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Hirai, Taro

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Article

## “Double Ageing” in the High-Rise Residential Buildings of Tokyo

Taro Hirai

Graduate School of Regional Studies, Hirosaki University, Japan; of-hirai@hirosaki-u.ac.jp

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### Abstract

This study aims to explore the current “double ageing” (demographic ageing of residents and physical ageing of facilities) in high-rise (over 20 stories by the Japanese Government’s definition) residential buildings in Tokyo, where the rate of ageing has increased most rapidly since the late 1990s, compared to those of other cities and high-rise residential buildings worldwide. First, the trend of demographic ageing in the districts where high-rise residential buildings are concentrated is analysed. The results show that demographic ageing in high-rise residential buildings is faster than in other residential buildings because the age group of the residents is concentrated across two generations: the generation born in 1946–1955 and the generation born in 1966–75. Second, the relationship between demographic and physical ageing was examined through an online survey of 978 residents of high-rise residential buildings conducted in January 2021. A generation gap in values regarding their high-rise residential buildings was clearly identified. Third, the cause and result of the generation concentration and gap were investigated via an interview survey of 26 informants extracted from the online survey. Three main findings emerged: (a) the ageing of the generation born in 1946–1955 has given rise to housing insecurity because of the decline in income, (b) the high rate of singles within the generation born in 1966–1975 may be as a result of housing insecurity after their retirement, and (c) the introduction of social distancing has accelerated the substantial “ageing” of relatively good facilities, but a straightforward generational conflict was not fully deciphered in this article because of lifestyle diversification over generations and organisational culture of management associations.

### Keywords

Covid-19; demographic ageing; double ageing; generation gap; high-rise residential buildings; housing insecurity; old-age life transition; ontological security; urban renewal policy

### Issue

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### 1. Introduction

As in other countries (Turkington et al., 2004; Yeh & Yuen, 2011), the urban renewal policy in Japan, since around 2000, has led to the construction of high-rise residential buildings in metropolitan areas, particularly in central Tokyo (Hirayama, 2017), where more than 8% of all households are located (Ministry of Internal Affairs and Communications, 2015). In the Japanese sociological field, class segregation (van Ham et al., 2020) has been a major issue (Hashimoto & Asakawa, 2020). However, as Easthope (2019) pointed out, in the later years of condominium development, common challenges and opportunities in condominiums include managing demograph-

ically diverse and changing resident and owner profiles and expectations. Yet, a different set of problems can also occur, such as the physical ageing of facilities in high-rise residential buildings and the demographic ageing of their residents.

This “double ageing” is a contemporary event, not a phenomenon set to occur 40 years from now, as indicated by Machimura (2020). As already remarked (Buffel & Phillipson, 2016; Kort, 2021), population ageing and urban change for the development of age-friendly cities, that is, the realisation of “ageing in place” (Somsopon et al., 2022) has become a major issue for public policy around the world. Unlike the discussion on what the city should look like in the future, “double ageing” in

the context of this article focuses on the current and ongoing change in demographic and physical structure in Japanese metropolitan areas where the ageing rate exceeded 20% in 2010, and the subdivision to the general public of high-rise condominiums has prevailed since the end of 1990s due to the urban renewal policy that has dramatically deregulated the restriction of large-scale construction in metropolitan areas in Japan (Sorensen et al., 2009).

In this context, “double ageing” as a concept was presented in Hirai (2017), based on Saito (2016), and focused on the structural dilemma where the management of condominiums by their owners is legislated (Yip & Forrest, 2002). The structural dilemma is that the older the owners or residents get, the greater the range of problems related to the obsolescence of facilities, such as inadequate barrier-free facilities (Amarya et al., 2018), especially because older people are more sensitive to the built environment than other age groups (Ghani et al., 2018). The Japanese legal system, which requires all owners to form a management association and elect its board, means that as owners age and their physical and mental health deteriorate, their ability to serve as board members declines and discussions become inactive, leaving an ever-increasing number of problems unresolved due to the demographic ageing. The term “double ageing” refers to a situation where the resolution is postponed without being addressed and becomes more serious. As a result of these issues not being resolved, the risk of “housing insecurity” (Darab et al., 2017; O’Neil et al., 2020) causing older residents to not continue to live and age in their condominiums needs to be considered. This term is also beginning to be introduced in other countries (Zhang, 2020).

In this study, we focus on high-rise residential buildings, which are considered to have a particularly serious problem of “double ageing” due to the scale and complexity of the structures in the Tokyo metropolitan area where they are concentrated, using three approaches.

First, we confirm the actual state of demographic ageing in metropolitan high-rise residential buildings through the National Survey (2005–2015) to identify the characteristics of demographic ageing of high-rise residential buildings.

Second, we draw issues to be examined from our online survey (942 residents of high-rise buildings and 2,193 residents of other condominiums) in January 2021 to grasp the link between demographic ageing and physical ageing by analysing the generational gap of awareness between high-rise residents on demographic ageing (for example, the “lack of management association board members”) and physical ageing (for example, “anxiety over hygiene in the flats”).

Third, we analyse our interviews in August (26 residents of high-rise residential buildings) to pursue the link between demographic ageing and physical ageing, as it were, to ponder whether demographic ageing does not provoke any issues besides making it difficult to

deal with the problems of physical ageing, whether the working-age residents are irrelevant to those issues or not, and whether the difficulties in dealing with physical ageing is provoked only by demographic ageing or not. In terms of physical ageing, we concurrently pay attention to the impact of the Covid-19 pandemic, which has become more serious since 2020 and has amplified the sensitivities over the physical environment and human relationships within and outside the condominiums (Finlay et al., 2022; Thomas, 2021).

