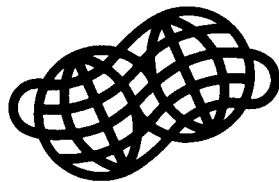


# **The Changing Urban Geography of Japan**

ABE Kazutoshi



The Association of Japanese Geographers

*Reprinted from* Geographical Review of Japan

Vol. 81, No. 5, 262–278, 2008

# The Changing Urban Geography of Japan

ABE Kazutoshi

Department of Education, Aichi University of Education, Kariya 448–8542, Japan

**Abstract:** The aim of this article is to examine recent research trends in urban geography in Japan. For this purpose, papers from five major academic journals on geography were reviewed. It has been found that the number of articles on urban geography increased consistently in Japan after World War II, reaching a peak in the 1980s. Although the number decreased somewhat in the 1990s, it is again increasing in the 21st century. Trends in these articles may be summarized as follows: 1) a decrease in studies that examine cities as a single point; 2) an increase in studies that examine cities as an area; 3) an increase in studies that analyze urban functions; 4) a decrease in studies that use quantitative techniques; 5) an increase in studies that focus on humans themselves; and 6) an increase in studies that deviate from traditional categories. Another important point is that there have come to be a greater number of studies that examine some aspect “in cities” than studies “of cities.” A change in the writing style of research reports is also seen. Human agency continues to be a problem taken up in studies of urban geography. In the past, few papers quoted from people directly, whereas today this way of writing is not uncommon. In addition, nowadays there are also articles that directly quote individual opinions and judgments. From the above, recent urban geography may be summarized as having an increasing number of studies that view cities as areas, which serve as the field for examinations of urban functions, people’s lives, or social groups, and that emphasize direct voices and narration. The influences of humanistic geography can be seen in the background. However, with excessive focus on urban functions or humans themselves, we run the risk of “not being able to see the forest for the trees.” It should also be pointed out that a writing style which relies too much on direct quotes or narration risks the identity of urban geography.

**Key words:** urban geography, studies of cities as a point, studies of cities as an area, urban function, human agency

## Introduction

The purpose of this article is to summarize recent research trends in urban geography in Japan. The central focus will be on ordering the research trends in a recent 15-year period, specifically 1990–2005.<sup>1</sup> The article is organized as follows.

To understand the characteristics of recent researches in urban geography, the major flows in urban geography in Japan since World War II have been set in order, and research trends in recent years have been placed among these trends. To do this we organized articles on urban research published in five major geography journals in Japan: *Geographical Review of Japan*,<sup>2</sup> *Japanese Journal of Human Geography*,<sup>3</sup>

*Quarterly Journal of Geography*,<sup>4</sup> *Annals of the Japan Association of Economic Geographers*, and *Geographical Sciences*. These five journals have been selected because each of them has a long history, and because they are judged to carry articles of a high standard, since they all use a referee system. Additionally, they have been selected because the research trends in articles found in these journals are considered to reflect overall trends. Urban geography is also positioned among human geography overall. Attention was also turned to three comprehensive series of geographic publications by Asakura Publishing Co., Ltd. and the position of urban geography in those issues was investigated.

In this article, urban geography in Japan in the postwar years is first organized from three perspectives: 1) trends in the number of articles on

urban geography published in these five journals, 2) trends in research seen in Asakura Publishing's series of books, and 3) research trends seen from the research perspective. Next, researches on urban geography in the earlier years in Japan are simply organized, and the difference between that research and recent research trends is examined.

Of course, research results other than those seen in the five journals mentioned above were also incorporated. In addition, while the statistical treatment covers through to 2005, articles and books from 2006 are also discussed. The article will conclude with some thoughts on the identity and future of urban geography.

### **General Trends in Urban Geography Research in Japan**

#### **Transitions in number of articles and research trends seen in Asakura Publishing's series**

First, the currents in urban geography in Japan are organized. To do this, it is necessary to define the research reports on urban geography. There is, however, the problem as to which elements should be satisfied for a research report to be considered a report on urban geography.

The author classifies geography into the following fields.

- General geography (history of geography, methodology of geography)
- Physical geography
- Geography • Applied geography, geography education, regional geography
- Human geography (industrial geography, agricultural geography, historical geography, urban geography, economic geography, etc.)

The research that is covered in this study is that which is classified as urban geography in the field of human geography. The author considers urban geography to be the academic discipline for the geographical study of cities. Because of space limitations, readers are referred to a separate article for a detailed discussion of this point (Abe, K. 2003). In Japan, most urban geography studies examine municipalities that

are classified administratively as cities. However, towns are also occasionally included, and here we shall take a broad view with cities, towns and villages taken to be urban areas, and studies that have included them taken to be studies on urban geography. Some readers may be uncomfortable with the idea of including studies that cover villages, but considering that several central place studies, which are the major field of urban geography, include villages, it is reasonable to include studies that take towns and villages as subjects of analysis in urban geography. What is an actual problem, it should be pointed out, is that there are no studies of urban geography that examine villages other than central place studies, and there are only a few central place studies that examine villages.

Another problem arises with classification if we consider that, while industry, agriculture, history, government, economics, society and culture are the phenomena that are studied in most fields of human geography, in urban geography in particular, the object of study is spatial expanses. In other words, this is the problem of whether to also include studies that examined the industry, agriculture, or history of urban areas in urban geography. In human geography, studies that treat industry, agriculture, or cities of antiquity are counted as industrial, agricultural, and historical geography so that, in a manner of speaking, a tacit understanding that compartmentalization has been established is needed. Therefore, this article does not treat these studies as urban geography.

In addition, relations with population geography, transportation geography, and marketing geography, fields which are closer to urban geography, are delicate ones. However, while there may also be a problem of data in population geography, there are a fair number of studies that take prefectures or similar administrative divisions as units. Studies at the level of prefectures cannot be considered as urban geography. The cases of transportation geography and marketing geography are similar. In any event, since these three fields are widely acknowledged to be independent fields of research, even studies at the municipal level shall not be included in urban geography.

There is a consistent increase in studies of for-

eign cities by Japanese researchers. Reports on studies at the city level are considered to be articles on urban geography.

Based on the above, Table 1 arranges articles on urban geography published in the five journals mentioned above over the 60 years after World War II, from 1945 to 2005, in 10- and 5-year blocks.<sup>5</sup> In Table 1, the urban geography articles are broadly divided into “studies of cities as a point” and “studies of cities as an area.” This is because there seems to be general recognition by researchers that urban geography studies are broadly divided into those that view cities as a specific point for analysis and those that view cities as an area for analysis (Tanabe 1985).

Studies of cities as a point are divided into those on urban comparison, urban classification, and urban image; urbanization and urban growth; urban sphere of influence; central place system and central place; urban systems; urban functions; and residential areas. Studies of cities as an area are divided into those on chorography, urban landscape and urban form; urbanization and urban growth; urban internal structure, civic centers, central business districts, and shopping streets; urban functions; and residential areas. Since individual researchers do not classify their own papers, these classifications were determined by the author. It should be pointed out that in some cases these classifications may differ from those the original authors would have made.

