

# A Case Study of Room Sharing Among University Students Under a Project to Utilize Vacant Houses in Yato Area, Yokosuka City

## A Study on the Use of Vacant Houses with Poor Market Liquidity for Welfare Purposes

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### Abstract

This paper aims to find out how a vacant house utilization program works, renovation details of vacant houses, and the reality of how university students share rooms in such properties, by studying students who share rooms in vacant houses and engage in the local community's welfare activities in Yato Area, Yokosuka City. In this project, subsidies for renovation from the national and municipal governments, as well as minimum required interior reform and DIY conducted by the residents, keep the cost for reform and house rent at an affordable level. Also, the students in the two cases examined in this study are majoring in social welfare, which may have enabled them to smoothly take part in community activities. The program is therefore well designed in terms of effectively taking the local university's characteristics into account. On the other hand, the selection of vacant houses depends on surveillance on foot. An effective way to reach vacant house owners, collect information, and manage such properties, is desirable. Furthermore, in order to facilitate interactions among residents and their continued residency, a communal room adjacent to the kitchen must be added as a criterion at selecting a property, and the presence of someone who supervises the room sharing lifestyle to a certain extent may be required.

**Keywords:** Vacant Houses Renovation, Room Sharing, University Students, Ageing Region, Slope Area

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### 1. Introduction

There are many vacant houses in the market that are difficult to circulate because of geographical or architectural conditions. Although in terms of utilizing existing resources, it is ideal to utilize these houses as local assets. However, examples of successful utilization are rare. Thus, there is need for accumulation of survey and research on utilization of vacant houses with low market liquidity due to conditions such as location or architecture.

In this paper, we examined an utilization project

of vacant housing by local government in the Yato district in Yokosuka city. In this project, vacant housing was rented out as shared housing for university students, who then took part in local activities. We viewed this as an example of a welfare oriented utilization of vacant houses with low market liquidity, grasped how the project was run, the renovation details, and the shared living conditions of the students, and then analyzed data gathered.

### 2 The Outline of Survey

#### 2.1 Overview of the Case Study

Geography of Yokosuka City is characterized by scarce flat land, with mountains and hills occupying most of the area. Due to such landscape,

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Table1 Survey Method

Case	Number of residents	Survey items			Plan and common-room furniture placement
		Questionnaire	Hearing		
			Residents	Residents	
1	2	○	○	○	○
2	3	○	○	○(Q)	×
3	3	○	○	○	○

Note ㉞ ? is Questionnaire.



Fig.1 Area Surveyed

mountainous and hilly areas neighboring downtowns are developed as residential areas. Some of such areas, collectively called Yato (valleys) areas, are developed to form a part of downtowns. Presently, there are 49 Yato areas in the city. Upper sides of Yato often consist of narrow streets and steep steps, many of which are dead ends. While the vacant house ratio in general is increasing in Yokosuka, Yato areas suffer a significantly high vacancy ratio, prompting people to raise concerns for the deterioration of living environment, with weakening community bond and increasing difficulties in preventing crimes and disasters\*1.

Since 2012, City of Yokosuka has been working on various projects to tackle the situation and improve living environment in Yato areas. One of such projects is “Residential Support Project by Students of KH University, etc.” The project focuses on utilizing vacant houses and safeguarding daily lives of elderly residents in the upper side of Yato areas. It is a very rare project in Japan, in which students of local universities share vacant houses in the upper side of Yato areas and offer simple supports to their elderly neighbors to improve their living conditions. This paper discusses the utilization cases of renovated vacant houses under the project.

## 2.2 Method of Investigation

An investigation method consists of: 1)Hearing to the house owner about the establishment background of property; 2) Questionnaire for all room share resident; 3) Collection of the top view, layout drawing, and common-room furniture placement of shared housing. Investigation period is from November to December of 2015.