Since the beginning of the Covid-19 pandemic, suburbanisation is progressing in Japan (Fielding & Ishikawa, 2021), and its impact on central Tokyo, where high-rise residential buildings are concentrated, cannot be denied. It is also necessary to consider what impact the increase in unemployment (Blustein et al., 2020) during this period has had on high-rise residents. In addition, housing and living conditions can impact the health of occupants and the spread of Covid-19 (Ismail et al., 2022). Particularly high-rise residential buildings have a higher population density per building area than other types of housing and have more common facilities and services. This is not only in terms of hygiene but also in terms of acoustics and communication facilities due to the penetration of telework.

## 2. Demographic Ageing in High-Rise Residential Buildings

The “person–environment fit” theory within environmental gerontology suggests that, as we get older, we are at higher risk of suffering from increased impairment and, as such, negatively impacted by our surrounding environment (Lawton, 1982). It, therefore, becomes important to explore ageing person–place relations at both the micro and macro scales (Wahl & Gitlin, 2007). Similar arguments are made in the geographies of ageing literature, where there are calls to undertake more multi-scalar inquiries, as well as relational understandings of ageing and place (Skinner et al., 2015). This is important because the immediate neighbourhood becomes a stronger focus of a person’s everyday life as they get older (Glass & Balfour, 2003; Kerr et al., 2012), with Yen et al. (2009) stressing the importance of the neighbourhood environment for the health and vitality of older adults. It is also worth noting that research on activity/life spaces highlights the role of an individual’s immediate built environment on their overall well-being, arguing that as we age, our living spaces effectively shrink (Rosso et al., 2011). This has implications for older residents living in ageing high-rise neighbourhoods as, over time, these environments become the spatial extent of their regular daily activities.

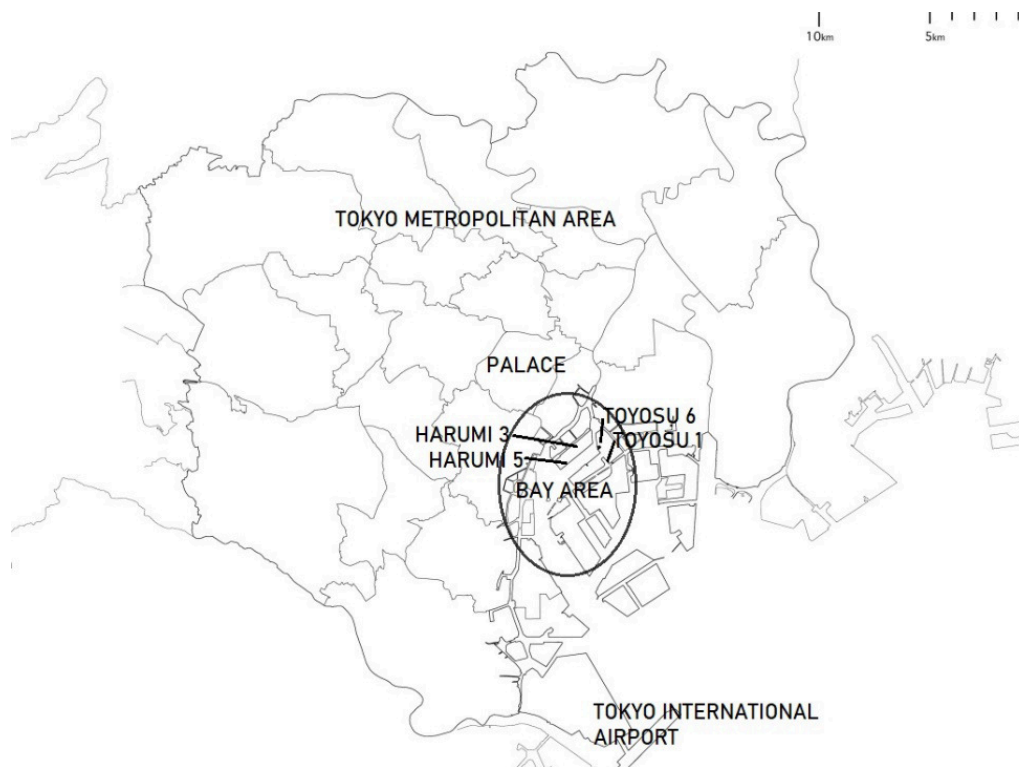
It is rare for ageing research to differentiate between how old various elements of the built environment are and the age of those living in it. For many cities, the structure of the built environment has changed considerably over recent decades as private property-led regeneration

has been utilised as a means to redevelop urban centres and former industrial lands resulting in thousands of new high-rise developments (Butler, 2007; Pow, 2011). This has been facilitated by a shift from a housing development model predominantly focused on suburban and outer periphery areas toward higher-density private sector residential development located in urban centres (Ford, 1994; Lehrer et al., 2010; Nelson, 2009; Scott, 2011). Over the same period, housing affordability across a range of global cities has sharply declined (Davidson & Lees, 2005). Partly framed as a way to improve housing ownership options and reduce the cost of housing, high-rise neighbourhood development has formed a key strategy for global cities to stimulate investment in urban areas (Harris, 2011). Nethercote (2018) goes further and argues that high-rise development has acted as a form of “vertical spatial fix” through a wider process of global capital circulation in support of labour stimulation and international real estate investment. Typically, these processes are understood to result in the development of high-end high-rise developments geared towards middle-class or elite residents (Brueckner & Rosenthal, 2005; Davidson & Lees, 2005; Graham, 2015; Skaburskis, 2010). What is less understood is how these processes “sit” within existing older high-rise neighbourhoods and the residents who live within them in the context of “double ageing.” The case study of Tokyo, Japan, is used to help expand these debates beyond new development processes and ground them within the context of an ageing demographic and a surrounding built environment, as well as frame potential future issues stem-

ming from the recent global rise in private sector-led high-rise development.

