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Urban People's Awareness of the Quality of Life: Environmental Issues in Two Major Cities in Contemporary China¹

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INTRODUCTION

Rapid economic growth in post-reform China has been so remarkable that it seems to have liberated "people's desire for affluence," something that was systematically repressed beginning with the establishment of the People's Republic of China in 1949. This desire is now becoming a huge tide of demand, especially in the big cities and coastal areas, for an "affluent life" of new lifestyles and values. At the same time, the proliferation of environmental pollution is becoming a critical issue in the living environment along with insufficiencies in basic needs such as housing. It is a chaotic situation, where people are asking for a better quality of life even as they experience actual deterioration. Under these conditions, what direction will China take?

In Japan, under the government's policy of rapid economic growth in the 1960s and early 1970s, many citizens had high expectations for a better life, but they eventually became exasperated by the worsening living environment, and their views contributed to the development of many anti-pollution movements.² Of course, it is not viable to simply equate the current Chinese situation with the Japanese situation at that time in history. In reviewing the Japanese experience from the perspective of the "transformation of people's awareness," however, it can be said that this transformation contributed to social change. Citizens perceived environmental pollution as "resulting in the deterioration of human conditions,"³ in relation to their daily lives and their goals in life.

I believe that peoples' awareness of the quality of their living environment is a subject that deserves special attention in China today because it can help us to forecast social change, especially in relation to environmental issues.

This paper attempts to analyze peoples' awareness of their living environment and the influence this awareness has on social change in two major Chinese cities, Beijing and Shanghai, where the living environment has rapidly changed and problems, such as housing and environmental pollution, have become apparent. The analysis is based on research results extracted from an environmental awareness survey⁴ conducted in the two cities.

1. COMMUNITY TRANSFORMATION IN THE MAJOR CITIES OF CONTEMPORARY CHINA

1.1 Overview of the Surveyed Areas

In the People's Republic, the thrust of residential area development in big cities has been to focus on new residential and suburban industrial areas, while preserving the heritage of old town city center zones. This development policy has resulted in a multilayered structure of residential areas in China's big cities, divided into the old town areas, suburban newly developed areas, and surrounding villages.⁵

Thus, the old town areas and newly developed areas in the same city have developed as communities quite different from each other. The old town areas contain old residential areas which are densely populated and mixed with commercial areas and small-scale industries. In those areas, the renovation of old houses has been recently conducted, contributing to the emergence of "Xincun" (new towns), which are newly developed tower block apartment complexes. The transformation of these communities has been striking in the past few years.

The newly developed suburbs contain residential districts for workers. Companies, offices, and institutions (usually referred to as "Danwei" in Chinese) have been constructed there, and they have supplied their workers with residences. These areas have emerged communities in which workplace and residence are in close proximity. Workers' families receive housing accommodations from their employers, and it is in these communities that they spend most of their lives.⁶

Because of the strict household registration system ("hukou" system), established under China's socialist state, that has controlled migration from rural to urban areas, these two types of areas have been separated not only geographically, but also in terms of social systems. Because the government has controlled all aspects of urban people's social life — from registration, education, workplace, to social welfare — people have virtually no freedom to choose their residence even within a single urban area. On the other hand, owing to the institutional changes since the 1980s, this system seems to have begun to change.

As shown in Table 1, in the 1994 environmental awareness survey conducted in Beijing and Shanghai, we targeted the entire old town area (old city), a portion of the suburban areas and industrial areas, and some surrounding villages, given the above points regarding the characteristics of community formation in China's major cities (See also Nisihira's paper, Figure 1). In order to obtain a good representation of the surveyed areas, we collected a sampling by a consistent method.⁷ The targeted population were men and women over eighteen years of age who were registered and settled in the area. This paper deals only with the data from the urban areas.

1.2 Composition of Residents in the Urban Areas

1.2.1 Basic Characteristics in the Surveyed Areas

Let us look at the basic characteristics of residential patterns in each surveyed area based on the research results.⁸

The following are the general characteristics of the men and women in the urban areas. Over 90% are Han people; people over 60 years old comprise as much as 30% of the total

Table 1 Surveyed Urban Areas

City abbreviation	Characteristics	Samplings		Registered population (10,000/unit)	Sampling of neighborhood committees					
		Planned	Tested		Total	Jumin	Jiashu	Curmin		
Beijing										
BO	Center of the city with redevelopment in progress	1,000	997	264.1 ⁽¹⁾	65	58	7	0		
BH	Suburban area Concentration of universities and institutions	200	198	1.7 ⁽²⁾	10	6	4	0		
BS	Industrial area Large-scale state-owned steel industry's residential area	200	200	2.0 ⁽²⁾	10	6	4	0		
Shanghai										
SO	Old city Center of the city with redevelopment in progress	1,000	1,006	239.4 ⁽³⁾	65	65 ⁽⁵⁾	0	0		
SP	Suburban area Model workers' residential area since 1950's	200	200	3 ⁽⁴⁾	10	10	0	0		
SB	Industrial area Large-scale state-owned steel industry's residential area after 70's	200	199	3 ⁽⁴⁾	10	10	0	0		

- Notes: 1. As of the end of 1993. Beijing Statistical Bureau ed., *Beijing tongji nianjian* 1994 (Beijing Statistics Yearbook), Beijing: Zhongguo tongji chubanshe.
2. As of the end of 1993. Beijing Civil Affairs Bureau ed., *Beijing shi xingzheng qulhua jiance* (Introduction of Beijing municipal district), Beijing: Tongxin chubanshe, 1994. The numbers of Beijing H. and S. are estimated by the author by calculating average static population per household based on registered population in the streets (at the end of 1993) and neighborhood committees.
3. As of the end of 1993. Zhang Yingchao, *Zhongguo guomin huangjing yishi daiocha, chouchu fangan baogao-shu* ("Environmental Awareness of the Chinese People," report on the sampling), Beijing: China Society for Research on Economic System Reform, 1994.
4. The number is estimated by the author based on interviews at the streets and neighborhood committees.
5. Former Jumin committee in the old city

Source: Compiled by the author.

population; about 80% are married; about 90% live as a family of three or more persons; only 3% at most are one-person households; more than half of the total households have one individual over 60 years old. Approximately 90% of the people are either working or have worked. In Shanghai Area B, however, we learned that less than 10% of the total population are over 60 years old, and this is because it is a relatively new residential area. In this area, the percentage of families living with elders is approximately 30%, and three-person families made up a strikingly high 60% of households.

In terms of birthplace and where they lived before the age of 15, over 50% of the people in most areas were born in local urban areas, and have lived mainly in urban areas until the age of 15. About 80% of people in each area have lived in urban areas after reaching the age of 15.

1.2.2 Characteristics in Each Community

The composition of residents in the surveyed areas is interesting with regard to job experience, education, and residency.

The job composition data shows (Table 2) that workers in the state-owned sector living in state owned industry residential areas form the largest single group. Also, in Beijing Area H, professionals, and party or governmental institution leaders (women) make up the largest group, and the education level of the residents (Table 3) is exceedingly high; about 30% of the residents are college graduates. In such locations, the percentage of residents belonging to the so-called executive class is high.

In terms of years of residency (Table 4), a considerable number of residents of old cities have lived there for more than 30 or more than 40 years, and 10% had lived there over 50 years. In suburban residential areas, the average years of residency is usually shorter. Especially in Shanghai Area B, approximately 80% of the residents have lived there for less than 20 years. This indicates that community maturity is more evident in old cities (especially in Shanghai old city), and less evident in suburban residential areas (especially in Shanghai Area B).

