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ADJUSTMENTS TO METROPOLITAN GROWTH IN AN INNER TOKYO WARD:
CITY LIFE IN JAPAN REVISITED

By

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Among all the countries endeavoring to develop their economies, Japan has achieved by far the most spectacular progress. Within Japan, Tokyo has led the way. Within greater Tokyo a constellation of centers (there are now five or six) and peripheral industrial areas have been newly built up to a highly productive standard. Henceforth much more attention must be paid to the remainder of old Tokyo. How does it fit into the megalopolis of the 1980's that the national government is now studying?

The central problem posed here is quite general. A program of economic growth, if successful, will result in the installation of critical pieces of urban infrastructure--transport terminals, water supplies, office blocks, public health facilities, communication systems, rationalized markets, and the like. Each project will induce adjustments among the older commercial establishments and residences external to itself. These adjustments are not centrally planned, often even not recorded, but follow rationales that are part of urban culture and tradition.

Can the process of adjustment lend itself to simple plans of self-renewal, or must the inner wards be subjected to massive surgery to remove obstructions to the creation of a modern urban society? These questions must be faced in Singapore, Manila, Teheran, Istanbul, Delhi, Karachi, Bombay, Calcutta, and other large cities within the next decade or so. The methods of investigation employed in this study were chosen

with the central problem in mind,¹ so that the techniques can be employed with minor modifications in such locales. Tokyo happens to be in the lead, therefore the pioneer studies are best undertaken there.

Fortunately for our investigations, one of the Tokyo wards has been the object of comprehensive studies that have provided benchmarks from which change can be gauged. Dore concentrated upon one precinct in Taito-ku as a means of depicting urban life in Japan during the period 1950-1953.² A multidisciplinary team, the first of its kind working at a ward level in Japan, undertook a study in 1964-65 leading to the preparation of a draft "master plan."³ In addition, the variety of data assembled on a ward basis has been greatly expanded since 1960, much of it published in the form of a quinquennial report of the ward government and a redevelopment proposal.⁴

LOCATION AND SIZE

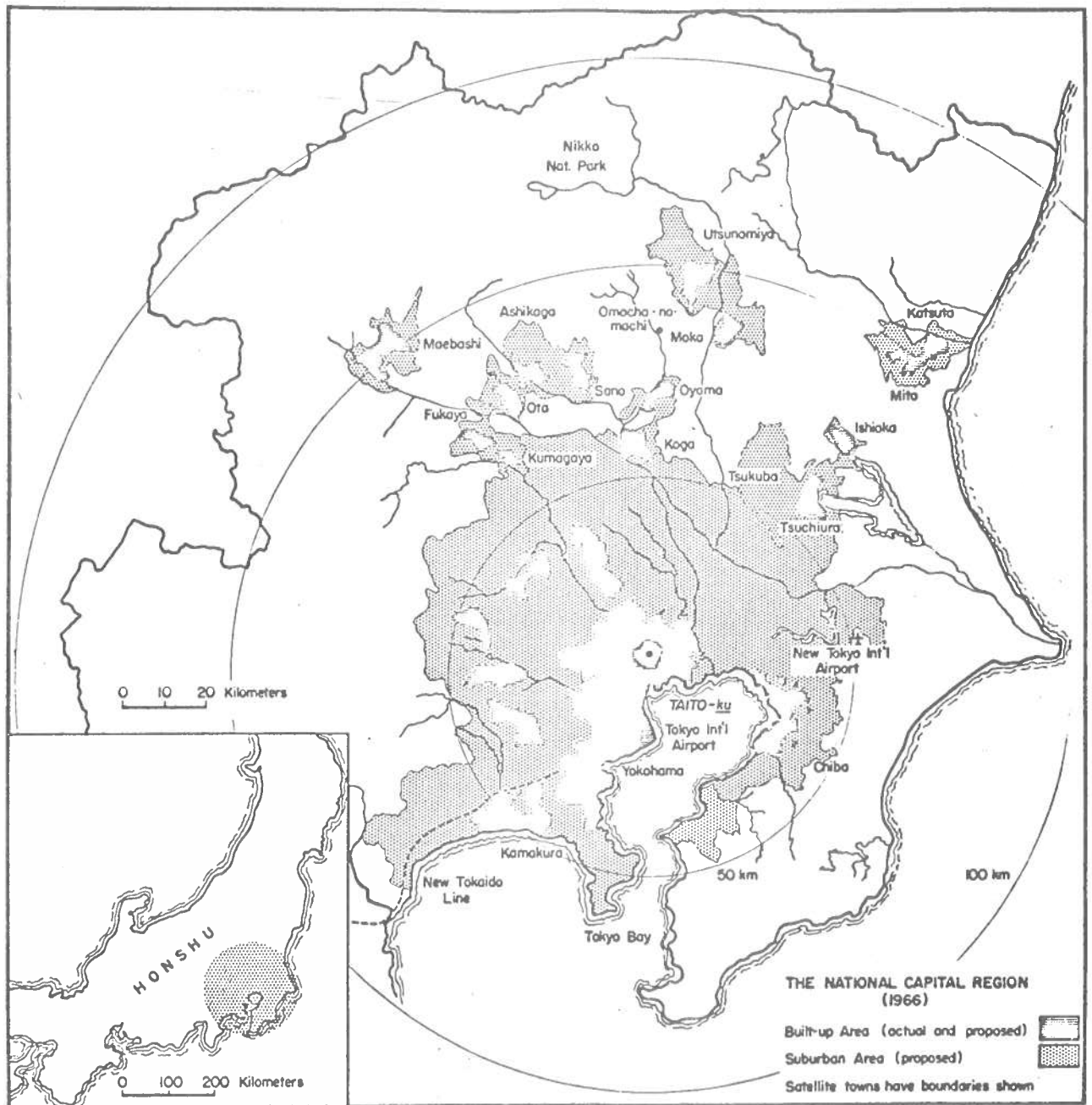
Among the seven wards filling the 3-8 km. band surrounding the heart of Tokyo, Taito-ku lies to the northeast of Tokyo Station, the commonly imputed center (Map 1). The subway trip, on the oldest and most heavily traveled line on the system, takes about ten minutes from station to station. Portal to portal trips between the ku and the principal offices in the Government require 20-45 minutes, thus making it a very convenient place to live as compared to the new suburbs where the time used in journey-to-work at the center (one way) ranges from 70-120 minutes.

¹An earlier broad assessment of the means for meeting the natural resource scarcities of cities in Asia had indicated a dearth of relevant experience or study on this critical stage in urban development (R. L. Meier, Studies of the Future of Asian Cities, C.P.D.R. Monograph Series, No. 7 [Berkeley, Calif.: Center for Planning and Development Research, University of California, 1966]).

²Ronald P. Dore, City Life in Japan (Berkeley: University of California Press, 1958).

³Kokumin Seikatsu Kenkyusho [Social and Economic Affairs Institute], Taitochiku Seikaihatsu ni kansuru chosa kenkyu hokokusho [Research Report Concerning a Master Plan] (Taito-ku Government, October, 1965).

⁴Taito kuyakusho, Taito kusei gaiyo [Taito-ku Official Handbook] (1964); Choki keikaku shian [Draft Long-Range Plan] (1964).



Map 1.

The airport (Haneda) can be reached only by traversing the congested center of Tokyo. Four electric railway lines connect with the growing suburbs to the north and west, one of which has been operating so far beyond capacity that an express line is being constructed.