The following points may be seen from Table 1.

1) The number of articles on urban geography increased after World War II. They reached a peak in the 1980s, but decreased in the 1990s. Then, in the years 2001–2005 the number again increased. In these five years the number of articles on urban geography was 114 (if articles in the *English versions of Geographical Review of Japan* are included, the number is 127). If we simply double this, the number of articles in the years 2001–2010 will be 228 (or 254).

Table 2 shows the total number of articles on human geography carried in the five major journals,<sup>6</sup> the number of articles on urban geography, and the percentage of the latter in the former. There was a rapid increase in the percentage of articles on urban geography from the

1960s, reaching 25.9% in the 1980s. In the English versions of *Geographical Review of Japan*, this percentage reached 38.9%. There was a slight decline in the 1990s, followed by a small rebound in the years 2001–2005.

Thus, we see that the number of articles on urban geography was the greatest in the 1980s, fell somewhat in the 1990s, and then increased again in the years 2001–2005. What is clear and important, however, is that although the number of articles increased in the early 21st century, the contents of those articles differed from those in the 1990s. This shall be discussed later.

2) If we divide these articles into studies of cities as a point and studies of cities as an area, we see that until 1970 studies of cities as a point were more numerous, but this was reversed in 1971 and has continued so until today. This trend has become clearer since we entered the current decade. It is even more pronounced in the English versions of *Geographical Review of Japan*.

The number of studies of cities as a point is decreasing in every field, but the decrease is particularly strong in central place system studies, central place studies, and urban system studies. In the first five years of the 21st-century, there were no articles on the former.<sup>7</sup>

3) For many years the greatest numbers of studies among studies of cities as an area were on urban internal structure, civic centers, central business districts, and shopping streets, but in the 1970s there was a rapid increase in the number of articles on urban functions. While a slight decrease in the number of the former was seen in the years 2001–2005, there were 26 articles on urban functions during those years. The content of studies on urban functions will be discussed later.

4) The number of review articles has obviously increased with the increasing number of articles on urban geography.

5) It should also be mentioned that there has been an increase in the number of unclassifiable articles. In preparing Table 1, each study in urban geography was classified to the extent possible so that it could be sorted into a relevant field. In recent years, however, there are a fair number of studies that are difficult to fit into the above categories. Many of the studies contained

Table 1. Number of urban geography articles (1945–2005)

	1945– 1950	1951– 1960	1961– 1970	1971– 1980	1981– 1990	1991– 2000	2001– 2005	
Number of studies of cities as a point	Urban comparison							
	Urban classification	2	5	6	3	1(1)	3	
	Urban image							
	Urbanization	1	4	4	1	1(1)	4(1)	
	Urban growth							
	Urban sphere of influence	2	10	20	11	9(3)	5	
	Central place system		6	11	11	11(1)	7(2)	
	Central place							
	Urban systems		1	1	10	27(1)	20(2)	8(1)
	Urban functions		4	13	19	21(1)	26	17
Residential areas					4	2	3	
Subtotal	5	30	55	55	74(8)	67(5)	35(1)	
Number of studies of cities as an area	Chorography							
	Urban landscape	1	1			1(2)	1	
	Urban morphology						3	
	Urbanization		2	11	13	8	3(2)	
	Urban growth							
	Internal structure of city							
	Civic center, C.B.D., Shopping street	1	17	26	37	33(1)	37(3)	
Urban functions	1	3	4	20	19(2)	22(3)		
Residential areas		1	4	14	22(2)	18(1)		
Subtotal	3	24	45	84	83(7)	81(9)	63(12)	
Review article		6	12	13	19	17(1)	6	
Unclassifiable			2	4	5(6)	3(1)	10	
Total	8	60	114	156	181(21)	168(16)	114(13)	
Population geography articles	2	24	19	16	22(1)	29(1)	11(3)	
Transportation/marketing geography articles	2	20	10	20	29(2)	23(2)	18	

Total for *Geographical Review of Japan*, *Japanese Journal of Human Geography*, *Annals of the Japan Association of Economic Geographers*, *Quarterly Journal of Geography*, and *Geographical Sciences*.

*Japanese Journal of Human Geography* has been published since 1948.

*Annals of the Japan Association of Economic Geographers* has been published since 1954.

*Quarterly Journal of Geography* has been published since 1948.

*Geographical Sciences* has been published since 1961.

Among articles classified as review articles are included articles published in sections other than the "Review" section of journals, based on the author's judgment.

Population geography and transportation/marketing geography do not include articles in which the analysis was done at the prefectural level.

Numbers in parentheses are the numbers published in English versions of *Geographical Review of Japan* (not included in total).

Table 2. Number of articles on urban geography and human geography published in the five major journals of geography

	1945– 1950	1951– 1960	1961– 1970	1971– 1980	1981– 1990	1991– 2000	2001– 2005
Articles on urban geography (A)	8	60	114	156	181(21)	168(16)	114(13)
Articles on human geography (B)	104	693	705	750	700(54)	788(75)	412(48)
A/B×100	7.7	8.7	16.2	20.8	25.9(38.9)	21.3(21.3)	27.7(27.1)

Numbers in parentheses are the numbers published in English versions of *Geographical Review of Japan* (not included in total).

in the “unclassifiable” category are those on human or social groups within cities, and these studies are characterized by a strong interest in humans themselves. This is an important point that shall be discussed further later.

6) Looking at the number of articles on population geography, transportation geography, and marketing geography, which are neighboring fields, we see an increase in articles in all of them starting in the 1950s. In the 1960s and 1970s the number of articles remained about the same, but then began to increase again in the 1980s. The articles in Table 1 take municipalities as a unit of analysis, but in the case of population geography in particular it is necessary to add a fair number of studies that take prefectures as the unit of analysis.

While the above shows the trends in articles on urban geography published in five major academic journals, let us now look at the position of urban geography in a book series on geography. Here we examined a series on geography published by Asakura Publishing Co., Ltd. In the 1950s, Asakura Publishing published all eight volumes of its *New Comprehensive Series of Geographic Publications*, but none of them was an independent volume on urban geography. In addition, it was generally thought that Japan had not produced much significant research in urban geography. Around 1970 Asakura Publishing published another 13 volumes of its *Comprehensive Series of Geographic Publications*, of which volume nine was *Urban Geography and Rural Geography*. This volume had only about half the number of pages of volume one. Their *Comprehensive Series of General Geographic Publications*, consisting of a total of 18 volumes, was published in the 1980s, and here for the first time a single volume was given entirely to urban

geography. The number of studies increased, and urban geography came to be recognized as an independent academic field.

However, in Asakura Publishing's *Human Geography Series* published in the current decade, “urban geography” is not used as the title for any of the volumes. In this series, the traditional field of economic geography remains together with titles on social geography, political geography, and cultural geography for the fields covered in the volumes. Yet there is no independent volume given to urban geography. In fact, this series devotes very little space to urban geography,<sup>8</sup> which may suggest that the value placed on urban geography has changed.