Looking at Japan in more detail, the article first establishes the actual situation of demographic ageing in high-rise residential buildings using the National Survey of Japan. Here, we identify sub-regions with a high concentration of super high-rise residential buildings (i.e., those with 20 or more storeys) based on the data prepared by our research team, based on building permit applications to the Tokyo Metropolitan Government.

Results indicated that, in 47 districts, the ratio of high-rise residential buildings is more than 60%. Out of these districts, 31 are in central Tokyo, and 42 are in the five wards of the bay area (Figure 1). The average ageing rate in these districts is only 13.9%. This figure is lower than the metropolitan average of 22.2%. It can therefore be assumed that the ageing of high-rise residential buildings is generally less advanced. However, there are variations by district. In Harumi 5 (2.4%) and Toyosu 6 (3.8%), the ageing rate is below 5%, while in Toyosu 1 (26.7%) and Harumi 3 (25.2%), it is higher than the average of the metropolitan area. The first high-rise buildings in Toyosu 1 and Harumi 3 were completed in 1997 and 2009, respectively. Therefore, it can be assumed that demographic ageing is unique to each high-rise residential building, as opposed to the scheme indicated by Otani (2020), that the ageing of housing complexes progresses over a quarter of a century or more, as the main working-age family members who moved in when construction was completed continue to live and age in their housing complexes. The following section will



**Figure 1.** Tokyo Metropolitan Area and bay area.

take Toyosu 1 and Harumi 3 as examples to illustrate the demographic ageing of high-rise residential buildings.

2.1. Districts Where Occupancy Dates Back to the 1990s: Toyosu 1

Toyosu 1 is located at the northern end of the Toyosu area and is closest to the city centre. It was the site of a ship-building industrial facility for a long time. The area was redeveloped in the 1990s and is now lined with high-rise office buildings. The first high-rise residential building here was completed in 1997 (one building, 125 units), followed by two more in 2000 (two buildings, 498 units in total) and 2008 (two buildings, 691 units in total). All of these were private-sector housing for sale.

Figure 2 shows the population, by age, of five age groups for Toyosu 1 as of 2005, 2010, and 2015 (all according to a national survey). First, it should be noted that the most common age group, as of 2005, was 55–59 years. This age group was born in 1946–1950. This generation is most numerous in Japan. The second most common age group in 2005 was 35–39 (born in 1966–1970). This generation is about five years older than the second most numerous generation (born 1971–1975). In 2010, the generation born in 1946–1950 was gradually increasing, but the largest number of people was aged 30–34 (born in 1976–1980). This indicates that the main occupants of high-rise residential buildings completed in 2008 are younger than those completed around 2000.

Thus, how did the above generations change in 2015 even though no new subdivisions were taking place? First, the generation born in 1946–1950, which gradually increased in 2010 (60–64 years) and settled in 2015 (65–69 years) at a level slightly below that of 2005, is still one of the most common age groups in 2015. It can be said that the generation born in 1946–1950 continues to live in the area. Concurrently, the slight decline is noted not only because of deaths but also because of possible out-migration. Next, the generation born in 1966–1970, which was the second most common in 2005, was still one of the most common age groups in 2015. It can be said that this generation is also “continu-

ing to live.” This generation seems to have reached the same size as the generation born in 1946–1950 when construction was completed in 2008 and can be considered to have continued to live in the area. Finally, the generation born in 1976–1980 decreased by 20% between 2010 and 2015 (35–39 years) and appears to have moved out. The generation born in 1971–1975, five years older than the generation born in 1976–1980, also decreased by 10% over the same period. Thus, it should be noted that in high-rise residential buildings, even in condominiums, the working-age population may not necessarily “continue to live” in the same way as the above-mentioned Otani (2020) revealed in conventional housing complexes.

2.2. Districts Where Occupancy Started in the 2000s or Later: Harumi 3

Harumi 3 had previously been the location of port facilities and public housing complexes, but the redevelopment of the area began in the 2000s. After the completion of public high-rise buildings (267 units) in 2009, two buildings with a total of 1,668 units were built in 2015 as private housing for sale.

Figure 3, like Figure 2, looks at trends by age group in Harumi 3. It does not depict construction completed in 2015. It shows that the public housing completed in 2009 had the largest number of tenants from the group aged 35–39 (born in 1971–1975) in 2010 and those in the age groups five years above and below them each year. At the same time, the generation born in 1946–1950 aged 60–64 was the second most numerous in 2010. Both generations can generally be considered to have continued to live in the area until 2015 (10% of the generation born in 1976–1980 moved out).