Taito-ku has one of the major parks of Tokyo within its boundaries, together with many shrines and temples, but the beaches and the mountains are two hours out, either by car or train, and the electric trains have standing room only during the season. Thus residents of the ward must feel surrounded by city at all times.

Taito-ku compresses 260,000 persons (1967 estimate) into 10 km² of urban land, the resulting density being on a par with the highest in Tokyo. Among twenty-three wards, it is eighth in size of population and twenty-second in area. The land use is heavily commercial, so that business and residential activities are commonly found all jumbled together. It ranks fourth in persons per household (now a fair indicator of the degree of activity allocated to traditional trades, since additions to such families are made through apprenticeship) and ninth in male/female ratio (an indicator of bias due to immigration in recent decades). Table 1 relates these dimensions to the totals for the self-governing wards and the area served by the Tokyo Metropolitan Government. The full metropolitan complex in a few instances has expanded beyond the 50 km. ring and adds about 15,000,000 more persons.⁵ The relationship of the metropolis to the evolving megalopolis is shown by the population projections in Table 2.

The terrain of Taito-ku is suggested by the translation "east of the hills." Ueno means "higher fields," and Asakusa is thought possibly to have come from "short grass." The Ueno hills rise to about 18 m., having a narrow flood plain to the west and a broad alluvial area to the east. Asakusa provides a natural embankment for the Sumida River, 3-5 meters in altitude. Some land next to the river (about 5 per cent of the total area) has been reclaimed.

⁵Shigemi Kono, "Population and Household Projections for Development Programming in Japan," paper presented to the 11th Pacific Science Congress Symposium No. 1 (Tokyo, August, 1966). This is the South Kanto projection series prepared by the Ministry of Health and Welfare.

Table 1
POPULATION AND LAND USE (1964)

	Population (Oct. 1964)	Area (km ²)	Density (persons per km ²)	Subdivided Land (ha.)			House- hold Size	Males per 100 Females
				Commer- cial	Indus- trial	Resi- dence		
Tokyo metropolis	10,634,364	2,023	5,244	3,272	5,111	24,696	3.47	105.9
Tokyo, 23 wards	8,812,576	570	15,510	2,863	3,783	18,648	3.41	106.5
Taito-ku	303,460	10	30,637	370	9	77	4.15	107.9

Table 2
MEGALOPOLIS AGGLOMERATION*
(in millions)

Year	Tokyo Region		Kinki Region				Tokaido Megalopolis
	Metropolitan	North Kanto	Total	Tokai (Nagoya)	Kyoto- Osaka- Hyogo	Surround- ing Area	Total
1950	13.1	6.0	19.1	8.9	9.0	2.6	11.6
1955	15.4	6.0	21.5	9.5	10.2	2.6	12.8
1960	17.9	5.9	23.8	10.1	11.4	2.6	14.0
1965	20.7	6.0	26.7	11.0	12.9	2.7	15.7
1970	23.5	6.0	29.5	12.0	14.4	2.9	17.2
1975	26.3	6.1	32.4	13.2	15.7	3.1	18.8
1990	32.5	6.4	38.9	15.9	18.4	3.9	22.3
							53.3
							58.7
							64.4
							77.0

* Source: Institute of Population Problems, Ministry of Health and Welfare, 1964 projections.

REPRESENTATIVENESS OF TOKYO AS A WHOLE

Does Dore's assessment of the typicality of this ward remain largely true after fifteen years of reconstruction, modernization, and accelerated development? The extent to which Taito-ku shares in the strengths and weaknesses of Tokyo, now regarded as "the largest metropolis in the world," is best undertaken before its special functions and unique features are highlighted. The likenesses between the part and the whole indicate whether metropolis-wide policies can be instituted with some hope of local success.

The age distribution in the population maintains the same basic pattern, with somewhat heavier concentration in the 25-30 year bracket reflecting the strong immigration of a decade previous (Fig. 1). The crude birth rate was 14.8 per thousand in 1964 as compared to 16.1 for the 23 wards, while mortality was 5.1 per thousand as against 4.4 for all, part of the differential being traceable to the somewhat higher proportion of males in the Taito-ku population, and the remainder to the greater age of residents. Labor force participation and school enrollments, as may be expected in a fully employed metropolitan society, are equally normal. Educational attainments of the children, as judged by the numbers enrolled in senior secondary schools, are a trifle ahead of the metropolis. A study of geographical mobility, organized primarily to discover the implications of massive rural-urban migration, showed that the inter-prefectural movement of persons was 95 per cent of the Tokyo average (Table 3). Thus Taito-ku could no longer be regarded as a receiving center for immigrants, although the evidence suggested that its deconcentration (then only beginning) was distributing its population throughout the denser portions of the metropolis.

The rebuilding after the destruction of World War II laid down an inventory of structure very similar to Tokyo as a whole. At the beginning of the calendar year of 1965, Taito-ku was said to possess 62,100 dwellings, of which 40 per cent were in wooden structures, 50 per cent in wooden frame, fire-proofed exterior, and 5 per cent other, as compared to 60, 25, and 10 per cent, respectively, for Tokyo as a whole.⁶ The

⁶Ratios obtained from the Tokyo Statistical Yearbook (Tokyo Metropolitan Government, Bureau of General Affairs, Statistics Division, 1965) were rounded because ward statisticians believed that the definitions were rather fuzzy.