### Trends in urban geography from the research perspective

The research perspective adopted in this paper is to distinguish between studies which were “of the city” (the city was the subject of the study), or studies “in the city” (cities were the setting or field for the study). This distinction may be a little difficult to understand, and it shall be explained in more detail.

In 1973 the author published an article entitled “A study of economic management centers of major cities in Japan” in *Geographical Review of Japan* (Abe 1973). This title had the effect of indicating that the study was an examination of economic management centers in major cities of Japan. However, this study was a comparative investigation of major cities in Japan with economic management centers as an indicator. Therefore, the title of the article should properly have been, “Major cities of Japan from the standpoint of economic management centers.” In the former title the article appears to be a study of urban functions with cities as the

Table 3. Articles on urban geography by research perspective

	Total for 5 major journals		<i>Geographical Review of Japan</i>		<i>Japanese Journal of Human Geography</i>		<i>Annals of the Japan Association of Economic Geographers</i>		<i>Quarterly Journal of Geography</i>		<i>Geographical Sciences</i>	
	A	B	A	B	A	B	A	B	A	B	A	B
1945–1960	53	8	22	5	19				12	3		
1961–1970	76	23	24	8	20	5	2	1	24	8	6	1
1971–1980	79	66	28	18	26	19	4	12	17	12	4	5
1981–1990	70	82	17(12)	15(7)	28	24	11	21	9	15	5	7
1991–2000	61	95	17(7)	26(6)	18	31	14	23	6	12	6	3
2001–2005	35	76	6(5)	23(6)	10	12	6	20	9	7	4	14

A: Articles on studies “of the city”

B: Articles on studies “in the city”

Numbers in parentheses are the numbers published in English versions of *Geographical Review of Japan* (not included in total).

research setting, but the latter indicates that it is a study in which cities are the subject.

This experience provided the author with an opportunity to reclassify studies in urban geography. At first it was considered *a priori* that urban geography indicated studies that made geographical investigations “of cities,” but closer investigation of articles published in academic journals led to the realization that a fair number of studies that are done “in cities” are also included in urban geography.

Table 3 classifies the articles listed in Table 1 into those in which cities are the subject of the study, and those in which cities are the setting of the study. There were quite a few articles, however, that could not be easily classified into one or the other. Since these articles could not be counted in either category, the numbers of articles in the two tables do not correspond.

The data in Table 3 reveals an interesting point. For the period after the end of World War II, there are more articles “of cities,” but from the 1970s the number of articles of each type became closer. This was reversed in the 1980s and has continued so until today. In recent years this trend has become even stronger, and in the years 2001–2005 the number of studies “of cities” had fallen to less than half the number of studies “in cities.”

Although studies of cities as an area increased, the number of studies on urban internal structure, civic centers, central business districts, and

shopping streets decreased while the number of studies on urban functions increased. This indicates that researchers’ interests have moved away from studies on the internal structures of cities toward studies on the state of urban functions with cities as the setting.

Specifically, interest has been intensified in analyses of the status of large corporate offices, large retail stores or retail chains, convenience stores, and the like. In contrast, no similar intensification of interest has been found in studies that organize multiple indicators to divide the areas inside cities into commercial or business districts, demarcate the range of civic centers or central business districts, or mark off shopping streets, and then analyze the characteristics of these areas.

From the above, we see that in the field of urban geography in Japan in recent years, there are a greater number of studies that analyze a city as an area, and study something in the city (city as setting).

### Use of quantitative techniques in urban geography

Urban geography is not the only field that uses quantitative techniques. In the discipline of geography in Japan, quantitative techniques have been introduced and used in many fields. However, among the various fields of geography, urban geography is the one that has most incorporated quantitative techniques. This brings us

Table 4. Articles on urban geography using quantitative techniques

	1945– 1950	1951– 1960	1961– 1970	1971– 1980	1981– 1990	1991– 2000	2001– 2005
Urban geography							
Correlation coefficient/regression analysis	1	7	11	12	9	8	2
Factor analysis/principal component analysis only		1	1	14	22	21	2
Factor analysis/principal component analysis and other analysis				5	14		
Cluster analysis					3	6	1
Trend surface analysis				3	1		1
Gravity model				1	1	1	
Other methods		1	5	16	32(4)	18(2)	6
Total	1	9	17	51	82(4)	54(2)	12
Population geography		8	7	7	9(1)	5	2(1)
Transportation geography		4	1	4	6	6(1)	1

There is no segmentation by quantitative technique in population geography and transportation geography.

Numbers in parentheses are the numbers published in English versions of *Geographical Review of Japan* (not included in total).

to the problem of to what extent such techniques must be used for a study to be classified as quantitative geography. Obviously, the use of simple arithmetic is not enough.

In Table 4, the articles among those published in the 5 major academic journals which were judged by the author to use quantitative techniques are categorized by the technique used. In the early post-war years there were studies that pioneered the use of quantitative techniques, but the number of studies in urban geography that used quantitative techniques did not really increase until the 1960s. In the 1970s there was a rapid increase in the number of studies using quantitative techniques, centered on the younger generation of researchers. This trend peaked in the 1980s. The following should also be pointed out.

1) Even though we say quantitative techniques, most of the early studies used correlation coefficients or regression analysis.

2) In the 1970s, there was an increase in the number of studies that used factor analysis or principal component analysis, and this trend continued until the 1990s.

3) In the 1970s there was an increase in the number of studies using other methods. They included studies using advanced mathematical techniques. Consequently, there were some tech-

niques that only one or two people used or were proficient in.

4) The number of studies using quantitative techniques has declined dramatically after 2001. If this pace continues there will be only about 20 such studies for the years 2000–2010. This is a similar level to what was seen in the 1960s, and marks a radical change from the 1980s. What are the reasons behind this change?

#### Summary of trends in urban geography research in Japan

The above shows the general trends in urban geography research in the post-war years until today. With a focus on the trends of recent years the major points can be summarized as follows. 1) Studies of cities as a point are decreasing. 2) Studies of cities as an area are increasing. 3) Studies on urban function are increasing. 4) Studies using quantitative techniques are decreasing. 5) Studies focusing on humans themselves are increasing. 6) Studies that are difficult to categorize in traditional categories are increasing. We shall look at these points in more detail, but before that I will briefly summarize urban geography in Japan in the post-war period to the 1990s.<sup>9</sup> This will help the reader to better understand the characteristics of recent research trends.



## Recent Urban Geography Research in Japan

### Early urban geography in Japan

There seem to have been three factors in the development of urban geography in Japan from the post-war years to the 1960s. They are 1) the publication of *Urban Geography: the structure and development of urban areas and their hinterlands* by Kiuchi (1951), 2) the increase in the urban population from the late 1950s—in general terms, the advance of urbanization—and 3) the rise in urbanization studies that accompanied the advance of urbanization and the urbanization debate in the discipline of geography.

It was natural that, when faced with rapidly growing cities, the interests of urban geographers turned to studies of urbanization. In 1958 the creation of the Urbanization Research Committee (1958–1964) of the Association of Japanese Geographers, led to intense discussion of the definition of urbanization. There are many introductions to this debate, and here I would like to avoid adding to an already well-covered topic. The important thing is that this rise is considered to have promoted the later development of urban geography.

