 (1976) *Geography in Japan*

regional geography was naturally taken into consideration. This scheme was discarded for the following reasons: first, there are a number of publications of this kind written by foreign geographers and currently available; secondly, to present the actual levels of achievement in geographical studies by Japanese geographers, in the form of a work on systematic regional geography, would involve far too voluminous a work; and, thirdly, it has been reported that a Japanese publisher is contemplating this kind of work. It was decided to aim for a double target, in the form of a collection of monographic studies serving as a standard reference of regional geography in Japan and, at the same time, presenting the achievements of researchers in geographical studies. The contributing authors were requested to adhere to the fundamental policies of this edition. Most of the authors considered the totality of Japan rather than limiting themselves to local regions within Japan. Even when the authors examined rather limited areas, they were asked to generalize their observations or their considerations in the context of the *Geography of Japan*.

The original manuscripts were written in Japanese and, after review by the editorial committee, were translated into English under the responsibility of the editorial committee. The authors reviewed the English translations and the editorial committee discussed them at great length with both the authors and with the translators, in order to ensure that the English texts accurately expressed what the authors wanted to say. Naturally, due to different modes of expression and the frequent lack of corresponding English and Japanese terms, there was much difficulty in making a proper English rendering of the Japanese texts. We have left many technical terms in Japanese and have put a glossary of Japanese terms at the end of the volume. For the comprehension of this work as a whole, considerable knowledge of the history of Japan, geographical source materials, Japanese place names, and the regionalization of Japan is required. Along with the glossary, editorial notes on these problematical aspects will be found in the appendices of this volume; we earnestly recommend that the reader consult these on perusing this book.

This volume consists of three parts. Part one contains four papers on physical geography. As is commonly known, the Japanese islands are contained in the Circum-Pacific orogenic zone, and their topography shows evidence of repeated crustal movements and volcanic activities. Geomorphology is one of the fields of geography in Japan in which active study has been carried on for a long time. Recently, with the progress of Quaternary research, paleogeographical environments and features have been extensively investigated by many Japanese geomorphologists. Because of its longitudinal elongation and its complicated topography, Japan is characterized by regional differences in climate; at the same time, the alternations of prevailing wind systems, as well as air masses, are clearly reflected in seasonal trends of weather and climate. In Japan, with the increase in the demand for water, the incidence of water resources and their regional features have become some of the most interesting subjects of hydro-geographical studies. The four papers deal with these most representative and important themes of the physical geography of Japan.

SAKAGUCHI's paper, which appears at the beginning of the book, presents the physiographical features of Japan. A large part of his paper consists of a synthesis of recent research results of many Japanese geo-scientists as well as of his own

studies. There are also his new contributions such as his consideration of the geomorphic development of the Japanese islands analyzing, on the one hand, the longitudinal profile along the Japanese island arcs and, on the other, the development of Japanese mountains on the basis of plate tectonics.

MACHIDA's paper describes volcanic activities, glacial eustasy, glacial fluctuations and crustal movements. He explains their historical relationships and inter-relationships, based on recent research results of studies carried out by his colleagues, and the results of his own research. In order to explain the geomorphic features of Japan, MACHIDA attempts to correlate the Quaternary features of Japan and of various other areas of the world, by means of the determination of the radiometric ages of the tephra of Japan.

On the basis of the sequence of various climatic elements, MAEJIMA demonstrates the seasonal trends that characterize the climate of Japan. He also considers the regional climatic peculiarities caused by the geographical position as well as the topographic variety of the Japanese islands.

The paper "Inland Water and Water Resources" was prepared by ICHIKAWA and his colleagues. The introductory statement as well as "The Water Balance" and "Precipitation as an Input into Water Resources" were written by ICHIKAWA, "Groundwater" by KAYANE, "Rivers" by TAKAYAMA, and "Lakes and Marshes" by HORIUCHI, respectively. This paper written by these four researchers synthetically presents the regional aspects of rivers, lakes and ground water, with the aim of systematizing the geography of rivers and lakes in Japan. This kind of presentation of systematic regional hydrology is the first of its kind in Japan. The four authors are also involved in the application of hydrology, that is, inquiries on water resources in Japan, with regards, also, to environmental problems pertaining to water. The results of their studies in this field are well-integrated in this paper.