AGE DISTRIBUTION: 1964

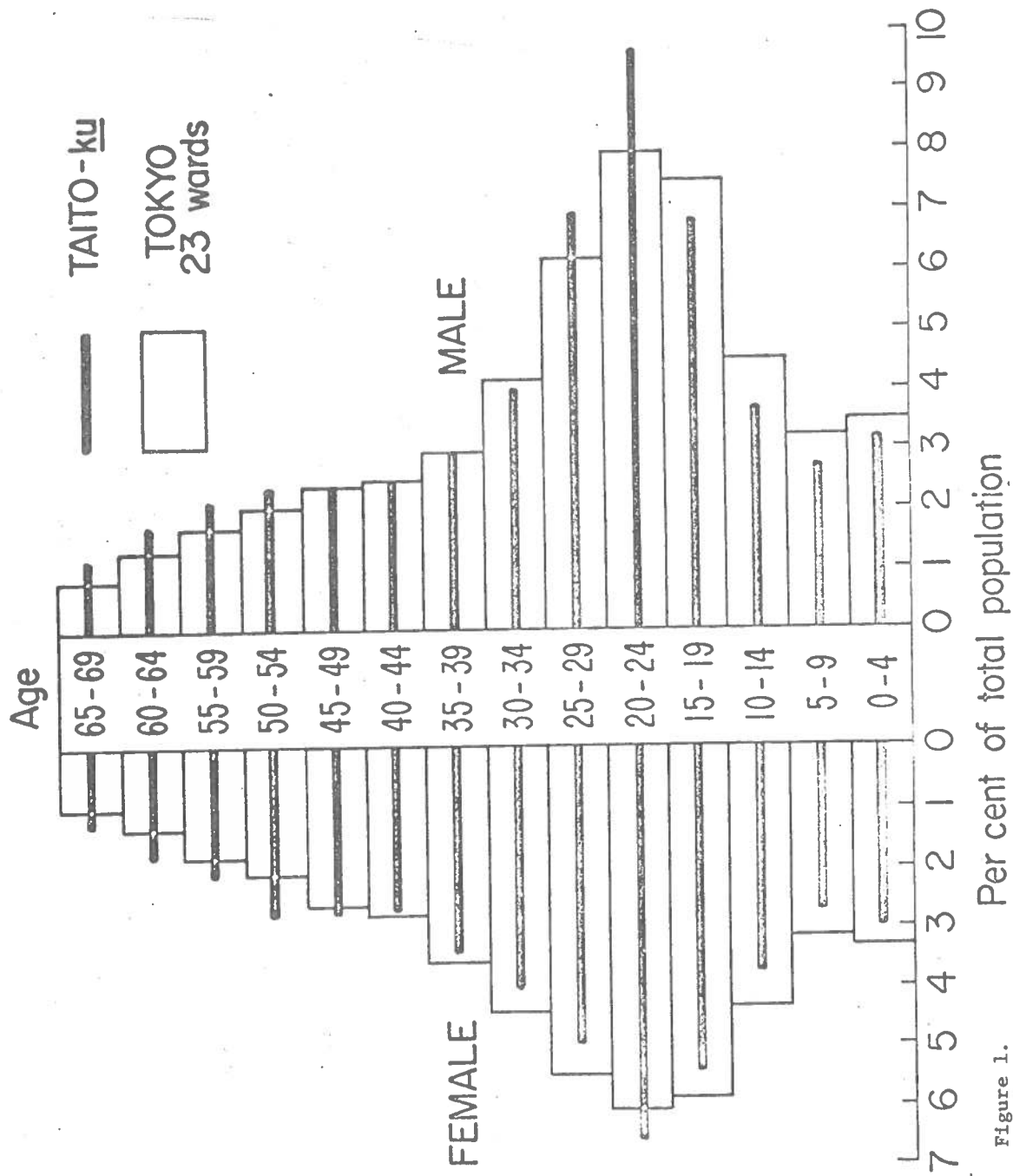


Figure 1.

POPULATION CHANGE IN TAITO - ku

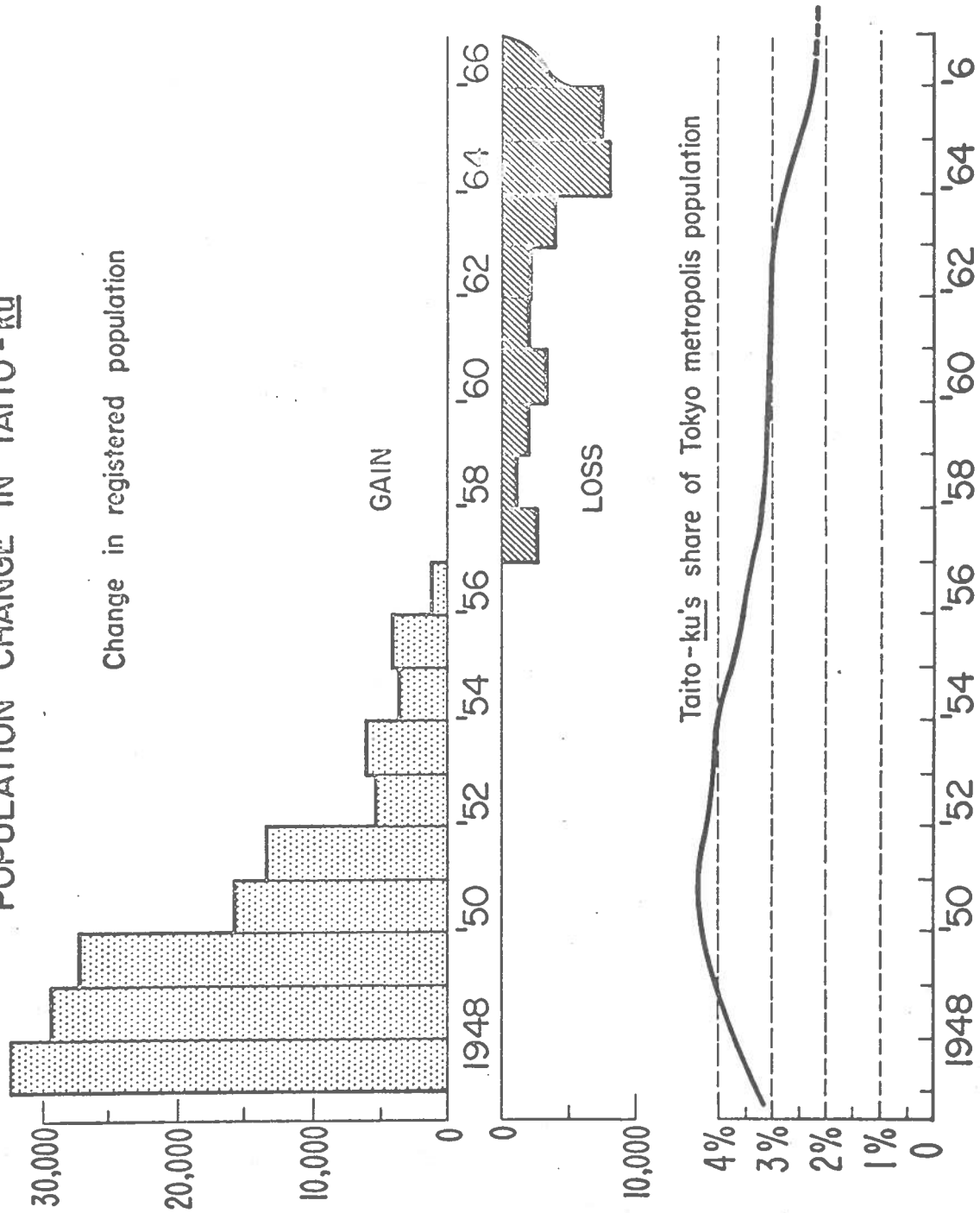


Figure 2.

Table 3
POPULATION MOVEMENTS

A. Change of Residence (based upon rice ration transfers in 1964)						
	Between Prefectures		Between Wards		Net Immigration from	
	In	Out	In	Out	Metropolis	
Tokyo, 23 wards	577,337	579,099	524,560	562,060	-	1,762
Taito-ku	18,103	18,052	11,021	20,011	-	399
B. Weekday Flows in 1960						
	Residual Popu- lation	Net Influx	Inflowing		Outflowing	
			Commuters	Students	Commuters	Students
Tokyo metropolis	7,354,964	499,470	2,250,539	539,088	1,820,190	469,957
Tokyo, 23 wards	6,347,055	645,402	2,108,050	500,324	1,556,058	406,914
Taito-ku	274,792	78,482	112,048	31,297	31,605	12,492

average living space in each dwelling in the ward was 16.1 tatami mats as compared to 17.3 for the metropolis and 15.1 for the area covering all 23 wards. The monthly rent for privately owned houses was ¥ 681 per tatami as compared to ¥ 676 for all of Tokyo.⁷ Local inhabitants' taxes per capita were 10 per cent higher than for Tokyo as a whole, a relationship which confirms the generally accepted income differential.⁸

The available statistics do show, however, some sharp deviations from the Tokyo norm. Taito-ku is foremost among all the wards in the number of business establishments. In August, 1963, its 31,105 firms were reported to have engaged 278,088 employees, and almost half of these were in the distributive trades. This concentration of smaller enterprises within a tiny territory produces a daily movement into the area that has certainly increased beyond the 30 per cent of residual population figure reported in 1960 for which Taito-ku provided destinations (Table 2). It was then exceeded only by the government center, the central business district, and the communications activities community. This specialization in commerce and small manufacturing shows up even more strikingly in the zoning to various uses (Table 1). The entertainment attractions explain a large share of the incidence of crime, because in this undesirable aspect it is third highest among all the wards, with a frequency per resident two-and-a-half times the metropolitan average.⁹

This population is predictably more conservative politically than Tokyo as a whole. In 1963, four Liberal-Democrats and a Socialist were sent to a Metropolitan Assembly. Ward assemblymen responsible for local government were chosen in the same election, with the result that 29 Liberal-Democrats, 5 Clean Government, 2 Socialists, and 2 Communists achieved office in Taito-ku. The Metropolitan Assembly was dissolved due to a scandal in the Liberal-Democrat ranks and the outcome of the new election in mid-1965 left the Liberal-Democrats with only 38 seats, while

⁷ A tatami mat measures 3 x 6 feet. The yen is worth 1/360 of a dollar and its purchasing power is very nearly the same as it was in 1950.