The above findings from 2015, for Toyosu 1 (comprising condominiums) and Harumi 3 (comprising public rentals), can be synthesised as follows: First, the generation living in high-rise residential buildings, whether condominiums or rental housing, is divided into two groups. It is difficult to say whether these should be seen as “ages” (in their 30s or around 60 immediately

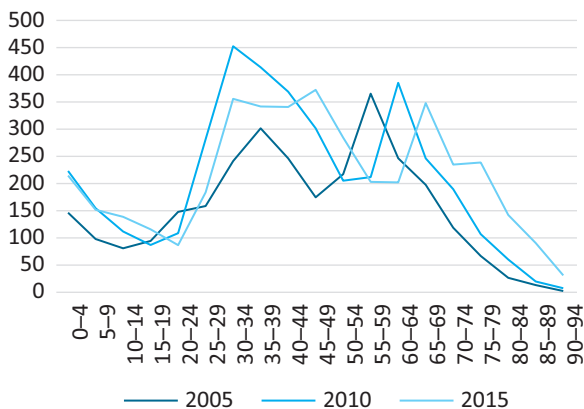


Figure 2. Population by age group in Toyosu 1.

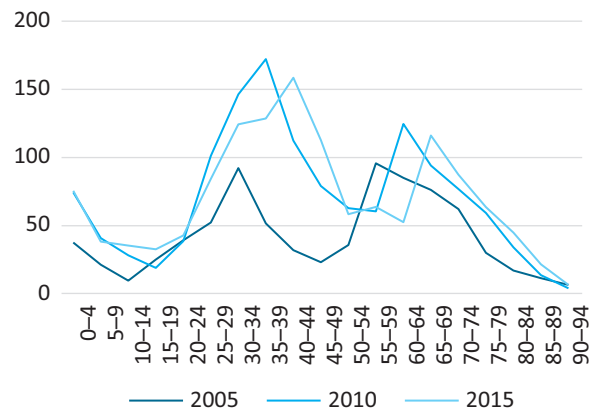


Figure 3. Population by age group in Harumi 3.



after completion of construction) or “generations” (the five age groups above and below the generation born in 1946–1950 and the generation born in 1966–1975).

Even if the ageing rate of residential buildings is not very high, a certain number of older age groups or generations still live there. If the facilities are not adequately prepared for these older people at the time of completion of construction, obsolescence, or physical ageing, a situation where the required functions are not fulfilled in response to changing conditions, is expected to steadily become apparent within 10 to 20 years after construction. Furthermore, the lack of board members of management associations, and the difficulties of discussions due to demographic ageing, will become more complicated. This is because if there are two age or generation groups, differences in interest are likely to become acute in discussions on how to address the obsolescence of facilities and other issues.

### 3. Double Ageing and Impact of the Covid-19 Pandemic

Our online survey (January 2021) was conducted to clarify how the rapid double ageing in high-rise residential buildings is perceived by residents, together with the impact of the Covid-19 pandemic. The survey was designed by the most popular online survey service company in Japan, its population consisting of residents of housing complexes in the Tokyo Metropolitan Area at the time of response. Data collection was terminated when the number of high-rise residents reached 1,000, and incomplete respondents were removed. First, most of the residents were in their 50s and accounted for 29.1% of high-rise condominiums, while residents in their 30s accounted for 28.8% of high-rise rentals. In other words, compared to the whole housing complex, the distribution of high-rise condominiums is skewed towards older groups, while that of high-rise rentals is skewed towards younger groups. Therefore, rather than simply identifying two age groups, it is necessary to closely examine where the age or generational differences are drawn, paying attention to the completion date and type of ownership in the high-rises.

#### 3.1. Impact of the Covid-19 Pandemic

First, there are non-negligible differences in the Covid-19 pandemic impact according to age, gender, family, and employment type. For example, “income has decreased” was selected by respondents in their 20s (25.9%), themselves and their parents (29.6%), living alone (25.5%), self-employed (35.0%), and part-timers (31.5%) significantly more than other age groups, family, and employment types. Gender differences in terms of employment were evident, for example, in “more telework.” In terms of lifestyle, “I spend more time at home” accounted for around 60% of 20–40-year-olds and women, while only around 50% of over 50-year-olds and men. That number exceeded 60% for married couples and “themselves and

their children or parents,” as well as office-based company employees.

How has this impact affected high-rise residential buildings? The proportion of part-time workers is lower in high-rises (9.6% overall, 6.8% in high-rises), and household income is relatively high (two to four million yen overall, eight to 10 million yen in high-rise condominiums, four to six million yen in high-rise rentals). The Covid-19 pandemic impact is, therefore, also likely to be influenced by age and family type more than by employment status in high-rise residential buildings.

This article primarily focuses on age or generational differences. Looking exclusively at condominium residents, 19.4% of residents who were 50 or younger said that their income had decreased, compared with only 9.2% of residents aged 60 or older. No noticeable difference was found in the living aspect “more time spent at home.” On the other hand, while 16.2% of residents in their 20s said they felt their home was smaller, this proportion decreased with age, with only 1.5% of residents aged 60 and over saying the same.

Furthermore, age or generational differences were observed in factors that became more important concerning housing in the wake of the Covid-19 pandemic. While 23.1% of under-50-year-olds cited “advantageous as an asset,” only 14.7% of over-60-year-olds did so. In contrast, 12.8% of under-50-year-olds cited “well managed,” while 22.3% of over-60-year-olds did so. Of these, “advantageousness as an asset” was not seen to vary significantly between age groups when originally selecting a house but was reemphasised by younger people in the wake of the pandemic. In contrast, “good management” was less important among them when originally selecting a house, and it is thought that the age differences in awareness have widened further since the Covid-19 pandemic.

#### 3.2. Differences in Awareness of Management

We analysed responses relating to increased dissatisfaction with management associations and companies following the Covid-19 pandemic, limited to condominium residents. First, fewer respondents in high-rises (63.8%) than the total (73.0%) indicated that there had been “no particular increase.” The most common complaint was “difference in awareness among different generations of owners” (11.9%).