Part two of this book consists of five papers in historical and cultural geography. In Japan, historical and cultural geography have long traditions and constitute two of the most actively studied fields in geography. All parts of Japan, where the history of occupancy by human settlements is a long one, offer rich material for the study of archeological and historical geography; and the country's long archipelago, together with its long and complicated cultural history, presents many interesting problems in the area of cultural geography.

SENDA's paper deals with ancient administrative territories in Japan and considers the size and regularity of space units in the purely geometric meaning. In the latter part of the paper, discussion takes place as to how the territories and city planning of central and provincial capitals, in relation with the cosmology of the ancient Japanese, were perceived, and what significance was attached to them by the people of that age. His study represents a new trend in the field of historical geography in Japan in the sense that he puts primary stress on seeking the structural regularity of space organization in historical time, rather than on the reconstruction of the historical landscape. The theme here is very specific to Japan; the author, however, divides his interests with his pursuit of studies on historical geography in other countries.

TAKASHIGE remarks on the fact that many areas of Japan were densely inhabited and the process of land reclamation played an important role in the formation of rural settlements. Through a case study in Mie Prefecture, his research focuses on the reorganization of ancient villages and the ensuing formation of medieval rural systems. He selects a few places from a much-dissected hilly land area as examples

of villages established as rural communities since the beginning of the medieval age, and investigates the pattern and mechanism of the transformation of the villages in relation to the physical environment and land-use. His method, depending not only on research into medieval manuscripts but also on the almost unchanging nature of certain customs and agricultural systems such as that of rice planting, suggests a new approach to research in historical geography in Japan. Though his assertions are concerned with limited areas, his study constitutes a reappraisal of the controversial discussions on hydraulic society.

FUJIOKA, a prominent researcher in historical geography, has initiated here the geographical study of castle towns or *jokamachi* in Japan, from which more than half of the present-day cities with a population greater than 100,000 have developed. During his many years of study, he has contributed remarkably to the clarification of the inner structure of the historical cities of Japan, from the viewpoint of urban geography. He is also actively involved in the actual problems of the development of historical cities in Kinki and the problems of the conservation of historical monuments. His paper included in this volume attempts an overview of the transformation of Japanese castle towns during the more than a century since the Meiji Restoration (1868). His study focuses mainly on the evolutionary trends of *jokamachi* in terms of population changes, especially during the past fifteen years, for a certain number of cities grouped in four regional categories. He refers also to the redevelopment problems of central city areas in regards to *jokamachi* relics.

The distinct areal differentiation of traditional farmhouses or *minka* in Japan has been attracting much attention on the part of researchers in geography, architecture, and folklore. There are some conventional theories concerning the origin and evolution of *minka*, which OGAWA reexamines in his paper. He investigates the distribution of *minka* types classified by *madori* or the layout of the rooms. He postulates a very unique hypothesis that various types of *minka* must have derived from an original form called the *futamune* type, where the floorboard and earth floors are separated in two huts; a diagram depicts the evolutionary structure of the *futamune* type. It is his contention that the evolution of this type of layout can be explained in terms of autochthonous factors pertinent to the Japanese archipelago. Since traditional Japanese houses have disappeared to a drastic extent after World War II, especially with the levelling up of the living standards of the Japanese people, this paper, which is based on the author's long years of field study, must be considered a valuable contribution to the study of the cultural geography of Japan.

NAKAMURA's paper deals with the regional dichotomy comprising eastern and western Japan. Above all, he gives attention to the mental images of the regions conceived in people's minds throughout the ages. According to his interpretation, those images have very little basis in the contrast between the two homogeneous regions, but are closely related to the formation of a unified spatial organization. There are many remarkable contrasts in culture, economics and social aspects in the border areas between eastern and western Japan which have contributed to the intensification of such a regional image. This paper constitutes one of the few attempts to synthesize the multidisciplinary approaches in regionalization and is clearly influenced by recent phenomenological reflections in geography.

The last nine papers which constitute part three deal with the socio-economic aspects of Japanese geography, focusing on the changes after World War II. These

changes reflect the economic development and the social transformations of Japanese society as a whole, which have posed many important problems for geographical studies, such as urbanization, population mobility, the changing distribution of economic activities, and so on. Before World War II, there were not very many studies that focused on dynamic aspects such as these but, since the end of the war, almost all geographical studies on the socio-economic aspects of Japan have taken into consideration such changes or transformations, in conformity with the socio-economic development of Japan.