The greatest number of people who have moved due to their jobs can be found in suburban residential areas and state-owned industry residential areas. These people fall under either "work unit housing assignment" or "job change" (meaning "found a job here," "job transfer," "changed jobs," or "retired"). Especially in state-owned industry residential areas, about 60% of the total residents are residents who have migrated due to the reasons listed above (Table 4). In old cities, especially in the Shanghai old city, a relatively large number of the residents "have lived there since birth." The number of people who have migrated due to their work is comparatively small (Table 4). In this way, the role of workplace in community formation is most dominant in state-owned industry residential areas. It is least dominant in old cities (especially in Shanghai old city). (It should be noted that there is a gender gap in the main reason for why people live where they live, except in the state-owned industry residential areas. A relatively greater number of women move due to marriage than to work).

1.3 Community Transformation in the Era of Reform

With regard to patterns of houses in urban areas (Table 5), a high percentage of houses are publicly owned, due to the housing system applied after the founding of the People's Republic. At present, however, the government is attempting to privatize houses as well as to forge an economic market for housing.⁹ But the majority of purchasers of commercial

Table 2 Occupation

	Old city				Suburban new area				State-owned industrial area			
	BO		SO		BH		SP		BS		SB	
	Male (474)	Female (522)	Male (465)	Female (536)	Male (94)	Female (102)	Male (98)	Female (100)	Male (105)	Female (95)	Male (97)	Female (100)
(N)												
Occupation (Q26)												
Worker	36%	37%	29%	28%	34%	17%	49%	41%	32%	37%	58%	47%
Retiree	26%	23%	27%	38%	17%	21%	21%	22%	30%	26%	-	6%
Enterprise official ¹⁾	14%	9%	18%	12%	17%	8%	22%	14%	21%	9%	28%	24%
Party/government institution leader	6%	3%	6%	5%	9%	23%	1%	2%	3%	2%	2%	2%
Professional ²⁾	8%	10%	11%	9%	15%	20%	3%	12%	7%	15%	10%	13%
Farmer	-	0%	-	-	-	-	-	-	-	-	1%	1%
Other	8%	17%	9%	8%	7%	11%	4%	8%	6%	9%	1%	4%
N.A.	1%	0%	1%	1%	1%	2%	1%	1%	1%	2%	-	3%
Nature of work unit (Q27)												
State enterprise	54%	42%	58%	39%	38%	29%	89%	71%	65%	41%	84%	66%
Collective enterprise	9%	15%	10%	28%	3%	5%	5%	13%	3%	11%	6%	14%
Educational, cultural, public health, or related institution	10%	14%	8%	7%	31%	28%	1%	5%	4%	9%	2%	8%
Party/government institution	12%	5%	9%	7%	9%	22%	-	2%	3%	3%	2%	2%
Mass or social organization	1%	3%	1%	7%	4%	7%	-	-	2%	3%	-	-
Military	1%	1%	1%	-	2%	-	-	-	-	1%	-	-
Foreign-capital enterprise	2%	4%	5%	2%	2%	1%	1%	2%	3%	9%	1%	2%
Private enterprise	1%	0%	1%	1%	2%	1%	-	1%	1%	1%	1%	2%
Countryside	0%	-	-	0%	-	-	-	-	-	-	-	1%
Other	9%	13%	4%	5%	4%	4%	4%	4%	10%	15%	1%	-
N.A.	1%	4%	3%	3%	4%	3%	1%	2%	8%	7%	3%	5%

Notes: 1. 1) N is number of samples;

2) Because of rounding, figures may not add up to 100%;

3) Figures under 0.5 are listed as 0; and

4) - indicates no answers (These notes are same for following tables).

2. See Questionnaire on Environmental Awareness of the Chinese People (included as Appendix A of this book) Q26, 27.

3. 1) Enterprise ordinary official and Enterprise leader;

2) College instructor, primary or middle school teacher, technical worker, and other specialist (cultural or public health service, etc.)

Table 3 Education

(N)	Old city				Suburban new area				State-owned industrial area			
	BO		SO		BH		SP		BS		SB	
	Male (474)	Female (522)	Male (465)	Female (536)	Male (94)	Female (102)	Male (98)	Female (100)	Male (105)	Female (95)	Male (97)	Female (100)
Nearly illiterate	5%	9%	2%	1%	-	5%	3%	9%	2%	4%	2%	2%
Primary school	12%	19%	4%	15%	5%	6%	14%	11%	4%	9%	2%	7%
Middle school	27%	21%	28%	39%	27%	21%	29%	24%	44%	34%	28%	21%
High school	25%	25%	32%	26%	27%	19%	23%	24%	28%	36%	22%	26%
Professional school	11%	13%	11%	8%	10%	21%	20%	18%	7%	10%	18%	20%
University	18%	12%	23%	9%	29%	27%	11%	14%	12%	6%	24%	19%
Graduate school or above	0%	-	0%	-	2%	1%	-	-	-	-	-	1%
Other	-	1%	1%	1%	-	-	-	-	2%	-	4%	2%
N.A.	1%	1%	-	1%	1%	1%	-	-	1%	1%	1%	2%

Note: See Appendix A (China), Q23f.

Table 4 Personal History of Residency

(N)	Old city				Suburban new area				State-owned industrial area			
	BO		SO		BH		SP		BS		SB	
	Male (474)	Female (522)	Male (465)	Female (536)	Male (94)	Female (102)	Male (98)	Female (100)	Male (105)	Female (95)	Male (97)	Female (100)
"Approximately how many years have you lived in your present district?" (Q3)												
0-9 (years)	11%	13%	8%	7%	16%	25%	15%	12%	20%	16%	42%	34%
10-19	14%	16%	10%	13%	17%	12%	23%	31%	10%	21%	42%	42%
20-29	18%	17%	13%	13%	20%	19%	15%	24%	18%	17%	2%	7%
30-39	31%	26%	32%	31%	26%	28%	33%	26%	27%	23%	9%	12%
40-49	15%	17%	23%	23%	14%	10%	11%	5%	18%	19%	3%	2%
50-59	6%	5%	8%	8%	1%	4%	2%	1%	1%	1%	-	1%
60-	4%	4%	5%	4%	4%	2%	-	1%	4%	1%	-	2%
N.A.	1%	0%	2%	1%	2%	-	-	-	1%	2%	1%	-
Average	29.3	28.7	33.2	33.2	25.9	24.6	24.5	22.2	26.7	25.3	12.6	15.7
"What is the main reason for your taking up residence here?" (one answer only) (Q6)												
Since birth	36%	34%	46%	32%	24%	25%	22%	16%	29%	25%	15%	16%
Marriage	7%	25%	12%	29%	5%	14%	1%	17%	5%	23%	3%	10%
Work unit housing assignment	16%	11%	12%	13%	31%	26%	40%	39%	44%	38%	33%	15%
Change in job ¹⁾	24%	11%	17%	10%	26%	18%	28%	22%	12%	6%	30%	46%
Schooling	4%	1%	1%	3%	1%	5%	2%	-	-	3%	-	2%
Came to find work	3%	2%	1%	1%	2%	-	1%	1%	-	1%	-	-
To live with relatives or friends	4%	8%	2%	3%	3%	9%	2%	3%	3%	1%	-	1%
Joined the military/was demobilized	1%	1%	2%	1%	7%	1%	2%	0%	0%	0%	11%	1%
from the military												
"Xiafang" or "Shangshan Xiaxiang"												
(including "Returned from them")	1%	2%	1%	1%	0%	1%	1%	2%	1%	1%	2%	3%
Other	4%	3%	6%	4%	-	-	1%	-	6%	1%	3%	4%
N.A.	1%	2%	1%	1%	-	1%	1%	-	-	1%	2%	2%
* Change in job												
Found a job here	13%	6%	10%	6%	15%	6%	13%	11%	5%	4%	9%	18%
Job transfer	3%	1%	1%	2%	2%	2%	1%	3%	3%	1%	2%	3%
Changed job	6%	4%	3%	1%	7%	9%	10%	8%	1%	1%	18%	25%
Retirement	3%	0%	3%	1%	1%	1%	3%	-	3%	-	-	-

Note: See Appendix A (China), Q3, 6.