⁸ Japan, Office of the Prime Minister, Bureau of Statistics, Report on the Housing Survey of 1963, Vol. 3, Part 13 (Tokyo: 1965).

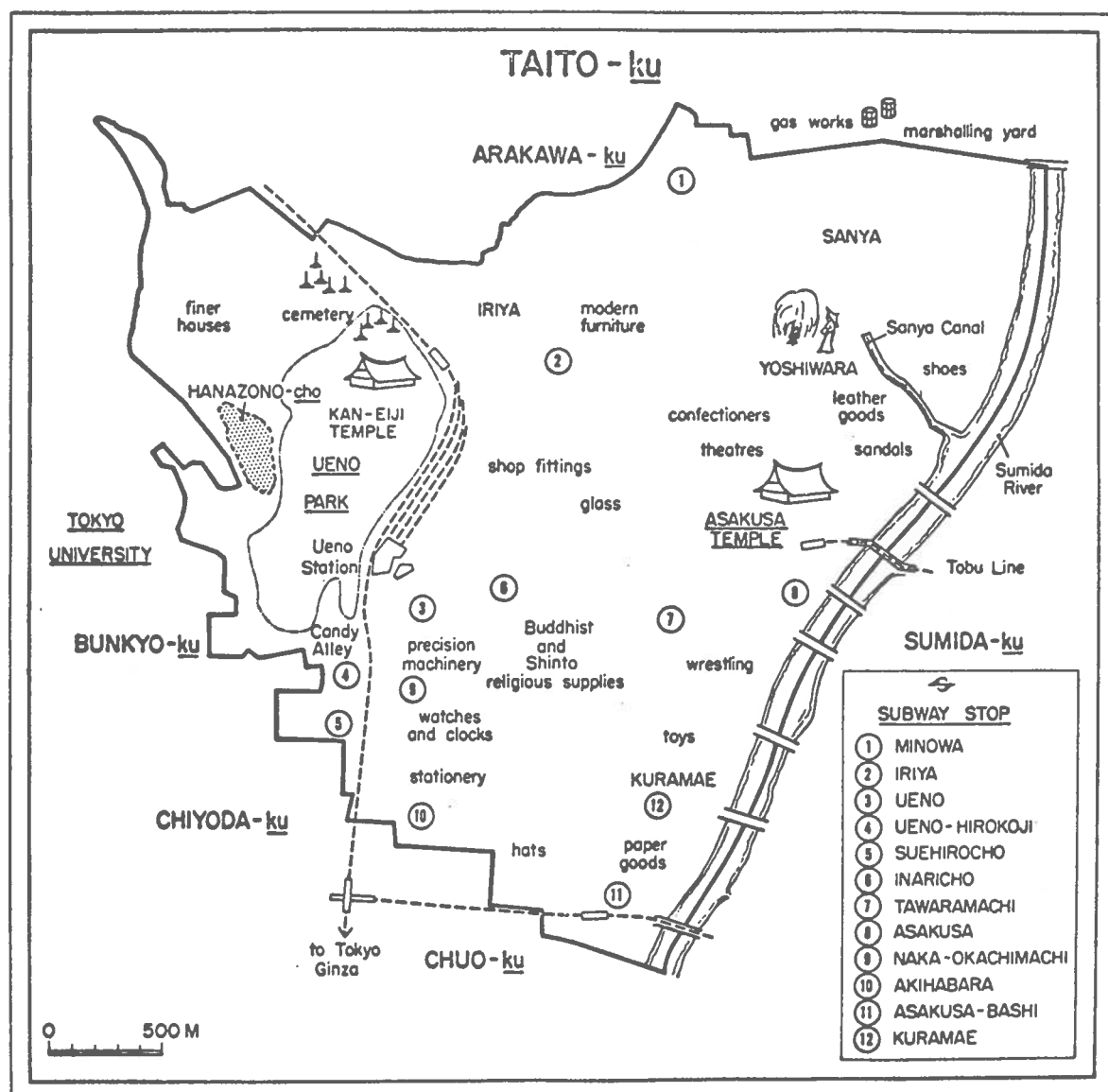
⁹ The kinds of offenses remain quite typical, with the exception that this area ranks high on arrests for "intellectual offenses," e.g., fraud, embezzlement, forgery, bribery, and breach of trust.

the Socialists acquired 45, Clean Government 23, and the Communists 9, with four in the Democratic Socialist splinter. The delegation from Taito-ku remained more conservative than the mass, with three Liberal-Democrats, one Socialist, and one Clean Government. Population shifts have left Taito-ku relatively over-represented in the Metropolitan Assembly, but there is no automatic provision for readjustment, as in much of America, so this situation may persist for some time to come.

EVOLUTION OF ECOLOGICAL STRUCTURE

Renewal in an inner ward of a metropolis depends even more upon evolutionary sequences in its history than the central area. Being under much less pressure for rationalization, however, it accumulates a more heterogeneous spatial distribution of activities. A polyglot metropolis will contain a variety of racial groups and ethnic communities. Although Taito-ku does have a strong representation of the principal minority group in Tokyo (the Koreans), such minority styles are no longer readily differentiated from the Japanese. The ecology is distinguished instead by the localization of specialized business and cultural establishments (Map 2). Their relationships are most easily understood in terms of historical developments in and around the ward.

The oldest living institution of Tokyo today is Sensoji Temple in Asakusa (Senso is a quasi-Chinese pronunciation of Asakusa). Founded near the bank of the Sumida River in A.D. 628 (it is claimed), less than a century after the introduction of Buddhism, the temple organized the social and cultural life of the rice-growers and fishermen in nearby villages and collected a group of artisans. The earliest record of events in the area (A.D. 835) suggests a rather heavy traffic of people to and from North Japan. In 1181, temple craftsmen were prestigious enough to be called upon to reconstruct the shogun's own family shrine in Kamakura. Only in 1457, when Ota Dokan, one of the leading feudal warlords of the fifteenth century--a period of almost continuous strife--established his castle in Edo (now the site of the Imperial Palace), were the trades and crafts of a castle town introduced. By this time, it is believed, Asakusa had been established as a small trading port and market center of sea products, especially laver seaweed (still called Asakusa-nori even when



Map 2.

it is produced elsewhere in the country) used for the traditional sushi in this territory.

The future of the Tokyo region was determined even more by the choice of Edo by Tokugawa Ieyasu in 1590 as his headquarters in a campaign for a reunified Japan. Ieyasu launched large-scale civil engineering works, laying out streets, reclaiming land, and digging moats and canals. Eta (untouchable) persons who held the monopoly on executions and the disposal of animal carcasses, but also provided labor for public works, were moved from the coast to a settlement which developed around Torigoe Shrine (said to be founded in A.D. 651), a kilometer to the north of Asakusa; their services played an important role in the building of Edo. Ieyasu generously supported Sensoji Temple by granting land and stipend in rice to the temple, thus leading to the development of a sizable temple town (monzenmachi). Later the Tokugawa family adopted the temple complex founded by Priest Tenkai in 1624, using the Ueno hills as their mortuary. This action resulted in the development of both the estate that was to become Ueno Park after the Meiji Restoration and a monzenmachi at the foot of the hill which was to become a bustling shopping district.