Moreover, the “difference in awareness by generation of ownership” was more than 10 percentage points higher among those in their 20s and 30s (20.8%) than among other age groups. Thus, there were also differences in the awareness gap by age group. In other words, this difference in awareness is more visible among the young but not so clearly among the old.

What specific differences in attitudes can be observed? First, dissatisfaction with the “lack of association board members” was reported by 11.9% of the under-40s, compared to only 4.5% of the over-50s. This

contrast differs from general condominiums, where no age or generation differences can be seen. This phenomenon is thought to be related to the age or generation bifurcation in high-rise residents. In other words, in general, in condominiums where the age or generation of residents is unevenly distributed, the result is that all age groups are equally aware of the situation, whereas, in high-rise residential buildings, where the age or generation is more bifurcated, the dissatisfaction of the working-age residents is more likely to increase.

The second difference in awareness regarding management relates to changes in lifestyle following the Covid-19 pandemic. While only 12.4% of residents aged 50 and younger said they became more concerned about hygiene in their flats, 21.5% of those over-60s said they were more concerned. As mentioned earlier, there was no noticeable difference in “spent more time at home” or in “became more concerned about hygiene in your house.” In other words, despite no age or generational differences in changes of lifestyle, the fact that differences were only found in awareness of “being concerned about hygiene in the flat” suggests that there are differences in the original structure of awareness. This difference in awareness was also a characteristic of high-rise residential buildings.

While synthesising the findings, the online survey also showed that the age or generation of high-rise residents is bifurcated, with complex relationships to ownership structure and completion date. Furthermore, in line with this age or generational bifurcation, there was a stronger awareness of differences in age-related attitudes towards management than in the general condominiums. This difference in awareness had a double effect, with the under-30s being particularly aware of this difference.

There were two focal points for this difference in attitudes: First, the sense that board members of management associations are imposing is more apparent among the working age groups. This may be related to the sense of burden among the working age group and the fact that the working age group does not attach as much importance to management. The second is the growing dissatisfaction with sanitation in condominiums among over-60 residents, even though there are no age or generational differences in terms of lifestyle changes. Hygiene in condominiums can be one of the topics of debate in the management of high-rise residential buildings, with relatively more common facilities and services and a higher population density. Specifically, it is the strengthening of hygiene, including social distancing over common facilities and services, which further leads to restrictions on their use. Although this is different from the initially envisaged response to ageing, it can still be seen as a phenomenon analogous to obsolescence or physical ageing.

Generational or age differences also exist in terms of the importance placed on the quality of management after the pandemic. Due, in part, to these differences

in awareness, it is likely that differences in awareness and claims by an age group or generation on how overall hygiene should be managed are becoming apparent. The following section analyses the results of interviews with select respondents from the online survey, particularly those living in the bay area, where high-rise residential buildings are more densely located, to explore the reality and background of these differences in attitudes towards management.

#### 4. How is Double Ageing Brought About?

A total of 40 sampled persons, 26 of whom are listed in Table 1 below, participated in the online interview for a maximum of 180 minutes on a 60-minute basis. The interviews were semi-structured, where respondents interacted freely while confirming the content of the questionnaire survey. The following first delves into the differences in attitudes between age or generations and their frictions, particularly in terms of hygiene, suggested by the web survey. It then considers how the age or generational bifurcation of the resident population, on which these assumptions are based, was formed and what the future may hold.

##### 4.1. *Manifestation of Age or Generational Differences in Attitudes*

When asked about management discomforts, particularly regarding hygiene, an interviewee replied: “Children playing in the flats in the ‘stay-homes’ policy often damage the walls and sofas. Additionally, there are posters everywhere, which makes the atmosphere bad” (ID8). Although there were only seven interviewees from nuclear families with children, almost all were aware of the presence of families with children. Neither singles nor DINKS interviewees showed any overt statements about avoiding children. However, it was apparent that, subconsciously, they were nervous about the behaviour of children and their reactions to it. It cannot be ruled out that the differences in awareness of hygiene management that emerged in the online survey, as differences between ages or generations, may be because of differences in family types or lifestyles rather than in age or generation.

Complaints arising from these lifestyle differences were shared, including complaints about “sound” due to different waking hours (ID16 and 20). These complaints may also be related to the bifurcation of the type of high-rise residents. The complex combination of age or generation and lifestyle differences exposes common facilities and services to the risk of obsolescence or physical ageing, where they are no longer appropriate for the needs of most residents.

The mechanism for resolving such situations is the management association. The statement of ID1 that he had never paid direct attention to the children was based on the understanding that this should be done through