Table 5 Patterns of House Ownership

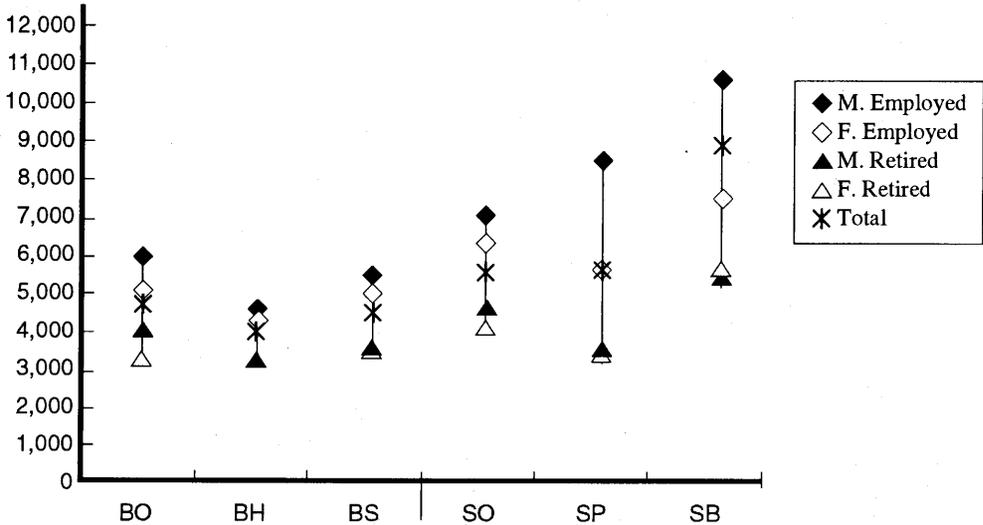
	Old city				Suburban new area				State-owned industrial area			
	BO		SO		BH		SP		BS		SB	
	Male (474)	Female (522)	Male (465)	Female (536)	Male (94)	Female (102)	Male (98)	Female (100)	Male (105)	Female (95)	Male (97)	Female (100)
(N)												
Public	78%	75%	87%	90%	67%	71%	94%	92%	83%	85%	63%	64%
Private	13%	16%	9%	6%	13%	13%	3%	1%	7%	-	12%	10%
Partly private	4%	6%	2%	2%	17%	11%	-	-	9%	14%	22%	20%
Other	3%	2%	1%	1%	-	1%	-	-	1%	-	-	1%
N.A.	2%	2%	1%	1%	3%	5%	3%	7%	1%	1%	3%	5%

Note: See Appendix A (China), Q29a.

Table 6 Awareness of Belonging to a Class

	BO		BH		BS		SO		SP		SB	
	Male (474)	Female (522)	Male (465)	Female (536)	Male (94)	Female (102)	Male (98)	Female (100)	Male (105)	Female (95)	Male (97)	Female (100)
	(N)											
Upper	4%	4%	5%	6%	3%	2%	4%	4%	3%	2%	4%	6%
Upper middle	34%	32%	29%	27%	27%	39%	33%	31%	37%	40%	38%	50%
Lower middle	55%	55%	53%	48%	64%	52%	55%	57%	52%	54%	48%	41%
Lower	7%	9%	12%	16%	6%	5%	7%	9%	6%	1%	7%	2%
N.A.	0%	0%	1%	3%	1%	2%	0%	0%	2%	3%	2%	1%

Note: See Appendix A (China), Q10.

Figure 1 Average Annual Income (1993)

Note: See Appendix A (China), Q28A.

houses are said to be self-funded industries (especially in state-owned sectors) with the exception of Guanzhou and Shenzhen cities.¹⁰ This means that individual purchasing power has not grown much yet. After all, there have been no significant change in the typical situation in which people obtain their housing accommodations through their employers. In the surveyed areas, the lowest rate of publicly owned houses is 60-70% in Beijing Area H and Shanghai Area B. It is not common for people to change residence of their own free will. Whether this reform succeeds or not will be one of the most important factors in future community transformation in China's big cities.

Data on average annual income (Figure 1) is ranked according to district. The higher the average annual income increase in the region, the larger the income gap becomes between men and women, as well as between those who work and those who are retired. Therefore, this gap is more evident in Shanghai than in Beijing, and in Shanghai's newly developed area than in the old city. It should be noted that this tendency does not necessarily overlap with the distribution map of the privileged class, meaning those who have higher levels of education and the party's executive class (See data of Beijing Area H).

We find a direct relationship between the size of this income gap and people's awareness of which class they belong to (Table 6). It is more divided in Shanghai than in Beijing, and in newly developed areas in Shanghai than in the old city. Particularly in Shanghai Area B, nearly 50% identified themselves as "upper middle class" or "upper class."

In this tendency toward differentiation of social strata, we can find a change in the core of social structure from political factors to economic ones. Even given this change, we have to say that there are still political factors. Shanghai Area B has been built by government, under the economic reform and open-door policy, as a community with workplaces and living spaces in close proximity.¹¹

2. CHANGE IN THE LIVING ENVIRONMENT AND ITS IMPLICATION

2.1 Ongoing Changes in the Living Environment

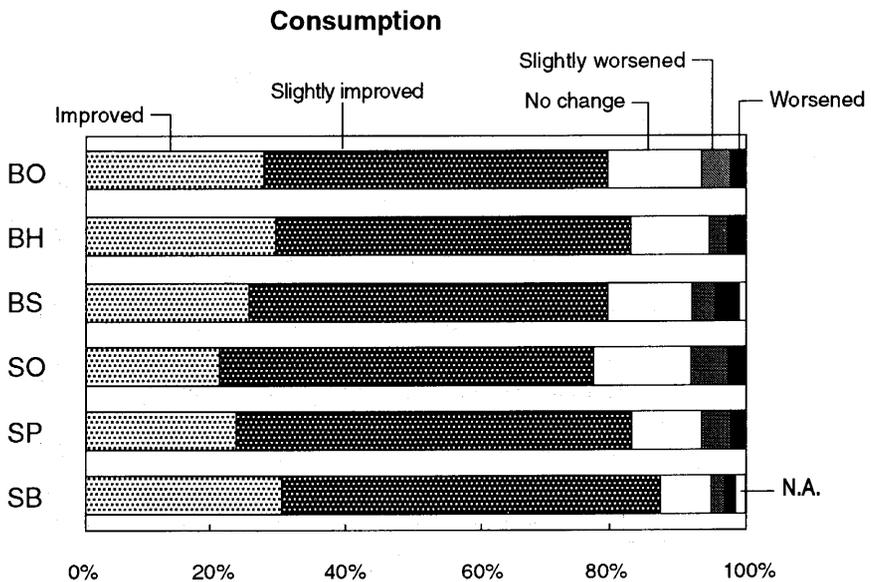
China's rapid economic growth, which started in the 1980s, stimulated people to consume more. It is said that this stimulation has been a major source of power for the economic growth.¹² In any case, the growth in consumption has brought about a major transformation in lifestyles over the last decades.

According to data on household possession of major durable consumption goods from 1994,¹³ from about 90% to almost 100% of total households surveyed owned televisions, refrigerators, and washing machines.¹⁴ Videos, telephones, and air conditioners (in Shanghai) are gradually becoming commonplace.

Also, data on household equipment surveyed in 1994¹⁵ showed that houses with sewage systems including water supply and drainage, kitchen, and flush toilet are becoming popular. Water and electric supplies have been improved, much to the satisfaction of residents.