## 3. About the Project

### 3.1 Project Outline

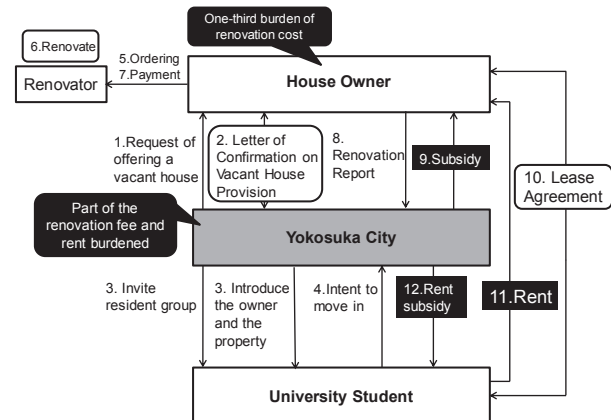


Fig.2 Flow Until Establishment of Room Sharing

At the time of the survey, the residential support project was in its fourth year since its launch, and three houses were being shared under the project. The selection of properties is done through the following steps: 1) field survey and selection of prospective properties by municipal staffs from the division in charge of the project; 2) confirmation of owners with the property register book and through interview with neighborhood residents; 3) delivery of a letter of request for lease to the owner; and 4) consultations with the owner. At selecting prospective properties, the city first circulated fliers soliciting properties in the target areas, but no one made applications or enquiries. In many occasions, information on the register book are found incorrect, as the properties often change hands without any updates on the register. Many houses are left vacant due to the owners' long hospitalization, etc. For these reasons, the selection is made by the municipal officials in charge of the project, who personally walk around the target areas to find potential properties.

Figure 2 shows steps to convert a selected property to a room-sharing house. Upon confirming the owner's intention for lease with “(2) Letter of Confirmation on Vacant House Provision”, the city

Table 2 Owner and Building Overview

		Case1	Case2	Case3	
Owner	Age	70's	70's	60's	
	Address	Next town outside the city	Another prefecture	Neighborhood	
Building	Building Age	50 yrs.	35 yrs.	25 yrs.	
	Original Structure	General house			
	Structure	Wooden detached one storey	Wooden detached one storey	Wooden detached two-story	
	Total floor area	46m <sup>2</sup>	78m <sup>2</sup>	79.49m <sup>2</sup>	
	Location(staircase)	Staircase 250 steps	Staircase 200 steps	Staircase 40 steps	
	Circumstances	New construction by herself	Inheritance from uncle	Transfer from neighboring residents	
	Vacant house period	10 yrs.	7 yrs.	1 yr.	
	Cause of vacant houses	Moving	Moving	Long term hospitalization	
	Management and utilization of the time of vacant houses	Indoor and garden care at half-yearly intervals / Owner's sister temporarily resided	Indoor and garden care once a year	Disposal of household goods etc.	
	Room sharing	Lending period	10 yrs.		
Rent		30,000 yen	60,000 yen	60,000 yen	
Renovation cost		Yokosuka	500 thousand yen	507 thousand yen	720 thousand yen
		State aid	500 thousand yen	507 thousand yen	720 thousand yen
		Owner	503 thousand yen	507 thousand yen	720 thousand yen
Motivation for room sharing diversion		Proposal from Yokosuka city / Because it is a house with memories, there was resistance to disassembly	Proposal from Yokosuka city	Interest in room sharing / Contribution to society to the purpose of regional life defense	
Anxiety about holding room sharing management		I was relieved as it was a contract with the city	Necessity of renovation /Manner of residents /Responsibility as an owner and obligation /The borrower does not stick /Maintenance and management seems to be difficult / Rent fee collection of renovation cost	The borrower does not stick / Rent fee collection of renovation cost/ Change of residents	