The shogunate government's device of requiring alternate years of residence in Edo for all feudal lords set into motion a number of logical elaborations. Service personnel accumulated so rapidly that Edo became (quite likely) the world's first million-size city well before the end of the eighteenth century.

A significant event was the removal of the courtesans of Yoshiwara to an area north of Sensoji Temple after the great fire of 1657. A need was felt for localizing the gay life of Edo and keeping it under police control. Thus a new Yoshiwara was constructed in the midst of paddy fields, which was moated and left with a single entrance (the "Big Gate") and 10 p.m. closing hours. The same fire brought the removal of many temples from the destroyed parts of the city, so that this ward was occupied by many more religious orders. Artisans followed the temples, thus establishing a major industry. The remainder of the ward was settled by lesser lords, the warrior class (samurai), and merchants during the eighteenth century. Maps of the period suggest that the proportions of

land owned by lords, samurai, temples, and shrines were much higher in Taito-ku than in Edo as a whole, leaving much less for townspeople.

The shogunate government, as part of the austerity policy of 1842, ordered theaters scattered throughout the city to move to a district north of Sensoji Temple. Thus a new amusement center, called Saruwaka-cho after the early Kabuki actor, came into being. Completion of a shopping arcade leading to Sensoji Temple, and the establishment of many restaurants and geisha houses, together with the nearby attractions of Yoshiwara, made the Asakusa area by far the most popular amusement district in pre-World War II Tokyo. In 1915 Tokyo had twenty-three cinemas, but seventeen of these were concentrated in Asakusa, and what is more, all the foreign films had their first runs there in subsequent decades. Other cultural facilities--a total of thirteen museums, art schools, zoos, and concert halls--have been built in the City of Tokyo park which was once the Shogun's estate on Ueno hill.

The Great Earthquake of 1923 destroyed almost half of the dwelling units and reduced the population from a half million (1921) to 275,000 ten weeks after the catastrophe. Hanazono-cho, the focus of Dore's study, was one of the few residential areas to survive the earthquake almost unscathed. The present street grid, unusually liberal, resulted from the readjustment of plot boundaries concurrent with the reconstruction. During World War II, fire damage in the Asakusa sector was 98 per cent, and the remainder of the ward was affected much more seriously than the Tokyo average. The first task faced in reconstruction was the disposal of an enormous quantity of debris; work began in earnest in 1947 by filling in moats and canals (selling the new land to pay the bill!). By 1950, only a shortened Sanya Canal remained in Taito-ku.

Railroads inflict a new spatial ordering when they invade cities. The Tohoku (Northeast) trunk line of the National Railways leading to Aomori, the northernmost major city of Honshu, opened its Tokyo station at Ueno in 1882. The first subway of Tokyo connected Ueno with Asakusa in 1927, and was later extended to become the Ginza line. Private railways entered during the 1930's, and more subways in the 1960's, with the result that street car lines have been dying out.

The very last paddy fields in the area disappeared at the beginning of the Meiji era (1870's). At that time, Sanya filled in with cheap inns catering to travelling entertainers, patent medicine pedlars, and the riff-raff attracted by the crowds. It was there that the innovation called "silkworm shelf bedroom" was introduced, after a crackdown on prostitution, so that a small, 6-mat room could accommodate up to eight persons. Apartment houses renting single rooms (apato) are also very common. As many as 60,000 casual laborers and dependents can be put up in this area (a third of which is in Arakawa-ku), now often referred to as Tokyo's Skid Row.

Around the mouth of the Sanya Canal, not far away, is the district once assigned to the eta, where their leather-working skill, once devoted to armor and the making of drums, led to the establishment of a shoe industry needed for Westernizing men's attire in Meiji times. Most shoe wholesaling and warehousing is maintained there to this day, together with a number of specialized artisans making zori and decorated sandals.

Other wholesaling centers have similar origins. The special garment district evolved from the demands for fine clothing on the part of the women of Yoshiwara. Some of the Buddhist equipment stores (for ancestor worship and temple furnishing) had even more ancient beginnings, but on sites closer to the temple. We suspect that the rice straw from the granaries of Kuramae in Tokugawa times started paper production on the canal surrounding it, thus leading to the growth of a stationery and paper products district, to which toys and sheet plastic products were a natural addition. Similarly, artisans working the base metals and selling to tourists at the temple split in two directions, the iron-mongers servicing restaurants and inns were reinforced after the Earthquake by the confectioners who moved as a body from a locale near the center so that shop fittings of all kinds were offered in increasing quantities, while the jewelry makers moved into clocks, precision machinery, gears, chains, etc. The "Candy Alley" section near Ueno Station has undergone many transformations in recent times, shifting from an ordinary tourist-serving line of shops to one of the nation's leading black markets, dealing in whatever was scarce. After 1955, when prices stabilized, pinball

machines, bars, and coffee shops entered. Bargain hunters still come, and small-time smugglers sometimes make it worth their while.

We note that significant changes occur remarkably rapidly in the wholesaling districts, reflecting the shifts in consumer demand and the modernization of the distribution system in the country as a whole. Thus umbrellas and radios virtually have disappeared over the last decade, and bicycles remain only in the shops of a few craftsmen of racing bicycles, the parts supply warehouses, and headquarters for the paperwork of wholesaling. Clocks and watches are prosperous, and shop fittings have pushed into the Buddhist equipment territory. The bulk of Western furniture, including luxury television, is upending the skyline around Iriya Station. Wherever the market is weak, as with hats and gloves, the locale is invaded by service shops, groceries, and fruit markets. The succession sequence is important: When business is excellent the latter are bought out by expanding business and homes or businesses on the edge are converted to establishments for the innovators in the business.

MODERNIZATION AND ADAPTATION SINCE 1950

The structures in a city may be regarded as the protective shell of a sessile organism--the urban community--some parts of which are renewed rapidly while others turn over very slowly or spasmodically. The buildings in Taito-ku are newer than would be judged from personal inspection. In 1963, the building inventory included 20 per cent pre-War structures, 30 per cent that were 13-18 years of age, 20 per cent that were 8-12 years, 15 per cent 3-7 years, and 10 per cent less than three years, with a total stock of 6,300,000 m². Only 14 per cent of this was in relatively durable concrete types, the remainder being of unpainted wood (once called "houses for burning" by the residents because that seemed to be their destiny) or of wood frame, usually with stucco siding.¹⁰ In the succeeding year, 53,000 m² of structures were cleared away and 243,000 m² authorized for construction, of which half was for dwellings.¹¹ Thus, in

¹⁰Data obtained from the statistics section of the ward office.

¹¹Most of this information is provided by the Tokyo Statistical Yearbook (op. cit.), Tables 189-190; the remainder from the ward office.

fiscal 1964, a relatively good year for construction nationwide, only three per cent of the building stock was renewed as compared to a rate of ten per cent in the preceding four years. This reduction in rate of self-renewal seems to coincide with an acceleration in the flight to suburbs as indicated by the drop in residential population (Fig. 1). The reasons for the slowdown are only just now becoming evident.