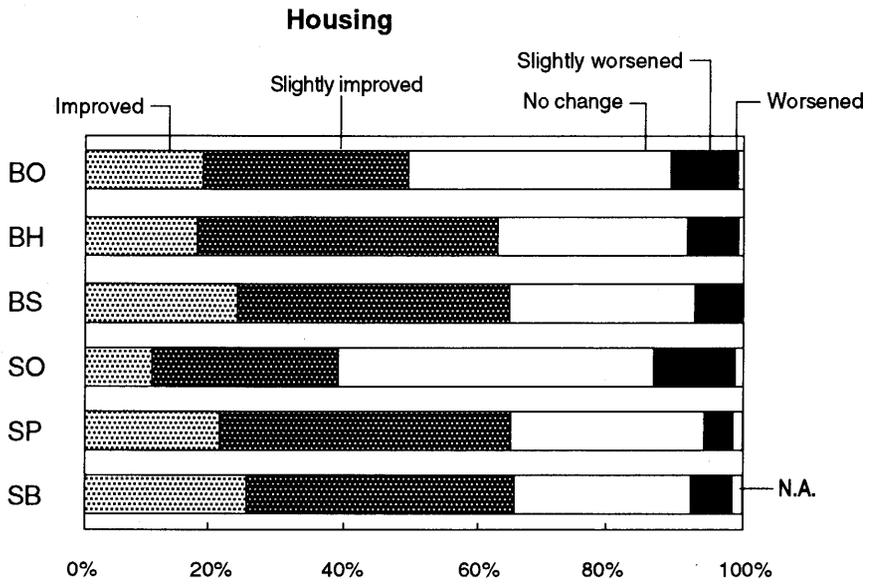
The gap between old cities and newly developed areas is obvious. Of all the surveyed areas, Shanghai old city has the lowest ratio of houses with sewage, at 50%. The residents of the old city are generally more dissatisfied with their sanitary environment. In Beijing old city, 32% and in Shanghai old city 31% feel either "fair" or "poor" about the amount of sunlight they receive; 25% in Beijing and 26% in Shanghai old cities feel the same about ventilation.

Figure 2 Life Change during the Past Five Years



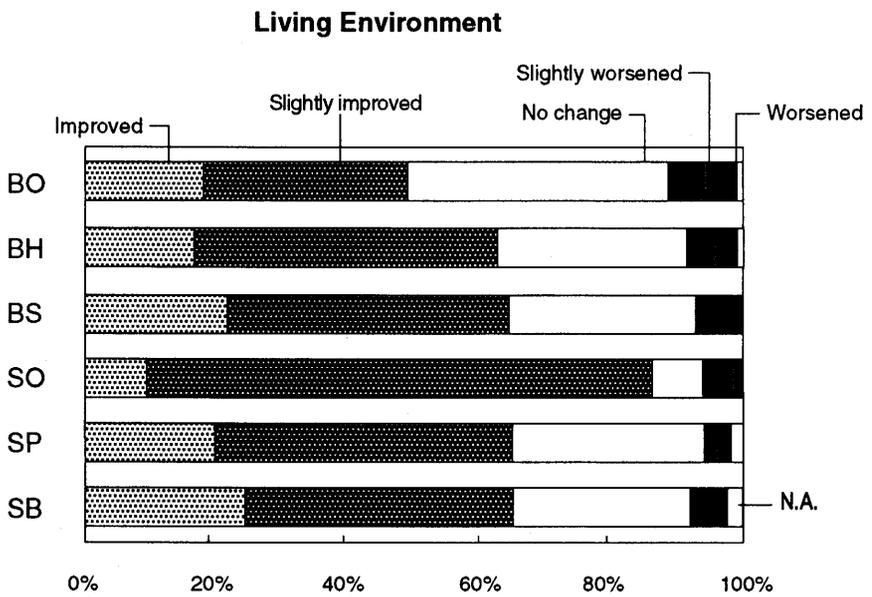
Note: See Appendix A (China), Q9A.

Figure 3 Life Change during the Past Five Years



Note: See Appendix A (China), Q9B.

Figure 4 Life Change during the Past Five Years



Note: See Appendix A (China), Q9C.

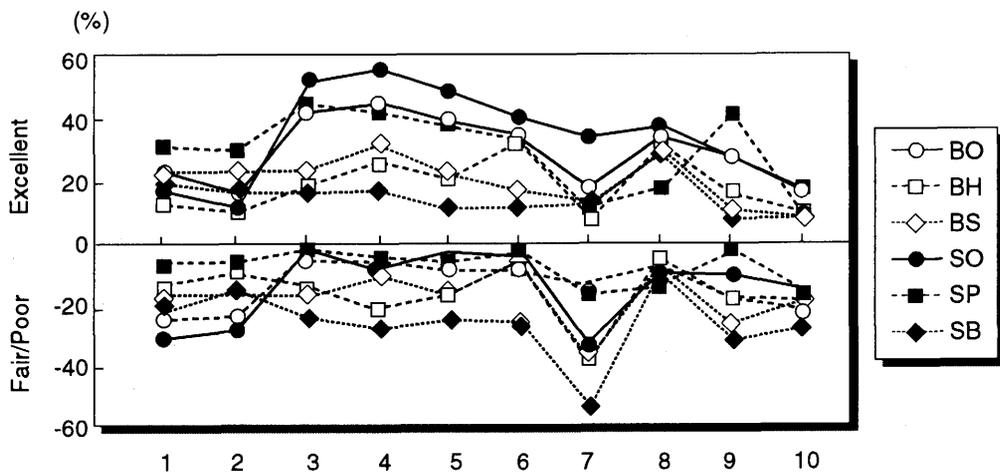
Analysis of transformation in the living environment in relation to residents' awareness of the quality of their environment in the last five years (Figures 2-4) has helped identify the following characteristics: (1) Almost all the classes in urban areas feel that their consumption standard has improved; (2) Compared to their consumption standards, they don't feel that housing standards have significantly improved (This tendency is more apparent in old cities than in newly developed areas); and (3) More people in newly developed areas feel their living environment has improved than in old cities.

2.2 Residents' Psychology Toward the Living Environment

We also examined the present condition of the living environment based on residents' evaluations of their living conditions (Figure 5). We found that the regional differences were inversely related to housing standards. That is to say, the natural environment and sanitary conditions were more satisfactory in newly developed areas than in old cities, but various conveniences including public transportation, education, and medical services were more satisfactory in the old cities. In newly developed areas, people feel that the above conveniences are inadequate. In state-owned industry residential areas, people feel that "public peace and security" and "public morals" are lacking compared to other areas.¹⁶ This feeling that basic conveniences are insufficient is especially strong among the residents of Shanghai Area B.

How is this gap in living environment conditions perceived in the minds of the residents?

Figure 5 Evaluation of Basic Living Condition



Notes: (1) The above figures indicate as follows: 1. Natural environment; 2. Sanitation; 3. Shopping convenience; 4. Transportation convenience; 5. Medical care; 6. Education; 7. Entertainment; 8. Neighborhood relationship; 9. Public peace and security; 10. Public morals.

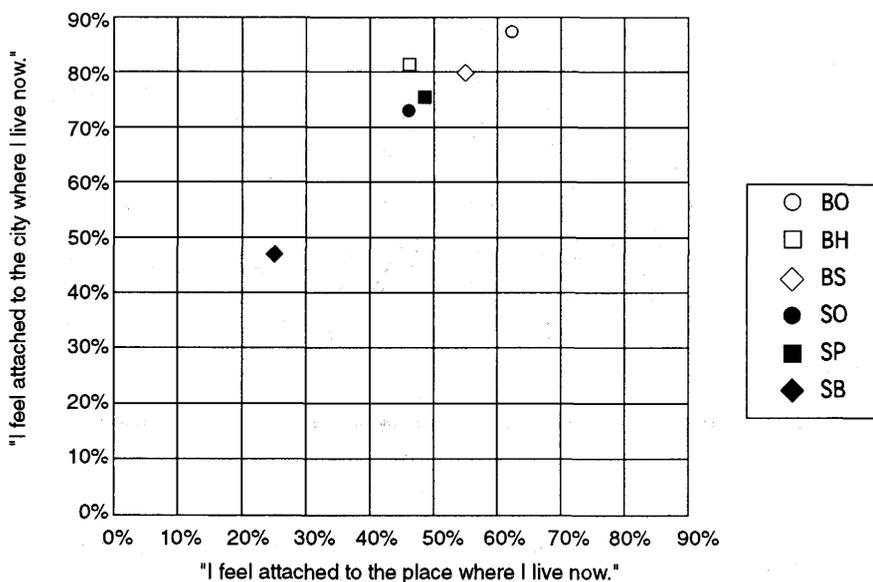
(2) See Appendix A (China), Q8.