ISHII's paper consists of an overview of the changing spatial patterns of agriculture and of analyses of the various factors which cause these changes. Besides analyzing the spatial differentiation in the occupational structure which reflects the spatial structure of urbanization and the industrialization processes of Japan, and besides reviewing the reorganization of spatial specialization, the author analyzes the trends of the changing composition of farm household types and its impact on the nature of rural settlements. The concept of *kengyo* and *sengyo* farm households cannot be correctly interpreted as "part-time" farm households and "full-time" households. These are categories peculiar to Japan which reflect the socio-economic and juridical circumstances of the country as it is today. In this sense, ISHII's paper constitutes also an introduction to the agrarian problems of Japan.

After the middle of the 1950's, fruit production registered the most remarkable increase among the agricultural sectors, both in acreage and value. EBATO and MATSUMURA consider this a developing sector of Japanese agriculture. They analyze not only fruit production or the distribution of fruit, but also the process of the formation and transformation of the fruit-producing regions, in which they emphasize the importance of the distributive mechanism and the dominance of commercial capital over producers.

In the fields of agricultural and rural geography, there are many other important subjects such as the formation of the main producing regions for each crop, spatial aspects of the producers' and/or distributors' organizations, the changing patterns of crop combinations, and agriculture in underpopulated areas or in areas undergoing urbanization. But these two articles are the most representative for their methodology and actual interest, and for their analyses on a nationwide scale.

There are three papers on industrial geography by MURATA, MIYAKAWA, and IDE and TAKEUCHI, respectively. The manufacturing industry is the leading sector, responsible for the remarkable economic growth of Japan after World War II. The first interest of studies in the industrial geography of Japan is to point out the spatial structure which went through an industrial revolution prior to World War II, evincing many characteristics of late-joining industrialized countries. Japanese industry underwent restructuring after World War II, due to the remarkable and enormous increase in productivity accompanied by technological innovation and changing international circumstances. The second interest is the analysis of the industrial regions, which are identified by the circulation of commodities, capital and labor forces. The third interest lies in the analyses of the geographic features of each specific industry, focusing on its spatial aspects, especially the network of information flow and the production factors concerned.

MURATA's paper is mainly based on the first and second interests and presents general features of the industrial geography of Japan with its historical background. He does not fail to point out, also, the problems involving industrial policies, pol-

lution problems, influences of international economy, and so on. The author had already dealt with, as a geographer, the problems of industrial location policies and the ensuing social cost, and his paper here constitutes the development and rethinking of his previous works.

MIYAKAWA has consistently pursued the rationale of industrial location in Japan and has analyzed the relationships between the behavior of industrial capital and the conditions of industrialized regions concerned. In his paper for this book, he considers three rather different systems of industrial regions, those in the metropolitan areas, the coastal industrial cities, and the inland industrial cities. On the basis of very concrete data, he analyzes the process of the formation of industrial regions and the network structure for the respective industrial regions. His studies are mainly motivated by the second interest, but are always focused on the regional conditions for industrialization rather than on the intersectorial relationship of the manufacturing industries. A methodology such as this has the perspective necessary to its application to the analyses of the industrial systems of multinational enterprises of the future.

IDE and TAKEUCHI's theme, *jiba sangyo*, is difficult to translate into other languages. It is however, a subject very important to the industrial geography of Japan, and one on which many studies have been contributed by Japanese geographers, especially in the past two decades. In defining the *jiba sangyo*, that is, its locally rooted activities on the part of many small and medium enterprises, and its nationwide or international-scale market areas, it must first be stated that it has considerable importance in the lives of the inhabitants of many localities in Japan. In this sense, geographical studies pertaining to the *jiba sangyo* are characterized by the third interest of industrial geography, and the two authors of this paper are representative figures who pioneered this field of study. In fact, these geographers have made most of the existing contributions to the studies of the *jiba sangyo*, brilliantly expounding the validity of geographical analysis and proposing a unified viewpoint and methodology for the examination of the *jiba sangyo* in both rural and urban areas. Their presentation of the concept of the *jiba sangyo* and of the methodology involved in its analysis should be examined and assessed from the point of view of international comparison.