Meanwhile, although this was not directly related to urbanization studies, there were researchers who took an early interest in central place theory and the internal structure of cities. Central place theory until the early half of the 1960s was in the so-called early stage in Japan, but then suddenly blossomed starting in the mid to late 1960s. This bore significant fruit in the series of studies by Morikawa (1974, 1980, 1988) and Hayashi (1986).

Central place theory and central place studies cover a wide range of topics, but in Japan interest in indicating the hierarchy of cities was high. This was because hierarchy is one kind of order, and this theme stimulated intellectual curiosity more than anything. However, as has been mentioned, in recent years central place studies are on the wane.

In place of central place studies, urban system studies became popular after the 1980s. Various definitions have been presented for urban systems (Murayama 1994), but in the end, these

types of studies became regarded as studies on the interrelations of cities. Aside from the question of whether or not central place studies were actually conducted, the fact that most urban geographers in Japan share a fundamental knowledge of central place theory has undeniably led to the development of urban system studies. While there may be differences of opinion on whether central place studies are included in urban system studies, for this review it is stipulated that what we call central place studies are included in urban system studies. However, urban system studies have also been decreasing recently.

The main streams of studies on the internal structure of cities are central business district studies as the central section of cities, studies on the vertical structure of cities, and studies on shopping streets. Widely known theories on the internal structure of cities are the concentric zone theory of Burgess, the sector theory of Hoyt, and the multiple nuclei concept of Harris and Ullman. Among them, Burgess's concentric zone theory was introduced in Japan before the war by Okui (1940), and referred to after the war by Kiuchi (1951), but among Japanese urban geographers the one who was most conscious of this theory was probably Tanabe (1957).

Tanabe proposed several models based on empirical studies. As far as the author has seen, however, Japanese researchers do not seem to be as aware of the theories of Burgess and others in their empirical studies as was indicated by Tanabe (1971). Reasons that can be given for this are that 1) in the 1950s central business district studies of Murphy had been introduced by Higuchi (1955, 1956), and the interest of Japanese urban geographers was directed to central business districts in civic centers, rather than comprehensive investigations of the internal structures of cities, and 2) there were large morphological differences between American and Japanese cities, and it was recognized intuitively that the theories of Burgess and others were not suited to Japanese cities. There was also the difficulty that the analytical perspective of Murphy and colleagues, who looked at small and medium-sized cities in America, could not be directly applied to large cities in Japan.

It was from the late 1970s that Burgess's the-

ory came to be cited frequently in urban geography in Japan. This coincided with the appearance from about this time of factorial ecological studies within cities using factor analysis (Ueno 1981). This was also one aspect of the rise of quantitative techniques in urban geography. It was thought that studies of the internal structure of cities using quantitative techniques would develop with comparative studies of Japanese and foreign cities, but since that time there has been no increase in studies in this field. This was also related to the decline of quantitative geography.

In studies on the vertical structure of cities, the morphology of Japanese cities was planar, and these studies did not become popular, although the research of Todokoro (1986) must be mentioned. There continue to be a large number of studies on shopping streets. While there are many such studies, the results of Sugimura (1975) may be regarded as representative.

Let us also look at the presentation of research results in foreign languages (especially English). Among items that are particularly noteworthy for urban geography in Japan, the release of *Japanese Cities* in 1970 as a special publication of the Association of Japanese Geographers should be mentioned first. This book, comprising 8 chapters and 264 pages, contained 30 articles on urban geography intended for foreign readers. Its publication in little more than 10 years after urban geography gained momentum in the late 1950s demonstrated that, in this short period, Japan had accumulated the research and educated the people to make such a book possible.

With publication of the English versions of *Geographical Review of Japan* starting in 1984, researchers could publish their results in English even within Japan. Since then more research results have been made public for the field of urban geography than for many other fields. Although few in number, some Japanese researchers have also been publishing in foreign academic journals. Examples are Kohsaka (1983, 1984), Sugiura (1986, 1990), Fujii and Hartshorn (1995), and others.

The work of Murayama (2000) should be mentioned as an example of a book published in English. Murayama elucidates various aspects of the Japanese urban system, with analysis on a range of levels. His book contributes to a deeper un-

derstanding by researchers from other countries of the achievements of urban geography in Japan.<sup>10</sup>

### Recent trends in urban geography

Why has there been in recent years 1) a decrease in studies of cities as a point, and 2) a decrease in studies of the internal structure of cities, despite the increase in studies of cities as an area? Conversely, why has there been 3) an increase in studies including urban functions, as well as 4) a decrease in studies using quantitative techniques, and 5) an increase in studies focusing on humans themselves? One additional point worth mentioning is that 6) there has been an increase in studies that are unclassifiable. Why has the number of unclassifiable studies increased? The above questions are discussed in order below.

#### Decrease in studies of cities as a point

The decrease in studies of cities as a point followed decreases in central place studies and urban system studies, regarding which the following may be pointed out. The decrease in central place studies was because of the difficulty in indicating urban hierarchies of the Christaller type in Japanese cities. Urban distribution and urban morphology in Japan differ from the urban morphology of the Old World and the Western World. The difficulty of applying central place theory without recognizing these differences has been demonstrated (Abe 1993). Then there is the feeling that urban system studies, which upon their appearance seemed to include central place studies, have to a certain extent run their course. If they are to be studied in the future, the distinctive characteristics of urban and regional order in Japan, which differs from that in western countries, will need to be investigated for central place studies. The same is true for urban system studies, but this depends on whether new perspectives and new indicators can be presented for the development of urban systems. Of course, both themes have a sense of being historical studies, or time-series studies. This is because the interrelations among cities (central places) change with the passage of time.

**Decrease in studies on the internal structure of cities** In historical geography, the structures of ancient Japanese cities have been

studied considerably, and models have been proposed (Yamori 1970). Then, analyses of large and medium-sized cities in modern Japan since the Meiji Era (1868–1912) were also conducted, and models were presented (Tanabe 1971, Tomita 1975, Matsumura 1992, Ishimaru 1988, 2000, Yamashita 1987, 1999, Yokoo 2000, 2002). However, while it is recognized that American urban models represented by Burgess and his colleagues cannot be applied, no definitive model has emerged for Japanese cities. More work is required on this point. Studies of the internal structures of modern Japanese cities also need to be deepened based partially on results from historical geography.

Similarly, studies of shopping streets, which have a long history, are not as prevalent as in the past despite there being serious themes such as the placement of large stores in suburbs in recent years and the dying out of traditional shopping streets (Neda 1999). However, studies that consider the revitalization of shopping streets are beginning to be seen.

Among many researchers there is a strong tendency to study individual urban functions rather than to conduct comprehensive analysis of the internal structure of cities. We shall look at this point next.

**Increase of urban functions studies** The concept of urban functions is broad, even limitless depending on one's way of thinking. Urban geographers have much interest in tertiary industry, and that interest has expanded greatly with the advance of tertiary industry in Japanese society. The fast food outlets and convenience stores that are seen everywhere today did not exist in Japanese society in the past. That the appearance and spread of these shops has attracted the interest of urban geographers is natural (Ishizaki 1990; Araki 1994; Tsuchiya 2000).