First we realized that the inconsistency in housing conditions among different regions is casting a dark pall over people's desire to settle permanently in one area. In old cities and in Shanghai Area P, which is a relatively early developed area near the old city, more than 70% of the residents who would like to move said that it was because of housing conditions (Table 7). In other regions, less than 50% gave the same answer. Such a discrepancy in satisfaction in housing conditions may become a pressure against community transformation in urban areas.

Second, we noted that the residents of Shanghai Area B have the least attachment to their residential area and to the city (Figure 6). It is a newly established residential area (after the late 1970s) and the site of a large-scale state owned industry. It is regarded as a model residential area, sometimes described "like a park once you step into it."¹⁷ The residents are in general satisfied with their housing conditions, but they find the living environment insufficient and alienating. These drawbacks, which may be considered problematic, may be a result of the relative immaturity of the community, as a newly developed area, or of people's higher expectation as a higher income group.

In March 1995, news spread that some Shanghai old town residents were being asked to move to the suburbs to make way for re-development of the commercial zones in the district. They demonstrated against the relocation to express their concerns over life — there would be no supermarket, hospital or school — in the newly developed areas.¹⁸ At present, relocation is often brought about by the re-development of China's old cities. Sometimes, however, the people who are asked to relocate are forced to live in temporary housing for a long time, or permanently in the worst cases.¹⁹ As a result of these failures in relocation, the Shanghai municipal government has established a new division to deal with such problems,

Figure 6 Attachment to an Area



Notes: (1) Not including "somewhat" in both indicators."

(2) See Appendix A (China), Q11.

Table 7 Prospects for Permanent Residency

	<i>BO</i>	<i>BH</i>	<i>BS</i>	<i>SO</i>	<i>SP</i>	<i>SB</i>
"Do you want to live here permanently?" (Q7A)						
(<i>N</i>)	(997)	(198)	(200)	(1006)	(200)	(199)
Yes.						
I would like to move to another place if it were better.	53%	59%	62%	43%	45%	49%
I would definitely like to go somewhere else.	44%	38%	38%	55%	52%	51%
N.A.	2%	2%	1%	2%	3%	-
	0%	1%	1%	0%	1%	-
"What is the major reason for your answer to Q7" (one answer only) (Q7B)						
"I would like to live here permanently"						
(<i>N</i>)	(532)	(117)	(123)	(428)	(90)	(97)
Housing	34%	38%	59%	23%	46%	23%
Transportation/Commuting	30%	14%	7%	34%	19%	20%
Work	6%	21%	12%	7%	3%	39%
The natural environment	13%	6%	9%	11%	18%	7%
Relationships with family and relatives	9%	9%	10%	7%	2%	4%
Affairs of community*	4%	-	3%	9%	2%	2%
Educational environment	2%	11%	-	3%	3%	2%
Quality of consumer lifestyle	0%	-	-	4%	-	2%
Other	1%	-	-	2%	6%	-
N.A.	1%	3%	-	0%	1%	1%
"I would like to move./I would definitely like to go somewhere else."						
(<i>N</i>)	(463)	(79)	(76)	(576)	(109)	(102)
Housing	75%	51%	45%	70%	70%	30%
Transportation/Commuting	6%	14%	7%	11%	10%	17%
Work	2%	6%	4%	1%	-	12%
The natural environment	8%	14%	14%	9%	10%	20%
Relationships with family and relatives	2%	5%	7%	4%	3%	4%
Affairs of community*	2%	3%	-	3%	1%	2%
Educational environment	2%	1%	14%	1%	3%	6%
Quality of consumer lifestyle	0%	3%	3%	0%	-	6%
Other	1%	4%	4%	1%	4%	2%
N.A.	1%	-	3%	-	-	2%

Notes: (1) * Neighborhood relationships, peace and security of local society, and public morals.

(2) See Appendix A (China), Q7.

and will also study a revision of related law enforcement. This causes us to reflect upon what are the qualities of a good living environment.

For those who live in the community, the living environment means not only the housing and architecture, but also the convenience of daily facilities and the atmosphere of neighboring areas. It may be said that a good environment is one which satisfies many aspects of everyday living.

3. RESIDENTS' AWARENESS IN SOLVING PROBLEMS IN THEIR LIVING ENVIRONMENT

3.1 Institutionalization and Normalization of Responses to Environment Pollution

Many Beijing and Shanghai residents are beginning to recognize the seriousness of environmental pollution (Figure 7), such as air pollution, and noise and vibration. In Shanghai old city, over 70% of the people acknowledge the seriousness of air pollution, noise and vibration, river pollution, and the degradation of drinking water quality. More than 70% of residents expressed concern over the possible bad effects upon themselves and/or their descendents.²⁰ In addition to environmental pollution problems, the residents are highly aware of the drawbacks of urban amenities, e.g., the lack of greenery.

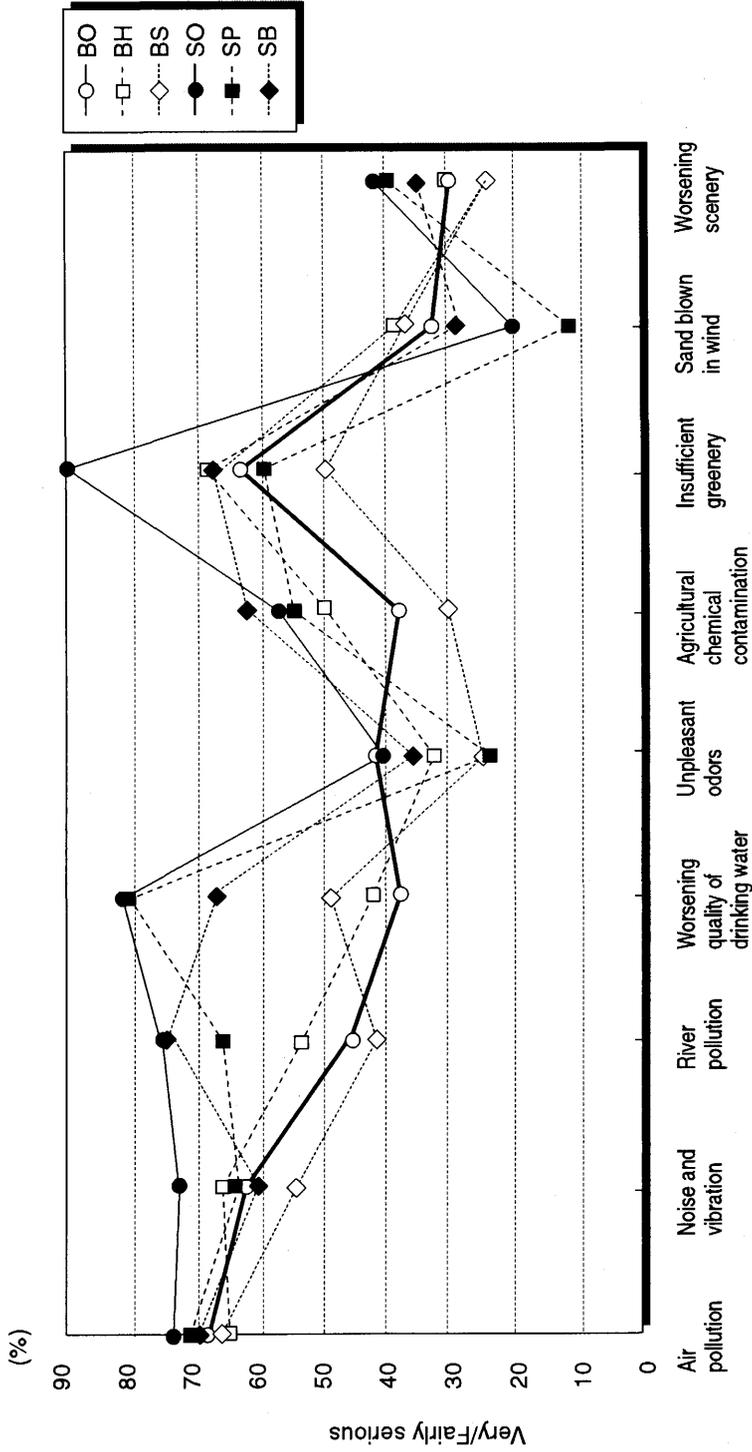
As residents have become more aware of the aggravation of environmental pollution, they have begun to take some cases to court. Victims of pollution have begun to stand up to protest against the polluter and to demand the government to find a solution. Such cases have been reported from many regions in China.²¹