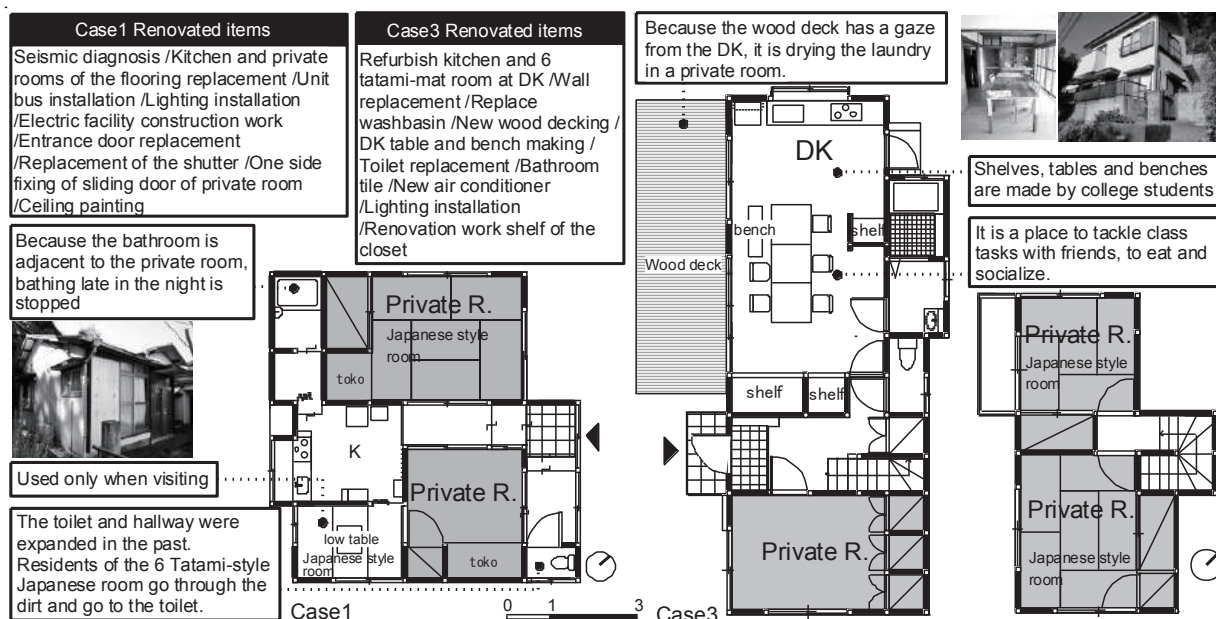


Fig.3 Plans of Cases 1 and 3

and the owner agree on the period of provision in place of a lease agreement. After the conclusion of such agreement with the owner, the city contacts the university counterparts in charge of room-sharing and request them to “(3) Invite resident group” and “(3) Introduce the owner and the property”. A resident group must consist of same-sex members

(except for the case where all group members agree to unisex arrangement) in the same school year. Having a friend group moving in together is the major difference from existing house-sharing projects.

After confirming the “(4) Intent to move in”, the owner “(6) Renovate” the property. Upon receiving

“(8) Renovation Report”, the city grants “(9) maximum amount of subsidy is two-thirds of the Subsidy” to cover the renovation cost. The renovation cost (of which one-third is covered by

Table 3 Room Sharing Life Features

			Case1		Case2			Case3		
Residents			A	B	C	D	E	F	G	H
Period of residence			8 mths.		1 year 7 mths.			2 mths.	7 mths.	4 mths.
Leave plans			Until graduation		Until graduation			January 2016		
Rent			30,000 yen		60,000 yen			60,000 yen		
Subsidies from the city			5,000 yen / person		5,000 yen / person			5,000 yen / person		
Resident burden amount			10,000 yen / person		15,000 yen / person			15,000 yen / person		
Previous residence			Apartment for rent near the university		Rental apartment near the parents' house or university			Parents' house		
Preparation meals	*1	Weekday Morning	Do not eat	Self-cooking	Self-cooking	Come to buy	Self-cooking	Come to buy	Come to buy	Come to buy
		Weekday Night	Self-cooking	Self-cooking	Self-cooking	Self-cooking	Self-cooking	Self-cooking	Come to buy	Rotation system
		Holiday Morning	Do not eat	Self-cooking	Self-cooking	Self-cooking	Self-cooking	Self-cooking	Come to buy	Come to buy
How to eat*2	*1	Holiday Night	Self-cooking	Self-cooking	Self-cooking	Self-cooking	Self-cooking	Eating out	Come to buy	Eating out
		Weekday Morning	Do not eat	Alone in a Private R.	Common R.	Do not eat	Alone in a Common R.	Do not eat	Common R.	Do not eat
		Weekday Night	Alone in a Private R.	Alone in a Private R.	Alone in a Common R.	Common R.	Common R.	Common R.	Common R.	Eat with other
Exchange of residents		Holiday Morning	Do not eat	Alone in a Private R.	Alone in a Common R.	Alone in a Common R.	Alone in a Common R.	Do not eat	Common R.	Do not eat
		Holiday Night	Alone in a Private R.	Alone in a Private R.	Common R.	Common R.	Common R.	Common R.	Common R.	Do not eat
Cleaning Common R.			No rule		Rotation system			No rule		
Take out the garbage			Rotation system		Rotation system			No rule		
Self-management rules and time of creation			Rule: Advance contact at the time of guest staying /Immediate disposal of garbage which smells easily Creation time: Decided while living		Rule:Advance contact at the time of guest staying /Half of expenses of common goods such as living furnishings /Food ingredients purchased individually and cooked /Used area of shoe boxes, refrigerators, cupboards Creation time: Three people decided after moving in			No rule		
Relationship with the community			Local residents' garbage disposal, regional cleaning, resource recovery, etc./Participation in events such as neighborhood association rice cake meeting etc		Garbage disposal and cleaning activities/Participation in community activities			They have not been able to participate much in the cleaning activities/Participation in events of summer festival and neighborhood association		