The HATTORI-SUGIMURA-HIGUCHI paper and the ISHIMIZU-ISHIHARA paper belong to urban geography in the broader sense.

The former constitutes, also, an enterprising attempt to systematize the commercial geography of Japan which, until now, has not been studied or developed to a very great extent in Japan. The urbanization of Japan has been very remarkable since World War II, in both the quantitative sense and in the spatial extension of its sphere of influence. This paper deals with the dynamics of the commercial areas in the context of the rapidly advancing urbanization of Japanese cities. That the emphasis placed on various points by the three authors varies somewhat, reflects the individual interests and specializations of the three authors.

The presentation of the characteristics of present-day urbanization and the changing nuclei under the influence of urbanization is written by HATTORI. Here, the author points out, on one hand, the universal characteristics of urbanization manifested even in Japanese cities and, on the other, the peculiarities of Japanese urbanization due to the rapidity and violence of its advancement, and to the urban tradition proper to Japan. The commercial network on a nationwide scale and the networks of the commercial centers in the city regions are analyzed by SUGIMURA.

In this part, the author, applying conventional methods of analysis to the commercial networks in Japan, succeeds in clarifying the characteristics of the hierarchy of the commercial centers in Japan. The author has a more than twenty-year career of study in this field and the greater part of his writing in this book is a synthesis of his previous studies. But there are also new developments of the studies, such as analyses of underground shopping emporiums in three main metropolitan areas, Tokyo, Osaka, and Nagoya. HIGUCHI treats the periodical market which, in spite of the importance of this phenomenon, especially in historical geography, has been studied very little until now in Japan. Stimulated by the increasing interest in the subject on an international level, the author examined this phenomenon and has been able to present some characteristics of the periodical markets of Japan, notwithstanding the difficulties of study due to the fact that they are rapidly disappearing, to the general lack of permanent installations, and also to the insufficiency of historical documents. The article finishes with the sections written by HATTORI on *sakariba*. According to the author, this is also a phenomenon peculiar to the urban centers of Japan; he tends to appreciate the more dynamic features of this phenomenon and, perhaps, insist on the necessity of creating shopping areas properly Japanese, based on contemporary and traditional life styles of the Japanese people.

The ISHIMIZU-ISHIHARA paper is the first attempt to analyze the structures of the population distribution, and its mobility, of the three main metropolitan areas, Tokyo, Nagoya, and Osaka, from a consistent viewpoint based on the same kind of data. The main purpose of this study is the comparison of the inner structure of the three metropolitan areas. But there are also many interesting proposals such as that pertaining to the demarcation of metropolitan areas; and the definitions for suburban zones are indices of the suburbanized and commuting population. ISHIMIZU specializes in quantitative geography in Japan, and ISHIHARA in historical and social geography; this paper thus represents the results of the collaboration of two geographers of rather different disciplines.

The remarkable changes in the socio-economic structures of Japan after World War II have given rise to new types of population-related problems. KAWABE's paper analyzes the changing nature of these problems through a comparison of the prewar and postwar periods. Discussion of the population problems in Japan in the prewar period focused mainly on those concerning overpopulation. After the middle of the 1950's, almost all the discussions were concerned with the problems of migration such as urban congestion and depopulation of the remoter or mountainous areas. The author analyzes the background of these changes in nature of the population problems and points out the emerging of new kinds of overpopulation problems in the 1970's consisting of the lowering of the population increase rate, aggravated conditions of food and resources supply, and the stagnating growth rate of the national economy. The main premise in this paper is always concerned with the problem of population migration for, in Japan, the spatial mobility of the population is always more remarkable than the occupational; or the latter has always been accompanied by the former.

KAWASHIMA's paper constitutes not only the analysis of the spatial structure of the Japanese economy per se, but also a value-committed discussion on spatial-economic policies from the viewpoint of the realization of social justice and spatial equality. His considerations are not limited to single economic sectors but include the relationships between and interdependency of the sectors, and the synthetic

expression of the economic structure, including such aspects as spatial income disparities. These kinds of actual interest in the economic situation, the economic policy-oriented analysis, and the global perspectives which encompass the analysis of the national economy as a whole represent some, though not a majority, of the trends of the studies of the economic geographers of Japan.

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