Concerning problem-solving measures (Figure 8), residents of the two major cities considered the central and city government, mass media, and courts of law as the most helpful places. It should be noted that 80% of their answers concentrated on national/governmental institutions; of these about 70% listed central and city government, and the mass media. These are public administrative institutions that have the capacity to receive complaints from residents and solve problems by following a certain procedure. This procedure was institutionalized and normalized by "the Law of Administrative Procedure Dealing Letters and Visitors of Environmental Protection" enacted in 1991.²² Local district government and their branch offices (*Jiedao banshichu*) and neighborhood committees (*Jumin weiyuanhui*), which are responsible for the maintenance of the district, all receive complaints and requests from residents, (to be discussed later in this article) but they function at the lowest end of the government organization. When the pollution is too severe for them to handle, they pass the case on to higher governmental institutions. For this reason, they may be considered as subsidiary units of the upper institutions.

Other problem-solving measures such as seeking help from experts, voluntary groups of victims/residents, workplace supervisors, and families and friends are regarded as informal routes. Only a small percentage of the residents chose consulting these people as the most effective measures. In addition, residents rarely thought of voluntary groups of victims/residents as the most or the second most useful organizations to ask for help.

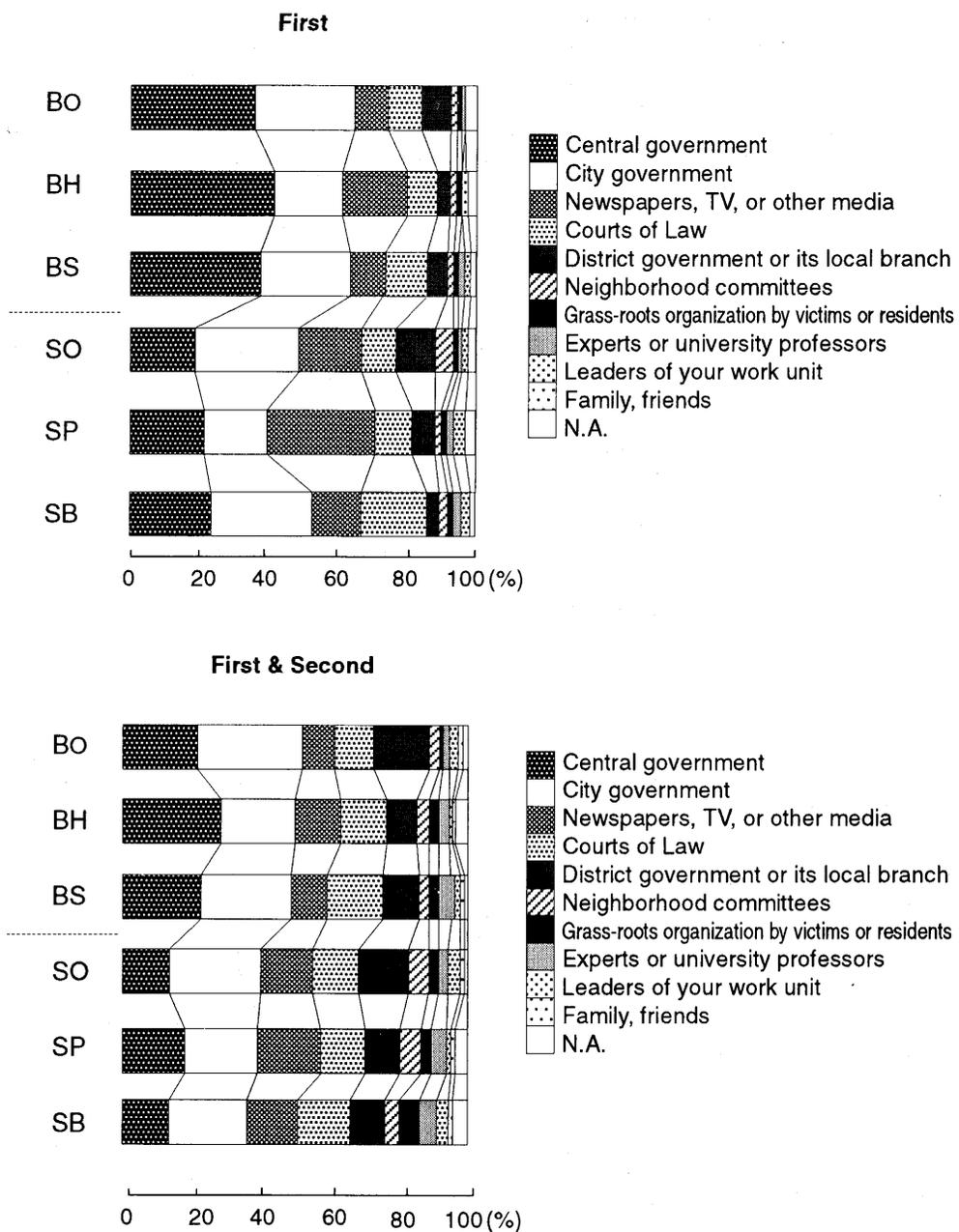
However, it is interesting to find that a relatively large number of respondents in Shanghai Area B chose informal routes. There are several possible reasons for this. One may be the inefficiency of the information processing system that handles complaints in the region, which may be due to the immaturity of the community. Another may be that a large-

Figure 7 Perceptions on Environmental Pollution



Note: See Appendix A (China), (Q15).

Figure 8 What Is Helpful for Victims?



Note: See Appendix A (China), Q21B.

Source: Compiled by the author.

scale state owned industry looks after its employees' families at various levels of daily life issues. One other reason may be that residents with higher incomes have confidence in solving problems by themselves. Even in this area, few respondents chose volunteer group of victims/residents as the most or second most helpful sources. Less than 10% made such groups their first or second choice.

Respondents of the environmental awareness survey in two major cities in China tended to choose higher governmental institutions who are mainly responsible for institutionalized and normalized problem solving systems.²³

The more serious the environmental problems, the more complaints residents will have. Considering these characteristics of people's consciousness, one of the keys to attaining social change as a result of environmental pollution will be whether or not the national and local offices can act effectively in problem-solving.

3.2 Solving Living Environmental Problems by Neighborhood Committee

Dealing with environmental issues in daily life is different from being a victim of environmental pollution. Local residents' organizations, called neighborhood committees (*Jumin weiyuanhui*), often become involved in solving everyday environmental issues in China's cities.

Under the transformation of politics, economics and community following reform, the "Organization Rules of Urban Neighborhood Committees," which was enacted in 1954, was revised in 1989 into the "Organization Law of Urban Neighborhood Committees in People's Republic," and has been in force since 1990.²⁴ Neighborhood committees are institutionalized and normalized organizations under this law. The law defines these committees as "grassroots people's self-governing organizations."²⁵ The activities of the committees are under the leadership, assistance and cooperation of local governments and their branch offices. The committee also must cooperate with local government and its branch office.²⁶

The main role of the committees²⁷ are (1) to publicize the law and governmental policy, (2) to promote public works for all residents, (3) to solve private disputes, (4) to cooperate in the protection of public peace and security, (5) to promote social services such as public health, birth control, and education for youth, etc., and (6) to submit residents' opinion and proposal to local governments and their branch offices. Many of them operate businesses such as general stores, restaurants, tailor shops, and barber shops.²⁸

The committees cover a specified area of a residential district,²⁹ and act under the permission of the respective local government.³⁰ They are made up of from five to nine people including a chief, a vice chief, and members.³¹ The chief, vice chief, and committee members are elected by the residents or by representatives of each household who are given the right to vote on behalf of the entire residency. With the residents' consent, they can also be elected by two to three delegates of each small resident's group.³²

There is some discussion regarding the nature of neighborhood committees.³³ This paper will stress their nature as both formal organizations and neighborhood organizations dealing with living environmental issues in daily life at the same time.