As society changes new urban functions are sure to appear in the future. At those times it will undoubtedly be the younger generation that first focuses on such new functions. In other words, as society becomes more complex the objects of study in urban geography will continue to grow.

Let us look at some specific examples. The studies of Sugiura and Miyazawa are easy to understand. Sugiura (1997, 1998, 2000) has pub-

lished results on special nursing homes for the elderly and elderly care services, and Miyazawa (2004) has published results on facilities and problems for people with physical handicaps. Both researchers have taken up the problem of care insurance (Miyazawa 2003; Sugiura 2004). Kamiya (2002) has looked at the problem of psychiatric clinics and analyzed the phenomenon that their locations are concentrated in large cities. Studies have also appeared on the problem of people with disabilities and urban spaces (Okamoto et al. 2006). All of these are themes that had received little attention in urban geography in the past.

These studies have also undoubtedly contributed to policy decisions of the government. On this point urban geography has made significant contributions to society, and has brought about an expanded range of the research field. Conversely, there is also a risk that as research interests become more detailed it will become more difficult to grasp the full picture of cities; the concern of not being able to see the forest for the trees.

**Decrease in studies using quantitative techniques** What is the reason for the decrease in studies that use quantitative techniques and the increase in studies focusing on humans themselves? The two appear to be unrelated, but that is not the case. As mentioned earlier, many studies using quantitative techniques were published in the 1970s and 1980s. The opinion was also expressed that, more than a simple boom, theoretical geography was in fact synonymous with quantitative geography (Ishimizu 1973). Even if this was an extreme way of thinking, the idea that quantitative geography at that time caused a transformation, and improvement of (traditional) urban geography received steady support. However, there has been a rapid decline in the number of studies using quantitative techniques, at least those related to urban geography.

The reason is that a large number of people may not have been receptive to research results from urban geography using quantitative techniques. While there may be some dispute on this point, one wonders whether researchers using quantitative techniques produced results that could be understood by people who were not

well acquainted with quantitative techniques, or whether new findings were produced owing to analyses that used quantitative techniques.

The third volume of Asakura Publishing's *Human Geography Series*, entitled *Analysis of Geographical Space*, contained only quantitative geography studies. However, while new techniques may be seen in this book, new findings are not so apparent. Moreover, nearly all of the new techniques were developed by researchers in other countries. One wonders how much techniques peculiar to quantitative geography in Japan have been developed.

It is true that fads or booms exist in research trends, and these are accompanied by the risk that rises and falls in research trends become problems for the field itself. However, the decline in studies using quantitative techniques in recent years suggests to this author that, more than an end to a boom, the limit to the field may have been reached.

**Increase in studies focusing on humans themselves** "Focus on humans" here means that geographers focus on humans at the individual level. To the extent that human geography is the academic discipline of studying human agency and its results in any city, district or space, it is natural that humans become the subject of studies. However, while it cannot be said that there have been no studies in the past that treated humans as individuals in geography, there have been few.

It hardly bears repeating that human activity is the root of studies in this field, whether they are of urban sphere of influence or central place. In urban sphere of influence studies, human activities are first consolidated and then from these results the influence zones of cities are demarcated. In central place studies, human beings are assumed to show rational behavior as economic beings. Thus, direct light is not shown on the behavior patterns of individual humans. Even when the focus was on the buying behavior of consumers, study results have been, in the end, summarized in several categories and discussed.

In contrast to this, from the standpoint that emphasizes the buying behavior of consumers, it is seen that humans visit multiple locations to make a single purchase and do not necessarily complete their shopping at the nearest location.

Sometimes purchases are made paying higher prices for the same goods. Since the place where purchases are made differs with people's incomes, we may also say that analyses should take this into consideration. This standpoint will lead to a grasp of the buying behavior of individual people. Interest in human living activities, including buying behavior, was influenced by time geography as proposed by Hagerstrand, and came to be seen from around 1990 (Kamiya et al. 1990; Kawaguchi and Kamiya 1991).

Such interest at the individual level also came to be seen, for example, in urban studies based on the economic management centers that have been used by the author (Tanaka 1995; Umeda 2003). It hardly bears repeating that the studies by past authors have been from the standpoint of understanding head and branch offices of large corporations as economic management centers, and analyzing the cities where they were concentrated. At those times, to make the discussion more understandable, corporate strategies for behavior patterns of salespersons were analyzed and presented as case examples (Ikezawa 1994). In some cases, these things had significant meanings. However, the ultimate purpose was to study cities, and not to study and present corporate strategies or the behavior patterns of salespersons. This is the place of economics or business administration. If we want to look only at human behavior patterns, we are in the field of behavioral science.

Were urban geographers who conducted urban sphere of influence or central place studies in the past indifferent to this point? That was probably not the case. They must have conducted urban and regional studies on the assumption that human thoughts and behavior patterns are of endless variety, and by consolidating these things, they were conducting urban studies or regional studies. The concept of economic beings was adopted for this purpose. Unquestionably, it is important to pay attention to human behavior patterns. There should be much to study in that area. However, questionnaire surveys to establish urban sphere of influence always contain a question such as, "Where is the main place to purchase the next item?" If the condition "main place to purchase" is removed, the urban sphere of influence cannot be established. The purpose

of geography, or at least urban geography, is the geographical study of cities, not to clarify the behavioral patterns of humans in cities. This is an important problem involving the identity of urban geography.

The approach of focusing on consumers' buying behavior, in other words human behavior, is not only seen in Japan. In fact, as in much other research, the aspect of being influenced by research from other countries is strong.<sup>11</sup> In the background to the appearance of this way of thinking one may see, with slight exaggeration, a backlash against rational processing of everything, as well as a backlash against data processing by quantitative techniques that typify rational analysis. This also seems to be the main current in humanistic geography. It may also be considered as an assessment of flesh-and-blood humans. Such a view had already appeared at the height of quantitative geography in Japan,<sup>12</sup> but in recent years it is recognized as a trend bigger than all others. This has also brought about changes in the style of writing research reports, as will be explained below.

**Increase in studies containing unclassifiable aspects** It is also necessary to investigate this focus on humans from other perspectives. The keywords, to stretch the point somewhat, are culture and society. Many of the articles included as unclassifiable in Table 1 indicate a strong awareness of cultural and social situations (Onjo 1992; Fukumoto 2004; Nakamura 2004; Yamaguchi 2004; Kimura 2006). This point can be seen in review articles of geographies of youth (Sugiyama 2003), and articles examining street artists (Yamaguchi 2002) and street performers (Miki 2006).

This may also be understood if we point to the content of recent research on foreign people in Japanese cities. This research theme has a long history, but because Japanese cities and society are homogenous compared with Western countries, research in Japan differs from that in Western countries, much of which looks at ghettos or other phenomena. However, reflecting the increasing internationalization of Japan, that is, the reality of increasing numbers of people from other countries in Japanese cities, the number of studies will continue to increase (Kataoka 2004). Much recent research points not only to simple

compartmentalization, but also to a strong awareness of the cultural identity of residents (Abe 2000; Abe, R. 2003; Nakanishi 2004). This occupies an important position as ethnic geography in the overall field of geography (Sugiura, T. 1998).