Notes \*1 Rotation system: Self-cooking with rotation system, \*2 Common R.: Eat with other resident in a Common R.

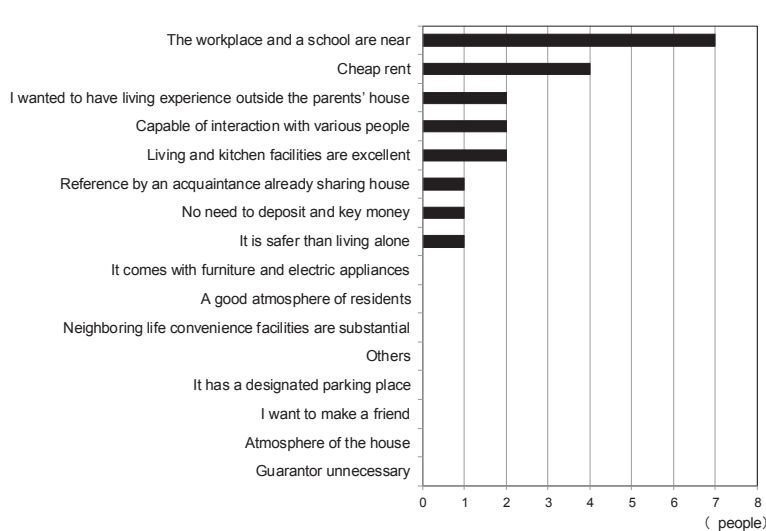
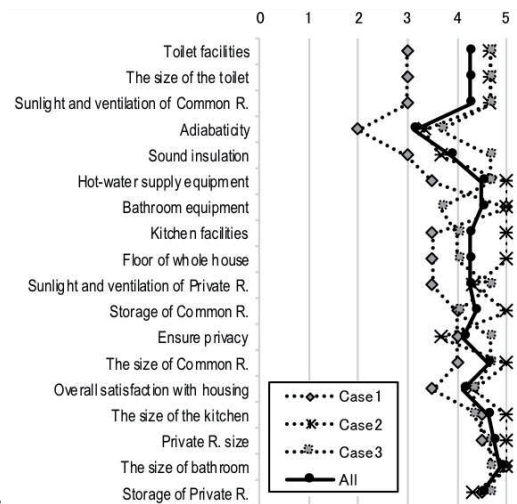


Fig.4 Reason for Occupancy



Note The standard deviations of the case average values are arranged in descending order of items.