The following are examples of environmental cases that required problem-solving and which were dealt with by the neighborhood committees.³⁴ (1) The committee receives complaints from residents and submits a request to its district government or branch office (*Jiedao ban-shichu*), to solve the problem. (2) The committee receives complaints from residents and facilitates discussion with other affected parties to achieve a solution. (3) The committee

exercises mediation between the accuser and the accused toward reaching reconciliation. In this case, the committee makes its own judgment to facilitate discussion, not necessarily on the basis of resident's requests, in order to achieve a solution to the problem.

Case 1. In a certain residential district of the old city of Beijing, black smoke spouted from the chimney of a nearby public bath, and the soot blackened clothes hung out to dry and fell into cooking food. The chief of the neighborhood committee, after receiving many complaints from the residents, stood out on the street for a few hours to accumulate the soot in a little bottle. He took the bottle to the local branch of the district government as evidence of the seriousness of the pollution. The district government thereupon ordered the public bath closed and recommended that it be turned into a guest house. When the building was renovated, the boilers were replaced and the chimney made taller to resolve the soot problem.

Case 2. In a residential district of the old city of Shanghai, there was an incident involving residents and a retail store owner. The residents demanded that the store owner repair the coolant of his air conditioner, which they claimed was continuously dripping water. A committee member intervened, settling the problem by installing a glass sheet over the coolant, charging it the retail store owner.

Case 3. In the residential district of a university outside Beijing, some residents built a small brick building and made corn patches without a permit. The neighborhood committee advised the offenders to remove what they had built.

These are small everyday conflicts which involve the use of common space in residential districts. Neighborhood committees seem to function in the following manner when dealing conflicts of this sort: (1) as the "lower end of the complaint-processing system" which submit residents' complaints to the public administration; (2) as "mediation and reconciliation bodies" between residents and industries, or among residents; and (3) as "maintainers of common space" in the district. Thus neighborhood committees are expected to function as the core organization of "local communal management."

Other problems can be observed in the organization's relationship to the residents. For example, one committee member of an apartment complex in suburban Beijing called for a general cleaning campaign. Every resident was informed through the residents' representatives of the building unit,³⁵ but only the elders showed up for the cleaning campaign. The residents said that the committee members ought to do the work all by themselves because the other residents did not want to participate in the committee activities. The residents also said they thought the reason meetings on public safety and sanitation were not held that year was that the committee members were overloaded with responsibilities. In addition, based on my visits of residents' committees, I have found that, despite rules which require that the committee members be selected from among the residents by election, the same people often were selected to office over and over.³⁶

What becomes visible here is a particular structure in which a large number of the residents enjoy district maintenance services by loading the committees with professional work instead of actively participating in maintenance activity in a communal manner. In this we also see an increase in their requests for services which affect the responsibility of the government as well as of the neighborhood committees.

While we see the professionalization of the local resident organization working for district maintenance, we can also point to a lack of shared awareness (awareness on “commons”) among the people. In one residential district of the old city in Shanghai, residents put up new wallpaper in their own rooms and left the old wallpaper as trash on their doorsteps. Eventually the residents’ committee members came to take care of the garbage.³⁷

CONCLUSION

Following the 1949 revolution, the nationalization of land and control of basic aspects of social life such as registration, education, workplace and housing have significantly influenced community formation in China’s big cities. As for housing system reform, few have enjoyed its fruit at this stage. But as reform goes forward, and people become increasingly able to seek housing at their own free will, social mobility will increase. On the other hand, along with the rapid development of consumption, the more the housing environment improves, the more strongly residents who have experienced rapid change in their living environment will demand a better quality of living environment and more matured communities.

Though residents are showing increasing concern over the poor quality of the environment and there are many cases where victims of pollution demand better environmental quality in China, the results of our survey in Beijing and Shanghai show that the way that local residents respond to environmental pollution is indicative of their “dependency on institutionalized and normalized procedures.” This may show that there are no alternatives to problem-solving systems under the strong leadership of government. In the past few years, investigation groups have been organized by central formal organizations such as National People’s Congress and the mass media in order to deal with environmental law enforcement and environmental incidents.³⁸ We must call attention to activities which may strengthen or complement the current problem-solving system without alternatives.

In cases involving the solution of living environmental problems by neighborhood committees, which are expected to be the core organizations in local communal management, we can find problems such as the professionalization of the organization and the lack of shared awareness (awareness on “commons”) of residents. This means that the problem-solving abilities of residents cannot be overestimated. Consumption and waste have increased, and their quality has changed. To take the example of household waste and sewage, given the characteristics of urban communities in big cities of China, this may be an issue that is beyond the capacity of residents to solve independently. I will conclude by suggesting a challenge to not only urban China but to all urbanizing societies today. In the midst of a significant transformation in the living environment, people have come to rely on professional or administrative processes to solve their problems, and this is a characteristic of urban lifestyles. The task of creating a shared awareness (awareness on “commons”) under such conditions is the real challenge.³⁹

In China today, environmental pollution is spreading from cities to villages.⁴⁰ Thus “residents’ awareness of their living environment” is a viable perspective which is applicable not only to urban but to rural areas as well. Living environment issues are becoming diversified and complicated at the national level. Further observations should be conducted in order to understand how the residents’ awareness and actions will be affected by life changes, social

changes, and the development of government policy, and how these can possibly lead to social change.

Notes

1. I would like to thank Director Wang Fenyu, Prof. Deng Xueming, Dr. Yuan Fan, and other colleagues of the Division of Social Development Study of NRCSTD for meeting me for discussions in Beijing and for their help in my field research in Beijing and Shanghai. It should be noted that the author is solely responsible for the contents of this paper.
2. Kenji Otsuka, "Nihon no kankyomondai ni kansuru shakaiteki-ninshiki no hensen-yoronchosa no setsumon no ruikeika kara" (Transformation of social perception on environmental issues in Japan: Categorization of questionnaires of public-opinion polls) in *Heisei 5 nendo hattentojokoku kankyomondai sogokenkyu hokokusho: Kankyo-ishiki-chosa no hohoron ni tsuite* (Report on general research on environmental issues in the developing countries, 1994: Methods of environment awareness survey), Tokyo: Institute of Developing Economies, 1994, pp.11-39.
3. Karl W. Kapp, "Environmental Disruption and Protection" in Ken Coates, ed., *Socialism and the Environment*, Nottingham: Spokesman, 1972, p.14.
4. This research consists of a statistical survey with questionnaires and interviews without them. The first part of the research was conducted by I.D.E., National Research Center for Science and Technology for Development of the State Science and Technology Commission of China (NRCSTD) and China Society for Research on Economic System Reform, Research Division (CSRESR) in 1994. See also Nishira's paper in this volume for an outline of this research. The latter part of the research was conducted by the author, who made several trips to China between 1994 and 1996. This research was also helped by NRCSTD.
5. Gu Chaolin, et al., *Zhongguo dachenshi bianyuanqu yanjiu* (Study on the Urban Fringe of Big Cities in China), Beijing: Kexuechubanshe, 1995, pp.146-147; Yuan Jiadong, "Dai 7 sho: Chugoku no toshi II: Chugokutoshi no chiiki kozo" (Chapter 7th: Cities of China, II: Community structure of Chinese cities) in Michihiro Kono, ed., *Higashi Ajia. Sekai chishi zeminaru I* (World geography seminar I: East Asia), 2d ed., Tokyo: Daimyodo, 1991, pp. 134-135.
6. Chen Lixing, *Chugoku no toshikukan to shakaiteki network* (Urban space and social networking in China), Tokyo: Kokusai Shoin, 1994, pp. 34-39.
7. See Nishira's article in this volume for a summary of the sampling. It must be noted that there is a possibility that the research in the villages failed to obtain answers from aged people for some reason, such as their unfamiliarity with the survey (Response rate for people over 50 was 13% for men, 6% for women in Beijing Village Y.; 5% for men and 3% for women in Shanghai Village H. See Statistical tables as mentioned below). Thus we need to apply caution when extracting the characteristics of villages based on the data obtained.
8. *Heisei 7 nendo hattentojokoku kankyomondai sogokenkyu hokokusho: Chugoku, Tai kankyo-ishikichosa no shukeihyo* (Report on general research on environmental issues in the developing countries, 1995: Statistical tables of environmental awareness survey in China and Thailand), Tokyo: Institute of Developing Economies, 1995, Q1-5, 23-25, pp. 9-10, 22-27.
9. Masumi Shin'ya, "Chugoku no toshi jutaku mondai" (Urban housing problems in China) in Reetsu Kojima & Noriko Hataya, eds., *Hattentojokoku no toshika to hinkonso* (Urbanization and urban poor in the developing countries), Tokyo: Institute of Developing Economies, 1995, pp. 387-417.
10. *Ibid.*, pp. 390-399.