**Table 1.** List of interviewees.

ID	District	Age	Family Type	Sex	Class (Class of Spouse)
1	Bay Area	70	D	M	Higher Pro. → Pensioner (Housewife)
2	Bay Area	66	D	F	Housewife (Higher Pro. → Pensioner)
3	Bay Area*	66	D S	F	Small Employer → Casual**
4	Bay Area	64	NF	M	Higher Pro.
5	Bay Area → Bay Area' → Bay Area''*	61	S	F	Higher Pro.
6	Bay Area → Bay Area'	61	NF	F	Higher Pro.
7	Bay Area	60	D	M	Higher Pro.
8	Bay Area	55	S D	M	Higher Pro. → Investor
9	Bay Area	51	S	M	Higher Pro.
10	Bay Area	51	S	M	Higher Pro. (income decrease**)
11	Bay Area	50	D	F	Higher Pro. → Casual** (Higher Pro.)
12	Bay Area → Bay Area''	50	S D	M	Higher Pro. (Casual)
13	Bay Area	50	S	F	Higher Pro. (income decrease**)
14	Not Bay Area*	49	NF S	F	Higher Pro.
15	Not Bay Area → Bay Area *	49	S	F	Emergent Service (income decrease**)
16	Not Bay Area	49	S	M	Higher Pro.
17	Bay Area	49	S	M	Higher Pro.
18	Bay Area	49	S D	M	Higher Pro. (Casual)
19	Bay Area	48	S NF	M	Higher Pro.
20	Not Bay Area	47	S	F	Higher Pro.
21	Not Bay Area*	42	S D	M	Higher Pro. (Casual → Unemployed**)
22	Bay Area → Bay Area' → Bay Area'' → Bay Area'''* → Bay Area'''' → Bay Area'''''	44	S D	M	Higher Pro. (Higher Pro.)
23	Bay Area	39	NF NF	F	Higher Pro. (Higher Pro.)
24	Bay Area	34	S	M	Higher Pro.
25	Bay Area	23	NF	M	Intermediate (Parents: Higher Pro.)
26	Bay Area*	23	NF	F	Graduate Student (Parents: Higher Pro.)

Notes: \* Rental; \*\* impact of the Covid-19 pandemic; districts connected by “” are for migration between high-rise neighbourhoods; in the family types, “D” for double income, no kids (DINKS), “S” for single, and “NF” for nuclear family means; in the class, “Higher Pro.” means higher professional and managerial occupation, “Casual” means casual worker, and “Emergent Service” means emergent service sector.

the management association rather than between the parties concerned, and this was generally recognised by the interviewees (ID10 and 16).

However, it was not fully understood how the management associations were solving their problems until they had experienced being a board member (ID4, 9, 13, 16, and 20). Conversely, once they had had the experience, it was also recognised that discussions there did not always proceed smoothly. ID4, for example, felt uncomfortable because, unlike the global bank he worked at, “there is no one to give instructions, so the discussions don’t come together.” ID13, who was also elected as chairperson of the management association, was involved in a legal battle with a 70-something single male resident that had been going on for two terms (four years). The resident suspected that the board members

were taking a back margin from the management company and repeatedly demanded an explanation, leading to a lawsuit. “I am used to this in my company,” ID13 said matter-of-factly, having worked for a famous insurance company since her first job.

This is symbolic of the fact that they say they are “used to it in the company” (ID13), even though it is “different from the company” (ID4). It is understood that a management association is a voluntary, non-professional organisation. However, most residents lack such organisational experience because most high-rise residents, including these interviewees, are upper-class white-collar workers.

The online survey revealed complex differences in attitudes by age or generation about what is important to them in terms of high-rise residential buildings and



what they are dissatisfied with in terms of management. This view of age or generation differences was plausible, given the age or generation bifurcation in high-rise residential buildings. However, when the interviews delved into the actual situation, another explanation became possible. The difference in administrative dissatisfaction may be more a function of lifestyle, related to family type, than age or generation. When these lifestyle differences are combined with age or generational bifurcation, obsolescence or physical ageing is not only limited to the use of common facilities and services but has also become a reality, with the increase in residents “staying home” causing damage to common areas.

Furthermore, the operation of management associations facing these problems of obsolescence seemed to be more a matter of insufficient empirical knowledge in organisational management than of conflicting interests and claims from different age groups or generations. While they are aware that the methods for managing an organisation of a certain size are not suitable for a management association, they have not found any other methods to adopt.

#### 4.2. Old-Age Life Transition

Next, I would like to turn again to demographic ageing. Among the interviewees, a husband and wife (ID1 and ID2) are the oldest, born in 1951–1955. Both are in good health, although they visit the hospital regularly. They have no concerns because the bay area has several major hospitals in proximity and a mall clinic attached to the high-rise residential building itself.

In contrast, ID3 was interesting. In 1993 (39 years old), she and her husband set up a cosmetics import and sales business. In 1996, they moved from a private flat to a high-rise public rental in the bay area due to the location of their business and its advantage as a warehouse and residence. In 2015, her husband passed away, and since then, she moved thrice from a four-bedroom apartment to the most recent 1DK within the same building. In 2020, she closed her business following the Covid-19 pandemic and began working an irregular job (in the packaging industry) due to the burden of rent. Rental residents accounted for 34.6% of the respondents in the online survey, of whom 18.3% were over 60. She now faces the double burden of family and work. Although she has gradually reduced the size of her house to make ends meet and obtained part-time employment, she is worried that she will eventually have to move out due to the high rent.

The public rental housing where she has lived for nearly 30 years is well managed by a public organisation and is supported by the neighbourhood, which she calls a “vertical *nagaya*” (traditional and communal tenement). She not only “hangs around” in the neighbourhood, giving and receiving handouts, but also has a lot to do with her neighbours. In spring, they would go together to cherry blossom viewing parties, and on holi-

days they would bring wine and cheese for lunch. A sense of security and shared lifestyle had been established in the neighbourhood.

So far, for younger people, the difficulties around employment and housing acquisition during the transition process from dependent to independent have been problematised as “life transitions” (Elder & Giele, 2013). However, even in older people like ID3, “old-age life transition” cannot be ignored, due to the inability to transition from dependent to independent, especially in high-rise residential buildings that demand relatively high rent or management fees and maintenance and repair charges.