All during the 1950's and early 1960's, Tokyo was forced to complete the reconstruction of war damage while at the same time accommodating a huge influx of rural immigrants. In Taito-ku, the space demands of new commercial enterprises were in competition with the demand for shelter by the residents, whose income was increasing by at least ten per cent per year during this period. As the wholesaling and retailing firms moved from the barter period of the early reconstruction into a non-inflationary period with enhanced supplies, their turnover increased and labor productivity improved, but the number of establishments in this category also leveled off (except for "restaurants," where the popularity of the coffee shop as a place for relaxation made room for perhaps a thousand extra eating places). Smaller manufacturing organizations came up strongly during the whole period, with 3,883 reported in 1953 and 8,610 in 1963, and the size distribution (average about ten employees) remaining very nearly constant. The population of motorized vehicles, their servicing, residences, commerce, and industry entered the scene with almost an explosive expansion in numbers.

Urban land values are particularly sensitive to changes in economic activity, but the response in Japan has been extraordinary, to say the least. Land prices in Tokyo over the decade 1955-1965 increased from an index level of 100 to a level of 876 at a time when wholesale prices were virtually constant (0.4 per cent rise per year). Taito-ku has lagged behind, with an index of 577, making it after Chuo-ku (which contains half of the CBD) the slowest among the twenty-three wards.¹² A partial explanation is to be found in the slower appreciation of commercial land in the city, but more particularly in the lessened interest in land used for amusement. Nevertheless, the ward had recaptured its lustre in

¹²H. Shimada, "Transition of Land Price in Tokyo (23 Wards)," The Real Estate Research Quarterly Journal, Vol. 8 (July, 1966), 55-61.

commerce, as evidenced by the highest land value as a function of that for the center of the Ginza, since in 1938 this was 60 per cent, had dropped to 43 per cent in 1958 but was back to 59 per cent for the 1960-65 period. Land prices in the other inner wards also lagged behind the average unless they were fortunate enough to acquire an advertising and mass media center or a very large metropolitan sub-center in the interim.

What brought about this astonishing re-evaluation of urban land? Fortunately, a careful analysis, recently published, is able to answer this question with considerable precision for residential land.¹³ A multiple regression analysis revealed that accessibility to the center was, of course, important but susceptibility to fire and disaster had a strong effect also and proximity to industrial areas had significant negative influence. Freedom from congestion had a positive effect, as had the availability of retail services. Children's playgrounds and nearby medical services did not improve predictability significantly. Taken together, these factors can be used to predict the price of land in Taito-ku as accurately as it can be measured with field data.

In December, 1965, the average value of residential land in Taito-ku was estimated as ¥ 130,000/tsubo or \$10.90 per sq. ft. with the lowest quotations at real estate offices being ¥ 100,000 for plots that could be reached only by lanes too narrow for cars, and ¥ 200-300,000 for land useful both for residence and business. Prime locations on the market were quoted at ¥ 500,000 to 650,000. Since a new building costs \$5-10 per sq. ft. of floor space and buildings are fully amortized in less than twenty years (except in the case of concrete, where land leases extend to 30-35 years), very little attention is given to the quality of a structure on a plot. These values have been achieved so rapidly, and are associated with so many other changes in methods of doing business, that the price structure has not yet come into equilibrium. Parking charges, for example, do not exceed ¥ 100 per hour when the land value of a single parking space is at least ¥ 2,000,000 (and the original cost of a car or a mini-van is ¥ 600,000-1,000,000).

Since the War, about half the ward has been made more accessible due to new subways and trolley bus lines. Service on the electric

¹³S. Ishiwara, "Analysis of Land Value Components," *ibid.*, 48-54.

railways serving Ueno Station has been vastly improved. Subway passengers using Ueno underground stations multiplied by 2.3 times between 1958 and 1963,¹⁴ most of the increase taking the form of transfers from the suburban lines running to the northeast.

Far more spectacular, however, has been the impact of the automobile. In 1950, the ward still operated on a bicycle and hand-cart basis, but it had an advantage that only a small part of the rest of old Tokyo possessed--the redefined grid of wide, straightened streets introduced after the earthquake of 1923. Thus Taito-ku had 25.2 per cent of its territory in road and street, while only 0.6 per cent of the streets were in the 5-m. width so common in other inner wards, whereas all wards averaged 17.2 per cent (13.5 per cent for adjacent Bunkyo-ku). Thus the circulation space for trucking and for taxis has generally been ample, and traffic tie-ups have thus far been brief. It is this factor, perhaps more than any other, that has expedited the growth of light manufacturing in the ward.

Auto registration on a ward basis may be increasingly less meaningful in Tokyo, as in most metropolises, but for the city (later the metropolitan areas) they are highly significant (Table 4). The total in operation multiplied sixteen times over a fourteen-year period. When it is recalled that the typical small car or light truck requires 6-9 m² on accessible land, parked as economically as possible, it can be seen that the typical vehicle requires space equal to 3.5-5.0 tatami mats. Extrapolating the trends in housing to the present (Table 5) suggests that the floor space per capita in 1966 should be equivalent to the parking needs of a vehicle.

Perhaps an even more significant index of modernization is the telephone. By 1966, the supply of telephones was close to catching up with demand in Taito-ku, although in the growing suburbs of the metropolis the expected waiting time might be as long as two years. Allowing 1.6 telephones per line, as an overall average, Taito-ku has reached a level of one telephone for every 2.5 persons, as against 4.0 for Tokyo metropolis (Table 6). Comprehensive telephone coverage allows much

¹⁴Taito Kuyakusho, Taito kusei gaiyo [Taito-ku Official Handbook], (1964), p. 238.

Table 4
Vehicle Registration in Tokyo
 (000's)

	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1964</u>
Automotive (all kinds)	65	240	608	1063
Trucks, ordinary		17.9	29.6	50.1
" small 4-wheel		19.2	111.8	275.0
" " 3-wheel		54.1	72.4	38.1
" trailers		0.3	0.8	0.8
Sedans, ordinary		27.4	32.4	27.8
" small		23.9	114.4	321.1
Buses		3.7	6.4	10.2
Special		2.5	9.6	19.6
2-Wheel		5.9	7.2	8.1
Light 4-wheel (mini.)		-	13.6	156.2
Others	(1)	84.4	210.3	156.3

(1) Reported at that time were 76.0 thousand hand carts, 7.9 thousand horse or ox carts, 1.6 thousand pedicarts, 836 thousand bicycles, and even 319 rickshaws.

Registered in Taito-ku

<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
23,690	26,590	29,801	32,776	36,699	42,431

Table 5

Housing Stock Accumulation

	<u>Tokyo, All Wards, Number</u>				<u>Taito-ku</u>		
	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1963</u> (Survey)	<u>1950</u>	<u>1955</u>	<u>1960</u>
Ordinary Households	1,228,771	1,455,342	1,943,599	2,531,000	57,766	56,811	64,388
Dwelling Units	1,195,234	1,441,134	1,936,221		54,200	55,420	63,407
Owned	547,358	771,707	866,804		29,325	33,079	32,445
Rented	350,787	394,386	814,193	997,000	13,336	13,421	23,540
Issued	83,385	98,141	132,558		1,812	1,452	2,105
Room Rented	213,183	176,900	122,666	143,000	9,654	7,468	5,317
Dormitory	33,348	3,186	1,967		556	75	11
(non-dwelling)							
Others	54	11,022	5,411		10	-	970
Quasi-Households	101,646	120,927	131,972	129,000		4,729	3,022
<u>Tatami/capita</u>							
Dwelling Houses	2.8	2.87	3.33	3.95	2.7	2.72	3.25
Owned	3.1	3.19	3.85		2.8	2.93	3.65
Rented	2.4	2.40	2.59		2.7	2.36	2.53
Issued	2.7	2.98	3.43		2.9	2.96	3.47
Room Rented	2.2	1.90	2.15		2.2	1.79	2.08

(In ^{the} 1963 Housing Survey 66,700 households in Taito-ku
averaged 3.75 tatami per capita.)