11. Shanghai Construction Bureau, *Shanghai Jiansi* (Shanghai Construction) 1949-1985, Shanghai: Shanghai kexue chubanshe, 1989, pp.179-180, 223-228.
12. Shigeaki Fujisaki, "Development and the Environment: Experiences of Japan and Industrializing Asia," in R. Kojima, Yoshihiro Nomura, S. Fujisaki, & Naoyuki Sakumoto, eds., *Development and the Environment: The Experiences of Japan and Industrializing Asia*, Tokyo: Institute of Developing Economies, 1995, pp. 16-18.
13. Statistical Tables., *op. cit.*, Q30A, p. 27.
14. The percentage of households owning washing machines in Shanghai old city is only 73% and is lower than in other areas. This may be attributed to some housing problems, such as delay of drainage system construction and insufficient space (Statistical Tables., *op. cit.*, Q29-30, pp.25-27).
15. Statistical Tables., *op. cit.*, Q29, pp. 25-26.
16. It is rare to find a negative evaluation on "neighborhood relationships" in any area.
17. *Renmin ribao* (People's daily), Beijing, July 17, 1996.
18. "Tachinoki meirei ni jumin su-100-nin kogi, Shanghai" (Hundreds of residents protest forced removal in Shanghai, *Asahi Shinbun*, Tokyo, March 11, 1995.
19. The information was obtained through interview with officials of Shanghai Municipal Housing and Land Administration Bureau.
20. Statistical Tables., *op. cit.*, Q14, p. 15.
21. Wang Jiafu and Ma Xiangcong, "Chugoku ni okeru kankyoishiki to kogai-higai-kyusai" (Environment awareness and relief measures to victims of pollution in *Heisei 5 nendo hattento-jokoku kankyomondai sogokenkyu hokokusho: Kaigai kyodokenkyu (Chugoku, Taiwan) hoyaku* [Report on general research on environmental issues in the developing countries, 1994: Overseas Joint Research (China and Taiwan), the Japanese translated version], Tokyo: Institute of Developing Economies, 1994, pp. 11-39.
22. *Ibid.*, pp. 63-67.
23. As for resources of environmental information, formal organizations also tend to be trusted more than informal ones. See Statistical Tables., *op. cit.*, Q21A, pp. 20-21.
24. Bai Yihua and Ma Xueli eds., *Jumin weiyuanhui gongzuo shouce* (Handbook of work on neighborhood committees), Beijing: Zhongguo shehui chubanshe, 1990.
25. Article 2 of the Law (see Bai & Ma eds., *op. cit.*, p.2).
26. Article 2 of the Law (see Bai & Ma eds., *op. cit.*, p.2).
27. Article 3 of the Law (see Bai & Ma eds., *op. cit.*, pp.2-3).
28. This kind of business is approved in Article 4 of the Law (see Bai & Ma eds., *op. cit.*, pp.2-3, 11).
29. Article 6 of the Organization Law states that neighborhood committee generally consists of 100 to 700 households (see Bai & Ma eds., *op. cit.*, p. 3). My research in the old town area reveals that some neighborhood committee represent about 1,000 households.
30. Article 6 of the Law (see Bai & Ma eds., *op. cit.*, p. 3).
31. Article 7 of the Law (see Bai & Ma eds., *op. cit.*, p. 3).
32. Article 8 of the Law (see Bai & Ma eds., *op. cit.* p. 3).
33. For example, Shigeru Yasuhara has mentioned in his papers that the Chinese neighborhood committee is misunderstood as similar to the Japanese urban neighborhood committee (*Cho-nai-kai*, *Chiiki-jichi-kai*) and that "it cannot be simply recognized as "residents' self-governing organization" in relation to public authority." He also says that it has the "ambivalent characteristics of the neighborhood self-governing organization and the lowest end of the governmental organization as a collaborator." ("Dai 2 sho: Chiiki kenryoku to 'shequ' kensetsu no hen'yo, hajimeni [Chapter 2: Community authority and transformation of 'shequ' construction, preface]" and

- “Dai 2 setsu: Shanghai kyomin”inkai no kozo [Section 2: Structure of Shanghai neighborhood committee]” in Kazuo Aoki, ed., *Chugoku no sangyoka to chiiki seikatsu* (Industrialization and community changes in contemporary China), Tokyo: University of Tokyo Press, 1996, pp. 111-113, 134-151).
34. The information was obtained through interviews with several neighborhood committees in the targeted areas.
 35. Based on interviews conducted in the targeted area.
 36. See also Yasuhara, *op. cit.*, pp. 141-147.
 37. A member of the neighborhood committee told us proudly that this particular work was appreciated by the residents. This remark is interesting because it shows how the members perceive what is expected of them.
 38. *Zhongguo huanjing bao* (China environment news), Beijing, March 16, 1996 and April 18, 1996. As for the mass media’s activities, it is important to point out that their influences are becoming weaker and weaker because of the “favorable report (*zhengmian baodao*)” policy (Liu Bing, “Zhongguo dangmian shengtai huanjing de baogao” [Report on current situation of ecological environment in China] in *1995-1996 Zhongguo shehui xingshi fenxi ye yuce* [China in 1995-1996 analysis and forecast of social situation], Beijing: Zhongguo Shehui Kexue Chubanshe, 1996, p.263).
 39. For studies on local communal management in Japan, see, for example, Minoru Nakada, *Chiiki kyodo kanri no shakaigaku* (Sociology of local communal management), Tokyo: Tohshindoh, 1993. See also Hiroyuki Torigoe, *Chiiki jichikai no kenkyu* (Studies on communal self-governing systems: The development processes of ‘Buraku-kai,’ ‘Chonai-kai,’ and ‘Jichi-kai’), Minerva Shoboh pub., 1994. For contemporary urban life style divided by “public phases” and “private phases,” see, for example, Yukiko Kada, “Seikatsu-kozo ‘Mizu no shakai-ka’ wo megutte” (Life structure: through a socialization of water processes) in Soichi Endo, Toshiyuki Mitsuyoshi, & M. Nakada, eds., *Gendai nihon no kozo-hendo — 1970 nendai iko —* (Structural transformation of contemporary Japan: Since the 1970s), Tokyo: Sekai Shisoshu, 1991, pp. 168-186.
 40. “1995 Zhongguo huanjing zhuangkuang gongbao” (1995 Report on the state of the environment in China) in *Zhongguo huanjing bao* (China environment news), Beijing, June 4, 1996.