This is because a certain number of DINKS or singles, like ID3, are also found in their 40s and 50s. Looking at the online survey, the percentage of singles cannot be ignored, with 18.3% of over-60s, 16.9% of 50-year-olds, and 26.8% of 40-year-olds falling into this category. The following section will therefore compare single women in their 40s and 50s to examine how and why they choose to live in high-rises and what their prospects may be.

#### 4.3. Women’s “Ontological Security”

The following is a summary of the life histories of four single women in their 40s and 50s. (A) and (B) in the text are the codes used in the subsequent analysis. As will be analysed in more detail later, the letter (A) in the text indicates what these women were looking for in a high-rise residential building and the letter (B) in the text indicates that these women have confronted anxieties and insecurities that seem to be shaped socially and structurally.

Firstly, ID13 is a 50-year-old woman working for a major non-life insurance company who moved to Tokyo from the countryside in 1988 and found a job “where the pay is good anyway.” She describes herself as part of the “bubble generation.” As “a rural woman” (B), she was working to have “her own house” as soon as possible (A). She had learned to play jazz piano in her 20s and had considered ways to make a living at it but had not yet found “a house of her own” (B) and could not quit the high-paying work. In 2009, she fulfilled her wish and bought her current high-rise condominium (one bedroom). In 2020, she was transferred to a subsidiary company triggered by the Covid-19 pandemic. She was relieved of her managerial position, and she began to wonder if she was happy with her life up until now (B). This interview was an opportunity for her to start thinking about what she could do with jazz once more.

Next is ID14, a 49-year-old woman. She was born in Tokyo but has moved from one place to another. She started working for a major pharmaceutical company in 1993 and has been there ever since. She has given birth and divorced (B) and has lived in a “luxury house” (A) for the sake of her daughter (B). In 2018, when her daughter became independent, she moved to her current public high-rise rental near her workplace (A). However, after

the Covid-19 pandemic, her workplace changed, and it took longer to commute to work (B). This has also led to anxiety: “I’m a single woman, what if I fall ill” (B). She said that she hoped that this study would shed light on such anxieties for single women.

The third is ID15, also a 49-year-old woman who has worked as a beautician since the 1990s but became bedridden (B) after suffering from an incurable illness and stalking. Sudden exposure to Ayurveda led to her recovery, and she became a qualified instructor. In 2009, she became independent and rented a high-rise from a friend. The deciding factor was that there were “no strange people around” (A). In 2020, when her clientele declined due to the Covid-19 pandemic (B), she moved to a public high-rise rental, where the rent burden was lighter (A). She is satisfied that she is prepared to look out for herself, as she could collapse again at any moment.

ID20 is a 47-year-old woman who has worked as a researcher for a major food manufacturer since her first job. She moved to Tokyo from the countryside when for higher education. She has lived there to this day, always thinking that she could return at any time (B). She has lived in company housing (B) since she started working, but she kept thinking that she wanted to live in a “proper structure” (A). On the recommendation of a friend, she bought a high-rise condominium. She works in the suburbs but chose to live in the city centre for more lavish and distracting consumption (B).

The four women are roughly from the same generation, born between 1970 and 1973, which may be better collectively referred to as the “bubble generation.” They experienced university graduate employment between 1985 and around 1994, as ID13 told us.

As mentioned earlier, the letter (A) in the text indicates what these women were looking for in a high-rise residential building. “My own house,” “a luxury house for my daughter,” “a house where there are no strange people around,” “a house with a proper structure.” It varies but would be related to “autonomy” (Darab et al., 2017) or, if contrasted with housing insecurity, “ontological security” (Giddens, 1991), which is felt as the flip side of the insecurity inherent in modern societies.

On the other hand, the letter (B) in the text indicates that these women have confronted anxieties and insecurities that seem to be shaped socially and structurally. For instance, the demand for “my own house” in ID13 is the flip side of her socially insecure self-consciousness as a woman. In fact, she was forced to make an involuntary transfer at the moment she had gained a “home of her own” and was building her career. The demand for a “luxury house for her daughter” in ID14 is also based on a social context in which women are forced to take on the responsibility of raising a child. Just as she, too, was relieved of this responsibility and turned her attention to herself, her workplace was changed. She was made aware of the absence of someone to care for her.

There is also a serious wish for “a home where there are no strange people around” in ID15. She suffers from

stalking and psychogenic physical problems. She is overcoming this on her own, but constant supervision services are essential. Moreover, the Covid-19 pandemic has closed the door to the path that she had just found for herself. At times like these, public rentals have literally become a rare safety net. The “structure” of the “house with a proper structure” in ID20 is suggestive. Her feeling that she can return to her hometown at any time is like being suspended in mid-air. The “structure” she refers to is a building structure that “doesn’t leak sound” and “doesn’t collapse in earthquakes,” as well as a structure that alleviates this feeling of being suspended in mid-air.

The social and structural insecurity of these women has been considered in the Japanese sociological context. Sugita (2018) revealed that the sense of insecurity of Japanese women has been shaped since the Equal Employment Opportunity Act for Men and Women was established in 1986 because that act promotes new graduate women’s entry into the labour market without actual correction of gender disparities of employment conditions. The above-mentioned female interviewees were born in 1971–1975 and have precisely struggled with that act ever since they started working. As Giddens (1991) suggested, the sense of insecurity of these women is considered to evoke in them a sense of “ontological security” compensating for their insecurity.