Table 6
Telephone Service Development

Tokyo Metropolis			
<u>Year</u>	<u>Telephones</u>	<u>Telephone Calls</u>	(units)
1951	354,718		
1952	412,432		
1953	480,942		
1954	563,851		
1955	638,979		
1957	835,744	1,828	million
1958	954,267	2,084	
1959	1,098,187	2,418	
1960	1,287,206	2,701	
1961	1,494,422	3,030	
1962	1,721,602	3,524	
1963	1,974,829	5,005	
1964	2,315,368	7,039	
Annual Average Growth Rate	14%	18%	

	<u>Telephone Lines</u>	<u>Taito-ku</u>
1956	394,000	33,500
1966	1,521,000	70,800
Annual Average Growth Rate	14%	$7\frac{1}{2}\%$

Source: Japan Telegraph and Telephone Corporation.

better programming of deliveries and other services and smooth operation of the commodity and securities markets. They very likely contribute most to the productive capacity of the inner wards, while the auto registration is the best evidence that highly cherished articles of consumption were coming within reach. Ownership of television, refrigerators, and washing machines was already approaching saturation due to the cramped living spaces available.

The gross statistics suggest that the ward is losing residents very rapidly, but is adding some jobs and more vehicles. As incomes pass a threshold somewhere below ¥ 2,000,000 per year (\$5,500), a private car becomes economically feasible. However, uses for the car are extremely limited due to bottlenecks at the bridges of the Arakawa Canal. Further saving leads to the acquisition of an apartment or a house in the suburbs that can be reached by railroad from the ward. Often an attempt will be made to transfer the business as well, if it is not tied too closely to the locale. (Most small manufacturing must be in daily contact with wholesalers.) Some of the people and virtually all of the businesses that manage to migrate are replaced, often by refugees from flood-threatened wards where they were brought out by government. Influx from the rural areas, mostly seeking employment in construction and small industry, is still evident but declining rapidly as the reduced cohorts come of age. We infer that wealthier and better educated people are drifting out, the poorer stock are moving in, and localized, severe traffic congestion is at hand. The lower replacement rate for structures is another significant trend. These conditions are symptomatic; they herald the onset of urban blight, a phenomenon so rare in Tokyo that it has yet to be studied systematically in that environment. Surveys completed in 1963 designated about ten per cent of the ward to be "dilapidated," most of it in peripheral, medium-density areas, but now standards must be raised due to higher metropolitan income and education in the face of environmental conditions in the ward which are generally static, but in some areas actually deteriorating.

METHODOLOGICAL RECOMMENDATIONS

The problem that was posed at the start may now be restated: What is the place of the inner wards in the development and expansion of the metropolis? What functions will they have in the process of megalopolis formation?

No general answers to these questions can result from this study, because an empirical investigation of an urban district carried out at any depth at all will uncover the uniqueness of the area and further work serves to heighten the differences more than the similarities. We are able to list scores of apparently significant characteristics which distinguish Taito-ku from the other wards of Tokyo, Osaka, and Nagoya, as well as Hong Kong, Singapore, and Manila, to mention other wealth-generating metropolises in East Asia. However, we shall propose instead relatively effective methods for discovering the developmental problems likely to be encountered, and introduce some directions to look for solutions. Strategies for search and resolution are quite general. The emphasis must be on economy, rather than elegance, because the skills needed are scarce and the number of instances requiring study is expanding rapidly.

Our findings are of two kinds. One set outlines investigational approaches which we have found productive and are likely to be so elsewhere. They reinforce the comparative approach in international and institutional studies that has begun to contribute so productively to theory building in the past few years. The second is an assessment of the prospects and potentials revealed for a single Tokyo ward. We shall present the methodology in a stepwise fashion and the specific conclusions reached immediately thereafter.

1. Discover the extent to which the inner ward is typical of the metropolis as a whole. Although refined statistics are required to do a thorough job, most of the computing effort can be saved by prior checking on the quality of the data. A predominant share of the equivalences can be identified by inspection and checked by brief interviews. In whatever features the ward is shown to be typical, it may be expected to respond to citywide or nationwide action as part of the majority viewpoint. Wherever the most competent development planning is to be found at the

national and regional levels, it is important that as many planning tasks as possible be delegated to the upper tier units of government.

In Taito-ku the age distribution, income levels, educational achievement, and lifestyles were found to be close to the Tokyo mean. Distinctions of caste and ethnicism, although identifiable in public records, have been submerged into the dominant culture. Land prices are in equilibrium with metropolitan forces and close to the mean. Therefore in the major issues of education, social security, and administration (about 70-80 per cent of governmental activity as measured by budgetary allocations), Taito-ku may be expected to side with the majority and its needs are likely to be met by comprehensive plans worked out in the respective ministries or by Tokyo Metropolitan Government.

2. Similarities are usually outnumbered by significant differences in a region as complex as a metropolis. The distinctions can be clustered so that social, economic, cultural, and geographic phenomena are correlated. The differences suggest what kinds of unique problems may appear, and what institutions may undertake responsibility in treating the difficulties.

Even for Tokyo, Taito-ku is very densely settled, despite the predominance of one- and two-floor wood frame buildings. It also possesses the highest concentration by far of small manufacturing, wholesaling, and retailing enterprises. In addition, the proportion of quasi-households is high. The most important fact affecting the future, perhaps, is that its population has started to decrease rapidly, not unlike the remainder of the interior of Tokyo, except the efflux from Taito-ku is the most rapid of all. Politically, the ward has been quite conservative, but this complexion too may now change very rapidly.

3. The respective ecological communities often have formed trade or ethnic associations. If they are well organized, they will have collected their data and may even formulate their own proposals for future urban development. Otherwise, a secretariat of some kind will have already formed which has detailed knowledge of extent of influence, resources, and potentials. Information of this sort is subject to many more sources of error than government-collected data, so the kind of bias must be ascertained from independent informants.

The best organized trade group in Taito-ku appears to be the Ueno Merchants Association, which prepared plans for the redevelopment of the Ueno Station area in 1963 and again in 1965--plans substantial enough to gain the backing of the Metropolitan Government planners. The Asakusa merchants have greatly improved the presentability of their commercial area by adding new arcades. In 1962, they proposed a thorough redevelopment, with a high tower as a landmark. Even the Sanya hotel owners undertook an interview survey of the residents in their area, seeking to discover characteristics of the family unit, source of income, and employment security.

4. More difficult to cope with are the disorganized non-communities that one expects to find in such wards. A social structure exists, but it is a loose web with weak social controls and is easily stretched to the breaking point. Due to the unreliability of sampling techniques and incoherent, often conflicting, verbal responses, data for such non-communities are rarely better than gross estimates. The implementation of plans in such areas involves either the use of coercion (police powers) or very extensive case work, both of which are inordinately expensive.

The major phenomenon of this kind of Sanya, although a thousand or so floaters may be found in the vicinity of Ueno Park and Ueno Station. The numbers are difficult to estimate because the rice ration registration used as a means of keeping a monthly check on population shifts in Japan is evaded. These people do not cook their own rice, but live out of cheap restaurants for months at a time. Alcoholism and narcotics addiction are known but are not yet the major problem experienced in America and Europe. Much more needs to be done in the future to reestablish sympathetic contact with these populations and resolve as many personal instances of injustice as can be found. Sanya also needs more public facilities, such as hiring halls, reading rooms, bathhouses, and small parks, all of which should introduce more organization into this semi-transient population.