Fig.5 Spatial Evaluation

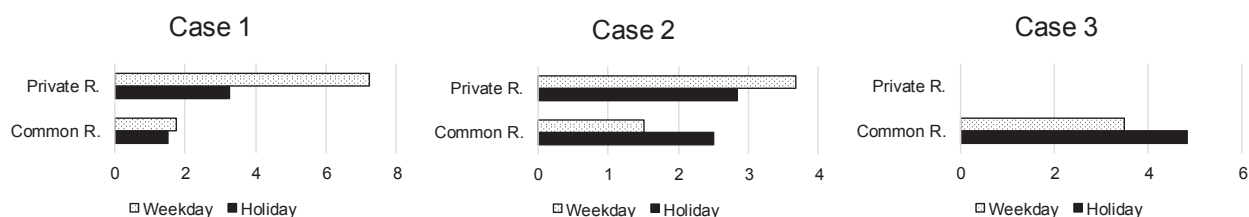


Fig.6 Average of Staying Time in Private Room and Common Room

the city, and another one-third is covered by the national

government; a maximum limit applies). A further reduction of renovation cost is achieved by the students, who renovate the house on DIY basis. Once the property is ready for room-sharing, the owner and residents conclude "(10) Lease Agreement". It is a regular property lease agreement valid until the students' graduation, and the owner conclude such agreement with each of the resident students, while a representative resident is elected at the time of agreement conclusion.

"(11) Rent" is directly paid by the residents to the owner, while the city pays "(12) Rent subsidy" at 5,000 yen per month to each resident on condition that the resident take part in community activities and support elderly neighbors by dumping their trash. Furthermore, the monthly report of community activities is submitted to the city by the representative resident. In the project, the city functions as the intermediary between the owner and residents but is not in charge of the management of room-sharing and the property.

### 3.2 About room sharing property and owner

Table 2 shows the outline of the owners and the room-shared properties. The age group is high in the 60 to 70's. Both of them are built as general houses, and the age is 25 to 50 years. Cases 1 and 2 are wooden buildings, and case 3 is wooden 2 stories with floor space of 46 m<sup>2</sup>, 78 m<sup>2</sup>, 79.49 m<sup>2</sup>. Cases 1 and 2 are located at the upper part of the valley at more than 200 stairs. The vacant house period is 10 years for case 1, 7 years for case 2, and 1 year for case 3. The three-case registration period with the city to lend out as a room share is 10 years, and the monthly rent is 30,000 yen for case 1 and 60,000 yen for cases 2 and 3. Refurbishment parts are common to 3 cases, such as replacing the floor material of the common part and electric equipment construction. The renovation cost is about 150 to 2 million yen, the owner burden amount is about 50 to 70 million yen. Motivation lent for room sharing is different, because it is a house with memories (case 1), social contribution (case 3), proposal from the city (cases 1 and 2), etc. In addition, economic concerns such as securing residents and recovering expenses are common to cases 2 and 3.

### 3.3 Basic Attributes of Residents

Table 3 shows the characteristics of the room share life. The tenants are eight students from a neighboring university in the ages 10 to 20 years old. Because rent assistance from the city is paid 5,000 yen per person, the rent burden amount of the tenant is 10,000 yen for case 1 and 15,000 yen for cases 2 and 3.

Cases 1 and 2 are students of KH University majoring in welfare, Case 3 is a student majoring in architecture at KG university. Therefore, as part of education at Case 3 renovation, many students majoring in architecture other than resident participate in the work as well. In addition, students at KH University majoring in welfare have active involvement with the region.

## 4 Utilization Characteristic

### 4.1 Reason for Occupancy

Figure 4 shows the motivation to move into a room-shared house. The most frequent answers are " The workplace and a school are near " (7/8 people) and then " Cheap rent " (4/8 people), and the location condition such as the proximity to the school and low rent, economic Reasons lined up. Meanwhile, " I wanted to have living experience outside the parents' house ", " Living and kitchen facilities are excellent ", " Capable of interaction with various people " (2/8 people) are listed slightly. Interest in room sharing is a secondary factor as a reason for choice.

### 4.2 Spatial Evaluation

Figure 5 shows the living environment satisfaction rating. Comprehensive satisfaction level for housing is slightly higher at an average value of 3.5 points or more in all three cases. However, the evaluation items are arranged from those with large standard deviation of case average values. Focusing on the variation of the overall average and the average of the case average values, in terms of the size of the shared toilet and the sunny / air-conditioning of facilities and common rooms, hot-water supply facilities, bathroom facilities, kitchen facilities and housing overall floor plan evaluation, Is high but only case 1 has low evaluation. Although the overall evaluation of the heat insulating property and the sound insulation property is low, the value of the case 1 is



particularly low.