Culture understood from the angle of geography is cultural geography; the academic field in which culture is studied geographically. This may be so vague as to be bewildering, but it is an emerging field in recent years. The term cultural geography may have an unfamiliar ring, but in fact in the past it occupied one volume of *Comprehensive Series of Geographic Publications*.<sup>13</sup> Afterward, there was relatively little published research in this field for a long time. The number of studies has increased over the years, but in recent years there is a clear difference from cultural geography of the past. Interest in flesh-and-blood humans has been pushed to the fore, and attempts are made to study phenomena encapsulated by the term culture in the broad field of the city. It may be said that there is a clear influence of humanistic geography. In the most recent *Human Geography Series* from Asakura Publishing, there is a volume entitled *Cultural Geography of Space*.<sup>14</sup> It must be said that this is a clear contrast with the demise of volumes on urban geography.

### Where is Urban Geography Headed?

The above has shown the recent research trends in urban geography in Japan, but let us also take a look at this from two different perspectives. One is the research perspective, and the other is that of writing style.

It was pointed out above that, when considering the research point of view and categorizing studies as "of the city" or "in the city", studies of the latter type are increasing. In other words, there is a strong trend in urban geography in Japan in recent years to conduct studies in which urban areas are the setting rather than those in which urban areas themselves are the subjects of the study. Let us discuss this point further.

Sugiura (2004) wrote in an article, "from the perspective of investigating the extent to which admission of residents to special nursing homes

for the elderly was done in accordance with practical factors in their lives, based on an understanding of the conditions of both their living situation and facility choice behavior. He also considered how much of a gap this showed with the ideal situation, when limited to facility and admission conditions that can be reasonably considered today." One would not think this was an article on geography.

Nakamura (2004) considered "social relations in neighborhoods formed by residents from the viewpoints of two types of social network, to clarify the characteristics of communities in a suburb of a large city." This question would seem to be one for urban sociology.

These are just two examples, but the similar research viewpoint in these studies, that is, studying some phenomenon with the city as the setting, is not uncommon in recent years, as was mentioned above. If this trend continues to grow stronger, it may lead to the dissolution of urban geography.

In addition, there are a fair number of studies in which behavior patterns or life courses are the subjects of the study (Nakazawa and Kamiya 2005; Nakazawa et al. 2006), and studies in which life histories are described in detail (Tanaka 2000). Here we can see the influence of time geography.

As already pointed out, to the extent that human geography, including urban geography, is the discipline of studying human agency and its results, it is natural that it will take up human behavior, thoughts, volition, perceptions, and broader lifestyle. However, what is the meaning of taking up in such detail human behavior patterns, life courses, and life histories recently? What are its implications?

Let us now look at the second point, changes in writing style. Recently an increasing number of articles include direct quotes from interviewees. According to a survey of the author, of the articles on urban geography in the 5 major journals mentioned above for 2001–2005, there were 9 articles that directly quoted the words of individuals obtained through interviews or other means.<sup>15</sup> There were also 8 articles that quoted newspaper or magazine articles.

Studies of residential areas in urban geography have centered on analyses of residential areas as

places (including analyses of scale). Since it is always humans who decide whether or not to live in such places, human judgments are summarized according to the item of residential choice. In other words, human volition has been summarized based on items such as "prices were reasonable" or "the location was good."<sup>16</sup> Recently, a fair number of studies have directly quoted words by people at the time a decision was made with regard to a residential area. What is the meaning of adopting these detailed quotes?

As everyone knows, the technique of recording people's words and constructing an argument is common in folklore. Moreover, the technique of recording individuals' unadorned opinions or judgments, without additional comment by the author, is common in sociology. How would urban geographers who use such techniques like to see the relationships with these other fields?

## Conclusion

The above has examined urban geography research in Japan, centered on the research trends of the most recent 15 years. It may be summarized as follows.

Urban geography flourished in Japan in the period following World War II. The number of published articles increased steadily to a peak in the 1980s. The number of articles on urban geography started to decline, however, in the 1990s, but has rebounded in the current decade.

The contents of urban geography research have changed greatly. Studies of cities as a point have decreased, and studies of cities as an area have increased. The largest factor of the decrease in studies of cities as a point is the decrease in central place studies and urban systems studies. Despite the increase in studies of cities as an area, there has been a decrease in studies that in the past accounted for its main themes: studies of internal structures of cities, central business district studies, and shopping street studies. The number of studies on individual urban functions is increasing.

Of the increase in studies dealing with urban functions, there are more studies "in the city" than those "of the city." Cities have come to be the setting or the stage for studies rather than the subjects themselves of studies.

The marked decrease in studies using quantitative techniques is also important. Studies using quantitative techniques have decreased dramatically, especially in this decade. The reasons for this are that studies using quantitative techniques have been unable to present new findings, and that explanations of the findings to researchers who were not proficient in quantitative techniques have been insufficient, and that few of the techniques were developed by Japanese researchers. Even more important was the backlash against treating human thoughts and behaviors as excessively rational, which is the fate of quantitative techniques.

A concrete manifestation of this is that it inevitably leads to assessments of humans themselves. In this there is the clear influence of humanistic geography. Thus, there is an increase in articles from the perspective of cities as the setting in which humans are studied. Related to this is that we are now seeing studies which are difficult to include in the traditional categories of urban geography.

The above affects both how articles are put together and how they are written. Emphasis has come to be placed on human outlook and narration, and many articles, in which statements or interview records are quoted directly have been published. This is a method that is often seen in folklore or sociology, but the heavy use of these methods calls into question the identity of urban geography. Excessive emphasis on human judgments, choices, and cognition also leads to questions about the identity of urban geography.

The collapse and reorganization of urban geography in Japan seems to have just begun. This may be intimated by the fact that Asakura Publishing's *Human Geography Series* includes volumes with titles on society, culture, and economics, but no volume on urban geography.

### Acknowledgements

I would like to thank Dr. Risto Laulajainen and Dr. Paul Claval for their advice.

(Received 28 June 2007)

(Accepted 3 March 2008)

### Notes

1. See Abe (1996) for urban geography in Japan until 1990.
2. English version, *Geographical Review of Japan* published twice yearly from 1984.
3. English transcription was *The Human Geography* until 2003.
4. English transcription was *Annals of the Tohoku Geographical Association* until 1991.
5. From Abe, K. (2003) for 1945–2000.
6. Articles judged to be human geography, as determined by the author, from among articles published in five major academic journals.
7. Sugiura presented central place theory in the 2006 *Geographical Review of Japan*, but the setting for this study was the Netherlands. Morikawa (2005) discussed the possibility of applying central place theory to the problem of municipal land reform, but the setting for his study was Germany.
8. When looking at the traditional fields of urban geography, about the only one that falls in the category is Regional Change in Japan's Three Major Metropolitan Areas by Tomita (2004).
9. See Abe (1996), Abe, K. (2003) for a detailed summary.
10. In addition, the Japanese Society of Urban Geography was founded in 2006 and I would like to describe the lead up to publication of the Association's journal, *Urban Geography*.
11. There are many studies in this field, but Clark (1968) may be held up as a representative early study.
12. See the articles of Ohdake (1988) and Yamano (1979) for reference.
13. Vol. 8, *Cultural Geography*.
14. Unpublished as of March 2008.
15. Sixteen with the addition of articles other than urban geography.
16. Studies that adopt this kind of analytical method are of course also seen today. Yui (1999) and Ito (2001) are recent examples.