5. Trend data for subdivisions of a metropolis are especially difficult to obtain due to the shifting of boundaries of census tracts and political subdivisions. Annual data, if available, rarely go more

than a few years back. An advisable policy, then, is to piece together a descriptive history of the major institutions and specialized communities, deducing from it the forces that created and maintain them.

Early establishment of the large temples brought about the major differentiation of Taito-ku from other inner wards. Their monzenmachi built up an emphasis upon trade and amusement. After the cataclysms of fire, earthquake, and typhoon, complementary activities such as theaters, licensed prostitution, and small manufacturing were moved into the vicinity. Terminals and nodes in the growing regional transport network naturally developed in these locales and brought with them an increased variety of goods and services. The wholesaling districts in some instances grew out of these developments, in other instances from the suitability of the Sumida River for water-borne freight. Some wholesaling communities have recently been dissipated or eliminated due to changes in the nationwide organization of distribution initiated by department store chains or large manufacturers, with toys scheduled to leave next. Most of the remainder are threatened by the rationalization of markets in the metropolis brought on by the completion of a basic expressway network and resulting opportunities for efficient trucking.

6. Recent historical information can be reinforced and extended by systematic observation of public imagery. Materials and images in structures and artifacts which have been introduced in the past decade or so can be listed, many of them recorded objectively in detail and context by photograph. Are they new additions or replacements? How do they relate to the imagery changes in the public communications of the metropolis? Recent adoptions indicate the pathways that already exist for effecting change, particularly what kinds of external contacts are most effective.

Adaptations to the automobile and television provided the most striking changes in the fifteen years since Dore's study, City Life in Japan, was conducted. Refrigeration and the distribution of bakery goods changed the product line of the food shops. Improved economic opportunity removed all the pedlars, handcarts, and many cyclists from the street scene. Only the ragpickers can be found. Posters and tags from ward government and metropolitan government proliferated. Plastics invaded buildings as a substitute for corrugated iron. They have also brought

about a notable reorganization of the toy industry, and have taken over a large share of packaging. Traditional products on display showed no detectable change in the interim. The newer intangible images employed in urban culture, assessed with the aid of a current dictionary of neologisms, indicated that the borrowing of images was predominantly from America via Madison Avenue, television, films, and the promotions of local department stores. The emphasis shifted from welfare and reconstruction in 1950 to male amusements in 1965. Law was the least affected by outside influences among all the urban technical professional categories.¹⁵

7. A review of metropolitan institutions and activities with very high growth should also be undertaken to discover whether the ward may not serve some new function in the near future. Instances of rapid growth in a city are very visible and much discussed, so there is little likelihood that a survey of current publications would overlook something important.

The anticipated expansion of the University of Tokyo into a leading graduate school and a world-reknown center of research may cause some of its activities and the services to them to spill over into the western fringes of Taito-ku. The skyscraper boom now beginning for Tokyo may induce many small to medium firms in the central area to move into the inner wards. Also, land-owners in a few neighborhoods endowed with greater than average amenities will be urged to build high rise apartments. All of these external forces are together unlikely to produce the amount of redevelopment needed to renew and modernize the structures in the ward, so internally generated action is required.

8. The construction of proposals and programs that map out the future is also strongly dependent upon the powers delegated to the respective tiers of government. Often a ward has no authority whatsoever to plan, but it will always have some political influence and therefore can get much of what it wants for the future accepted by agencies with authority to take action. This de facto ability to implement a modest plan is often followed by de jure responsibilities.

¹⁵ Richard L. Meier and Ikumi Hoshino, "Urban Growth at the Micro Scale in Japan," (unpublished paper, 1967).

Because annual improvements in productivity are so great and new opportunities are appearing on the horizon so frequently, a master plan for redevelopment would become obsolete about the time it was adopted. Possibly a specifically designed area development corporation could be assigned the task of improving the quality of land use, a concept for which a variety of precedents exist. It should promote, participate in, and sometimes create solely on its own initiative, a large number of self-sustaining projects. The ward administration would then undertake only those projects which have little chance of paying their own way but are popular with voters and remain strongly in the public interest. For example, the ward would find it easy to get support for a number of sub-branch libraries or study centers. All efforts must work within a common policy plan, but each develops its own medium-term objectives and program of operations.

9. One warning needs to be raised at this point. Many inner wards are battle-grounds between communities so suspicious of each other that they are willing to resort to violence to prevent the other from "getting ahead." When such a polarized condition exists, plans must give highest priority to the reduction of the deleterious effects of this conflict. The planning strategy in a conflict situation is quite different.¹⁶

The riots in Sanya suggested at first that, of all the wards in Tokyo, Taito-ku may be the site of such an endemic conflict. However, all the evidence we have assembled points to a collective outburst directed at the first target available. The population of the poor and insecure is not well-organized, and no specific antagonist exists.

CONCLUSIONS

In Tokyo, the growth functions of the inner wards like Taito-ku in the formation of a greater metropolis or megalopolis can now be proposed:

1. They distribute goods and services to consumers in the cities and their hinterlands, but are chiefly responsible for exploiting the

¹⁶R. L. Meier, "Some Thoughts on Conflict and Violence in an Urban Setting," American Behavioral Scientist, Vol. 10, No. 1 (1966), 11-21.

popular innovations (artifacts and images) borrowed or invented by the tastemakers in the central wards;

2. They transform rural immigrants into established urbanites capable of making a living elsewhere in the metropolis;
3. They provide convenient locales for the residence of persons not committed to suburban living who maintain the alert, aggressive, opportunistic sub-culture necessary for rapid economic development, a relatively cosmopolitan successor to the Shitamachi spirit of old Edo;
4. They offer sites and local support for major educational, research, and cultural institutions which must grow more rapidly than the economy as a whole but do not have the resources to displace neighboring institutions in the central wards;
5. They export internal savings to a far greater extent than is normally mobilized from outside sources. Due to this unequal exchange, the physical equipment ages and debilitates relative to the core of the metropolis and the outer residential areas, so that an increasingly severe urban renewal problem results.

Tokyo's task is simpler than that facing most other cities because the minority ethnic and religious groups have already been integrated into the culture, but the existence of Sanya is evidence that even then serious civil disorders will stimulate a search for techniques of rehabilitation.

New development corporations at the ward scale appear to be an appropriate device for remedying the situation. They can be linked quite easily to megalopolis-scale planning by administering the projects vital to this new level of urban organization. They should be able to serve as agents of organizations in both the public and private sectors on a contract basis. The multipliers inherent in the demand for higher quality services (e.g., postgraduate education, advanced medicine, convenient middle income housing, urbane amusements, etc.) discernible in the developing urban regions can then be put to work renewing the inner wards.

ILLUSTRATIONS

1. The Shinto shrine that was "urban redeveloped." It sold its land to the promoter of a luxury apartment house and was reestablished as the penthouse garden.

2. The riots of Sanya spill out into this intersection of through streets. At the corner on the right is a flophouse serving hundreds of men. Behind the camera is a string of cheap noodle shops, food shops, and one coffee house.

3. Precinct of the great Asakusa Temple, rebuilt after destruction in the fire bomb raids of 1944-45.

4. In the heart of Yoshiwara on the "street of the willows and the flowers." These are the gay houses of yesteryear, now serving a miscellany of functions.