As mentioned above, Case 1 is the oldest with 50 years of age, it is pointed out that enhancement of water surrounding facilities etc. is a problem, but the evaluation for the houses of Cases 2 and 3 is high.

### **4.3 About Room Sharing Life**

#### **4.3.1 How to Eat and Staying in Common Room and Private Room**

Focusing on preparations for meals in Table 3, there is a tendency to cook three cases individually. In the meal way, case 1 is eating in a private room, while cases 2 and 3 eat with residents in a common room. FIG. 3 shows a plan view of Case 1. There is no DK in Case 1, and the common room is a 3 tatami-style room adjacent to the kitchen. The meeting is done in a private room, and a folding seat table is placed in the 3 tatami-style room, it is used only when visiting. Therefore, as shown in FIG. 6, residents A and B of Case 1 have a short staying time in the common room of 2 hours or less on both weekday and holiday. On the other hand, cases 2 and 3 are dining tables in DK and it is easy for residents to interact with each other. For this reason, long time to spend in the common room. Thus, the need to ensure a common room of a certain size can be read on the interaction among residents.

#### **4.3.2 Self-management Rules**

Next, pay attention to rules on daily life. As shown in Table 3, there are Self-management rules in Case 1 and Case 2, but Case 3 is not. Here, pay attention to the residence period. Case 2 is the longest one year and seven months, then case 1 is eight months, and two cases will continue to live until graduation. Meanwhile, Case 3 is scheduled to leave in January 2016. Focusing on the staying time in the common room and the private room in FIG. 6, when case 3 is in the room shared housing, meals, conversations, studies, etc. are carried out in the common room, and there is almost no personal time. One factor that did not establish continuing living is that it is not making rules and that public and private separation is not clear.

### **5. Conclusions**

1) Properties for the project are selected through

on-site surveys by the municipal employees in charge, which require some effort and may be prone to information bias.

2) Renovation is limited to partial renovation, such as floor replacement, plumbing, electricity, and lighting fixture installment. Furthermore, due to government subsidy for renovation and DIY by tenants, renovation fee for property owner are kept within 500 to 700 thousand yen, allowing for reasonable rent.

3) Students tend to choose the property more for its closeness to schools and low rent, and thus economical conditions are valued over curiosity about room sharing.

4) Cases 1 and 2 involve students of universities specializing in welfare and perhaps because of this, tenants are participating actively in community activities. Tenants in case 3 are architecture students, and thus many students are participating in the renovation as part of their training. Both projects are worth noting for utilizing the characteristics of the local universities.

5) The amount of socialization between tenants and duration of their residence buried between properties. It seemed that the amount of socialization between tenants depended on whether or not there was a considerably spacious common room, and duration of residence seemed to be influenced by setting or lack of living arrangement rules.

In this project, university students who are the tenants can live close to the university for a reasonable rent, and the accommodating community will benefit from the liveliness brought about through daily life support and socialization opportunities on special occasions such as festivals. Thus, the project is to be evaluated highly as a method for utilizing vacant houses that utilizes the local community's social asset, and contribute highly to the local community. However, in terms of publicization, because vacant houses are selected based on on site surveys, there is need for system of gathering information on or managing the vacant houses, such as ways to notify the owners of the vacant house, and cooperating with a group that knows about the community thoroughly. In addition, in terms of promoting socialization among tenants and endurance of residency, it is necessary to select a property with a considerably spacious

common room close to the kitchen, and rules and an on-site manager for keeping life at shared housing within a certain limit. Lastly, this paper has not analyzed the effect that can be expected from university students supporting community activities in an area with a high rate of seniors, and hope to continue studies on this topic as well.

**Note**

\*1 Rate of vacant houses in Yokosuka for the year 2013 is 14.7%, which is higher than the same rate for the entire nation. The same number for one of the areas in the Yato district was 18.5%