### References

- Abe, K. 1973. A study of economic management centers of major cities in Japan. *Geographical Review of Japan* 46: 92–106. (JE)
- Abe, K. 1993. On the hierarchy of cities in Japan. *The Human Geography* 45: 534–543. (J)
- Abe, K. 1996. Urban geography in postwar Japan. *Geographical Review of Japan* 69B: 70–82.

- Abe, K. 2003. 20 seiki no Nihon no Toshichirigaku (*Urban geography of Japan in the 20th century*). Tokyo: Kokon-shoin. (J)
- Abe, R. 2003. The formation of space of Philippine pubs and the social construction of representations of ethnicity: A case study of Sakae Walk Street in Nagoya city. *The Human Geography* 55: 307–329. (JE)
- Abe, Y. 2000. The exclusion of Chinese workers and the decline of their residential segregation during the early Showa era in and around Tokyo. *Geographical Review of Japan* 73A: 694–714. (JE)
- Araki, T. 1994. The locational pattern of convenience stores in Kyoto city. *The Human Geography* 46: 203–213. (J)
- Association of Japanese Geographers. 1970. *Japanese cities—a geographical approach*. Tokyo: AJG.
- Clark, W. A. V. 1968. Consumer travel pattern and concept of range. *Annals of the Association of American Geographers* 58: 386–396.
- Fujii, T., and Hartshorn, T. A. 1995. The changing metropolitan structure of Atlanta, Georgia : Locations of functions and regional structure in a multinucleated urban area. *Urban Geography* 16: 680–707.
- Fukumoto, T. 2004. Changes in Korean population concentrations in Osaka City from the 1920s to the early 1950s. *Japanese Journal of Human Geography* 56: 154–169. (JE)
- Hayashi, N. 1986. *Chuushinchī riron kenkyū (The study of central place theory)*. Tokyo: Taimeido. (J)
- Higuchi, S. 1955. Raymond E. Murphy's report with the C.B.D.s. —Delimiting the C.B.D. boundaries—. *The Ritsumeikan Literature Review* 124: 752–756. (J)
- Higuchi, S. 1956. The comparative geography of "C.B.D." *The Ritsumeikan Literature Review* 137: 740–752. (J)
- Ikezawa, H. 1994. The geographical distribution of business contacts seen in branch offices in Sendai Northeast Japan. *Geographical Review of Japan* 67A: 461–482. (JE)
- Ishimaru, T. 1988. Land use change of the surrounding areas of the CBD in Fukuoka City. *The Human Geography* 40: 99–117. (JE)
- Ishimaru, T. 2000. *Saabisukeizaika to toshi (The service economy and the cities)*. Tokyo: Taimeido. (J)
- Ishimizu, T. 1973. Joron (Introduction). In *Keiryō chirigaku (Quantitative geography)*, ed. T. Ishimizu and T. Okuno, 1–21. Tokyo: Kyooritsu-shuppan. (J)
- Ishizaki, K. 1990. The geographical development of fast food stores in Tokyo city area from the viewpoint of locational policy. *Annals of the Japan Association of Economic Geographers* 36: 129–140. (J)
- Ito, S. 2001. Residential choice process of households living in Chiba New Town : The role of husbands and wives in the residential choice process. *Geographical Review of Japan* 74A: 585–598. (JE)
- Kamiya, H. 2002. Geographical implications of the psychiatric clinic location in the metropolitan areas in Japan. *Annals of the Japan Association of Economic Geographers* 48: 221–237. (JE)
- Kamiya, H., Okamoto, K., Arai, Y., and Kawaguchi, T. 1990. A time-geographic analysis of married woman's participation in the labor market in Shimosuwa Town, Nagano Prefecture. *Geographical Review of Japan* 63A: 766–783. (JE)
- Kataoka, H. 2004. The formation, development of ethnic business and local community in Hamamatsu. *Annals of the Japan Association of Economic Geographers* 50: 1–25. (JE)
- Kawaguchi, T., and Kamiya, H. 1991. Human activity studies in an urban environment: A review. *The Human Geography* 43: 348–367. (JE)
- Kimura, O. 2006. Male retiree's involvement process in community activities in a suburban community: Case study of Sakuragaoka, Tama City, Tokyo. *Geographical Review of Japan* 79: 111–123. (JE)
- Kiuchi, S. 1951. *Toshi chirigaku kenkyū (Urban geography: The structure and development of urban areas and their hinterlands)*. Tokyo: Kokon-shoin. (J)
- Kohsaka, H. 1983. A central-place model as a two-level location-allocation system. *Environment and Planning A* 15: 5–14.
- Kohsaka, H. 1984. An optimization of the central place system in terms of the multipurpose shopping trip. *Geographical Analysis* 16: 250–269.
- Matsumura, K. 1992. La distribution et le processus d'agglomération des fonctions CBD (District central des affaires) dans le centre-ville de Koriyama, Préfecture de Fukushima. *Geographical Review of Japan* 65A: 889–910. (JF)
- Miki, K. 2006. The activities of street performers and their social networks in Kita, Osaka. *Japanese Journal of Human Geography* 58: 489–503. (JE)
- Miyazawa, H. 2003. Uneven nursing care service opportunity and the behavior of service providers under the long-term care insurance system: A statistical analysis in the Kanto district. *Geographical Review of Japan* 76: 59–80. (JE)
- Miyazawa, H. 2004. Living environment evaluation by persons with lower-limb impairment and their strategies to access activity opportunities in the early developed area of Tama New Town, Japan.