However, these women, if they continue to accumulate their lives, will face “old-age life transitions,” as in ID3. This is the case even if high-rise residential buildings provide “ontological security” for these women today. This is because, for ID3s in their 40s and 50s, their current housing was indeed a source of “ontological security” (“vertical tenement”). However, because of this, ID3 finds it hard to leave, and it makes her financially insecure. “If they let me work properly, they would see that I am a more useful person. They repel me because of my age,” says ID3 after being rejected from several recruitment interviews. She is not free from the structural problems of the modern Japanese workplace, which mechanically rejects older people based on age. Given the structural nature of inequality that haunts contemporary Japan, it is impossible to say that the fetters that restrict her will disappear in the future for single women from the “bubble generation.”

## 5. Conclusion

First, the trend of demographic ageing in the districts where high-rise residential buildings are concentrated is analysed. The results show that demographic ageing in high-rise residential buildings is faster than in other residential buildings because the age group of the residents is concentrated across two generations: the generation born in 1946–1955 and the generation born in 1966–1975. Unlike the findings of Otani (2020) in the general housing complex, the demographic analysis in this article finds that a certain number of the

generation born in 1946–1955 reside in high-rise residential buildings from the beginning of subdivisions. Therefore, high-rise residential buildings are required to cope with severe ageing problems within 10 years or so of completing construction. This response was the envisaged physical ageing in Saito (2016) as mending facilities for promoting the accessibility of old residents. Accordingly, demographic ageing and physical ageing, as it were, double ageing of high-rise residential buildings in the Tokyo Metropolitan Area is faster than Machimura (2020) assumed. The speed and urgency of this double ageing are unique not only in general housing complexes in Japan but also in high-rise residential buildings in other world cities (Amarya et al., 2018).

Second, the relationship between demographic and physical ageing was examined through an online survey of 978 residents of high-rise residential buildings conducted in January 2021. A generation gap in values regarding their own high-rise residential buildings was clearly identified. In the wake of the Covid-19 pandemic, residents aged 60 and older valued “well-managed” and “hygiene in their flats” more than residents aged 60 or younger. On the other hand, residents aged 50 or younger expressed more discontent over the “lack of association board members” than residents aged 50 and older. Accordingly, the older residents aged 60 and over are more aware of physical ageing including obsolescence by the Covid-19 pandemic, as pointed out by Ghani et al. (2018) and Finlay et al. (2022), but they are not aware that the residents aged 50 or younger feel that they are being forced to deal with that physical ageing. This double awareness gap between generations is considered to be a source of conflict in discussion or decision-making in management associations of high-rise residential buildings.

Third, the cause and result of the generation concentration and gap were investigated via an interview survey of 26 informants extracted from the online survey. Three main findings emerged. First, the ageing of the generation born in 1946–1955 has given rise to housing insecurity because of the decline in income in high-rise residential buildings that demand relatively high rent or management fees and maintenance and repair charges. This article conceptualised this housing insecurity (O’Neil et al., 2020) caused by age-related income decline as “old-age life transitions” based on the symmetrical characteristics of “life transitions” of Elder and Giele (2013) and attracted attention to the previously unnoticed (e.g., Easthope, 2019) aspect of double ageing specific to high-rise residential buildings.

Second, the high rate of singles within the generation born in 1966–1975 may be a result of housing insecurity after their retirement. The high rate of singles, especially among female residents, is considered not to be accidental. Because of social insecurity unique to Japanese women born after 1966, about 20 years later, in 1986, the Equal Employment Opportunity Act for Men and Women was established (Sugita, 2018), they have chosen

the family type of single person as their own lifestyle, and they discovered the compensation for their social insecurity in high-rise residential buildings. This article conceptualised this characteristic function of high-rise residential buildings in Japan as “ontological security” for contemporary Japanese women based on the general remarks on contemporary society of Giddens (1991).

Third, the introduction of social distancing has accelerated the substantial “ageing” of relatively good facilities, but as for the link between demographic ageing and physical ageing, a straightforward age or generational conflict was not fully deciphered in this article, unlike the previous argument of Saito (2016) and Hirai (2017). This is partly because age or generation differences are also intricately related to differences in lifestyle, as the interview of ID1, ID8, ID16, and ID20 suggests. Those interviewees belong to different age groups and generations but share a lifestyle in which they have no children. Moreover, the differences in age or generation awareness are themselves an above-mentioned “double awareness gap” that is revealed by the online survey and suggested by the interview of ID1 and ID8. As it were, it is difficult for the over-60s to be aware of generation gaps and can be seen as the reason why the debate is divided between different generations.

Another possibility is that management associations do not have active discussions based on owners’ conflicts of interest, as the interview of ID4 and ID13 suggests. Without sufficient discussion, it was also apparent that the situation was being handled in a clerical and mechanical manner, like a company dealing with a complainer. It appropriates the experiential knowledge of organised workers, who make up most of the high-rise residents. As ID4 and ID13 are aware, there should be a different handling of the management association, which is based on consultation between volunteer owners on equal footing, as it were, promotion of owners’ participation in discussion on condominium management (Gao, 2018; Webb & Webber, 2017).

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### Conflict of Interests

The author declares no conflict of interests.

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#### About the Author



**Taro Hirai** is a sociologist. He is head of the research group Double Ageing, supported by the Japan Society for the Promotion of Science. At the same time, he is a vice-dean professor at the Graduate School of Regional Studies, Hirosaki University, one of the national universities in Japan. His main research fields include the sociology of conflict and cooperation between generational groups, gender groups, income groups, and other various social groups.