- Geographical Review of Japan* 77: 133–156. (JE)
- Morikawa, H. 1974. *Chuushinchi kenkyu (Central places; Theory, research trends and some empirical studies)*. Tokyo: Taimeido. (J)
- Morikawa, H. 1980. *Chuushinchiron II (Central place theory II)*. Tokyo: Taimeido. (J)
- Morikawa, H. 1988. *Chuushinchiron III (Central place theory III)*. Tokyo: Taimeido. (J)
- Morikawa, H. 2005. Regional reform and the current situation of municipalities in rural Germany. *Geographical Review of Japan* 78: 455–473. (JE)
- Murayama, Y. 1994. City systems research—Outcomes and issues—. *The Human Geography* 46: 396–417. (JE)
- Murayama, Y. 2000. *Japanese Urban System*. Dordrecht: Kluwer Academic Publishers.
- Nakamura, A. 2004. Social network approach to the study of neighborhoods in “rurban” region: A case study of Asahi-cho Washimiya Town, Saitama Prefecture. *Geographical Review of Japan* 77: 695–715. (JE)
- Nakanishi, Y. 2004. The formation and decline of white Russian society in Kobe. *Japanese Journal of Human Geography* 56: 649–665. (JE)
- Nakazawa, T., and Kamiya, H. 2005. Regional difference in women’s life course and causal mechanisms: Life course after high school graduation in Kanazawa and Yokohama. *Geographical Review of Japan* 78: 560–585. (JE)
- Nakazawa, T., Kamiya, H., and Kinoshita, R. 2006. Regional and gender differences in life courses and related factors: Life courses after high school in Kanazawa and Yokohama. *Japanese Journal of Human Geography* 58: 308–326. (JE)
- Neda, K. 1999. *Toshi kourigyō no kuukan bunseki (The urban retailing system)*. Tokyo: Taimeido. (J)
- Ohdake, Y. 1988. A note on humanistic geography. *Geographical Review of Japan* 61A: 49–57. (JE)
- Okamoto, K., Wakabayashi, Y., and Teramoto, K. 2006. *Handikyappu to chirigaku (The handicapped and the city: Geographical and psychological approaches)*. Tokyo: Kokon-shoin. (J)
- Okui, F. 1940. *Gendai daitoshi ron (Theories on modern big cities)*. Tokyo: Yuhikaku. (J)
- Orjo, A. 1992. The “community” and its transformation in urban space—Hakata, Fukuoka city, from the 1910’s to the 1930’s—. *The Human Geography* 44: 341–365. (JE)
- Sugimura, N. 1975. *Chuushin shotengai (Central shopping streets)*. Tokyo: Kokon-shoin. (J)
- Sugiura, S. 1997. Welfare services for the elderly and territorial justice in Hiroshima prefecture, Japan. *Geographical Review of Japan* 70A: 418–432. (JE)
- Sugiura, S. 1998. Welfare services for the elderly in a metropolitan municipality: Provision and use of nursing homes in Nagoya city. *The Human Geography* 50: 128–149. (JE)
- Sugiura, S. 2000. Regional framework of welfare services for the elderly in the Higashi-Hiroshima area, Japan. *Geographical Review of Japan* 73A: 95–123. (JE)
- Sugiura, S. 2004. Reality and conditions in selecting a nursing home under regional disparities: A case study in Tono area, Gifu prefecture, Japan. *Geographical Sciences* 59: 1–25. (JE)
- Sugiura, T. 1998. Ethnic geography: A methodological review. *Quarterly Journal of Geography* 50: 171–188. (JE)
- Sugiura, Y. 1986. Diffusion of rotary clubs in Japan, 1920–1940: A case of non-profit-motivated innovation diffusion under a decentralized decision-making structure. *Economic Geography* 62: 125–143.
- Sugiura, Y., 1990. A map-transformation approach to the location of central places: the case of the central Kanto region in pre-industrial Japan. *Environment and Planning A* 23: 969–985.
- Sugiura, Y. 2006. Planning on settlement location in the IJsselmeerpolders and central place theory. *Geographical Review of Japan* 79: 566–587. (JE)
- Sugiyama, K. 2003. Geographies of youth: Research issues concerning the “Cultural turn” of Anglophone human geography. *The Human Geography* 55: 26–42. (JE)
- Tanabe, K. 1957. *Daitoshi no kouzou (Structures of large cities)*. In *Shuuraku chiri kouza (Settlement geography course)* 2 Hattatsu to kouzou, ed. S. Kiuchi, K. Fujioka, and J. Yajima, 228–256. Tokyo: Asakura-shoten. (J)
- Tanabe, K. 1971. *Toshi no chiiki kouzou (Areal structure of cities)*. Tokyo: Taimeido. (J)
- Tanabe, K. 1985. Toshichirigaku no hattatsu (Evolution of urban geography). In *Soukan chirigaku kouza 16 toshi chirigaku (Urban geography, general geography course 16)*. ed. K. Tanabe and Y. Watanabe, 1–11. Tokyo: Asakura-shoten. (J)
- Tanaka, K. 1995. The development of an enterprise and the location of corporate headquarters: With special reference to an enterprise on the location and transfer of its headquarters. *The Human Geography* 47: 417–438. (JE)
- Tanaka, K. 2000. *Toshi kuukan bunseki (Urban spatial analysis)*. Tokyo: Kokon-shoin. (J)
- Todokoro, T. 1986. *Toshikuukan no rittaika (Urban vertical growth)*. Tokyo: Kokon-shoin. (J)

- Tomita, K. 1975. Changing patterns of population and industries in the metropolitan areas of Japan. *Geographical Review of Japan* 48: 331–350. (JE)
- Tomita, K. 2004. Sandai toshiken niokeru chiiki henyoo (Regional changes in Japan's three major metropolitan areas). In *Kuukan no keizai chiri (Economic geography of space)*, Tokyo: Asakura-shoten (J)
- Tsuchiya, J. 2000. Development and diffusion of convenience store chains in Japan. *Annals of the Japan Association of Economic Geographers* 46: 22–42. (JE)
- Ueno, K. 1981. Residential structure of Tokyo during the *Taisho* era (1920)—A factorial ecological study of the socio-economic characteristics of residential population—. *The Human Geography* 33: 385–404. (JE)
- Umeda, K. 2003. Restructuring competitive strategy of the oligopolistic agribusiness: A case of Snow Brand Milk Products Co. *Annals of the Japan Association of Economic Geographers* 49: 289–312. (JE)
- Yamaguchi, S. 2002. Street performers and street artists in Minami, Osaka. *The Human Geography* 54: 173–189. (JE)
- Yamaguchi, S. 2004. Administrative labor migration program from Okinawa to “Mainland” Japan as a foreign country during the United States Civil Administration of the Ryukyu Islands. *Japanese Journal of Human Geography* 56: 21–42. (JE)
- Yamano, M. 1979. Contemporary human geography: Humanistic perspective and spatial morphology. *The Human Geography* 31: 46–68. (J)
- Yamashita, M. 1987. Characteristics of the spatial use in Osaka's C.B.D. *The Human Geography* 39: 54–69. (JE)
- Yamashita, M. 1999. *Tokyo toshinbu no kuukan riyoo (Spatial structure of the central Tokyo Metropolis)*. Tokyo: Kokon-shoin. (J)
- Yamori, K. 1970. *Toshipurao no kenkyu (Historical geography of urban morphology)*. Tokyo: Taimeido. (J)
- Yokoo, M. 2000. The transformation of the urban structure in cities of Tohoku district before World War II: A case study on eleven cities founded as castle towns. *Quarterly Journal of Geography* 52: 17–34. (JE)
- Yokoo, M. 2002. Historical development of the urban structure in cities of Tohoku district: A case study on eleven cities founded as castle town between 1945 and the 1990s. *Quarterly Journal of Geography* 54: 201–219. (JE)
- Yui, Y. 1999. *Chirigaku niokeru haujingu kenkyu (Housing geography)*. Tokyo : Taimeido. (J)
- (J): written in Japanese  
 (JE): written in Japanese with English abstract  
 (JF): written in Japanese with French abstract