

Research on a rows-of-houses based on façade guideline that updated together -A case study renewal of rows-of-houses in Wajima, Ishikawa-

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Abstract: Lately, a lot of approach cases to form a beautiful townscape are seen aiming at environmental considerations and the charm improvement of the region in various places in Japan and all over the world. In case of Wajima city in Ishikawa prefecture was renewed on a large scale as the Wajima City Renaissance town improvement project. In this case study, the making process of the guideline, the items, and the operation methods were clarified. Through this research, it tried to analyze the action that appeared by reading the guideline and representing the items into the accrual facade design. As results, these were understood: The working group that made the guideline under the council played a big role controlling the façade of the rows-of-houses. There was the examination by the working group; the content of the design drawn in the guideline can be shown to the architects, the constructors and the residents more clearly. By using the operation methods of the guideline, and by being led the main design types of the housing by local architects, the facade design of the rows-of-houses are likely to be consolidated in the certain designs.

Keywords: townscape improvement, façade of the rows-of-houses, guideline, Japan

1. Introduction

For the town marketing, many towns believe that forming beautiful townscapes and improving their own characteristics are very useful methods. They often devote their big budget for the townscape improvement; conserving and restoring the historical townscapes, or improving the shopping and main streets. These would be the important places as the town center. For instance, a beautiful townscape being registered in the world cultural heritage agreement of UNESCO as an inheritance gives a lot of economic effects to the entire town. Modern, unique, new townscapes also enchant a lot of people, and gather a lot of businesses.

This paper is the report of a case study in Wajima that is famous as a historical town of the fishery and traditional lacquer-ware craft industry in Ishikawa Prefecture. The Main Street, 550m in total length, leading from the ex-station to the fish market, was renewed for the widening construction project from 1996 to 2002 (Fig.1). Just after the construction meeting started, the Wajima City Renaissance town improvement council was made up and they started to discuss how they should design the townscape, especially the façade of the-rows-of-houses. When the new housings were going to build with the construction, they decided to form the new townscapes following the traditional designs of Wajima. They aimed to make it very attractive townscape that would enchant a lot of people. Therefore, they compiled the guidelines of the façade of the-rows-of-houses in the agreements of the construction project. There is no legal restraint though the council observes this guideline. Each resident and architect tried to read the guideline and re-present designs of traditional or original in Wajima into their each housing. This research focuses

the use of the guideline, and from the result, it tries to find the factor of the distinctive façade designs of the-rows-of-houses, which are influenced by the guideline.

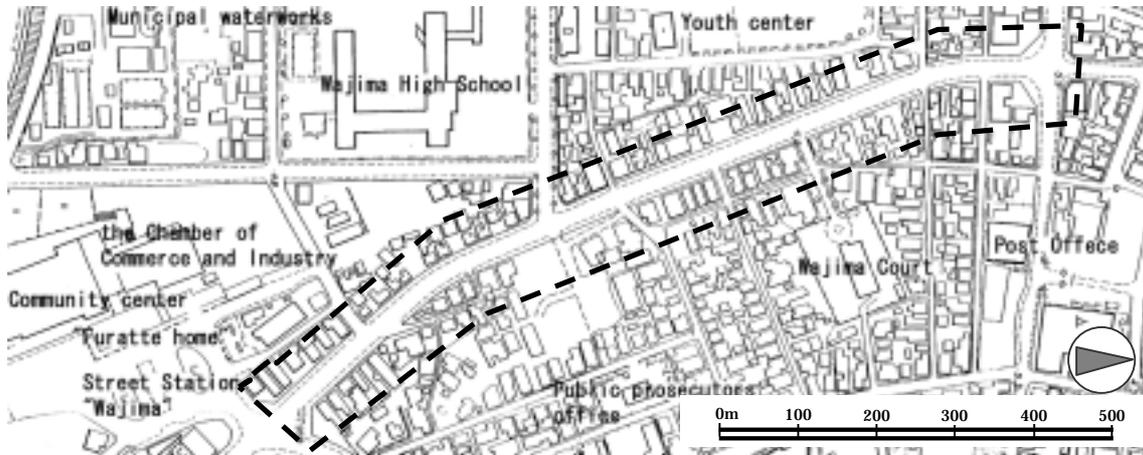


Fig.1 The main street of Wajima; the area of the widening construction.

2. Formulation of the guideline and its operation method

2-1. Formulation of the guideline

“ The working group of rows-of-housing improvement” as the design examination section under the council formulated the guideline. The member of the working group were included 3 architects, a craftsman of lacquer-ware, shop owners, a staff of the Wajima tourist bureau, and staffs of the city planning section of Wajima city and the civil engineer office of Ishikawa prefecture; 24 people in total.

Table 1 is the guideline of Wajima; “Wajimish guideline”. The guidelines were compiled through the study meeting of visitations of advanced cases and architectural designs of local. The guideline had the three levels; Observance (), estimable() and reference (-).

Table 1 Guideline of Wajimal; “Wajimish guideline”¹⁾

"Harmony" of residents	
1m set-backed from road borderline	
"Harmony" of rows-of-housing	
>"Wajimish" style	
>2 or 3 stories house	
>Balanced between next houses	
>Gable or roof facing to the road	
Refers to the traditional design "hamaya"	
Create the modern design for wajima	
Use the materials and colours of Wajima	
Use the craftsmanship and design of Wajima	-
Leave the border line of lot by 25cm.	
Create enriching in front of the building.	-
Road maintenance with Hospitality	-
Store-design that harmonizes with townscape	
Suitable display to townscape	
Store-design with chance of communications	-
Barrier-free	
Suitable designs of signboards, advertisements, and vending machines to the townscape	-

2-2. Operation method of the guidelines

All the residents in the area had concluded the agreement, so they had to follow the guideline. Neither the working group nor the Civil engineer office had the legal restraint in the agreement. However, if the design or blueprint of the housing, especially the façade didn't pass the examination, Ishikawa Prefecture didn't respond to the negotiation on the construction amends. Therefore, the resident could not help following the process. Fig.2 shows the operation method of the guideline.

to are the steps of the methods.

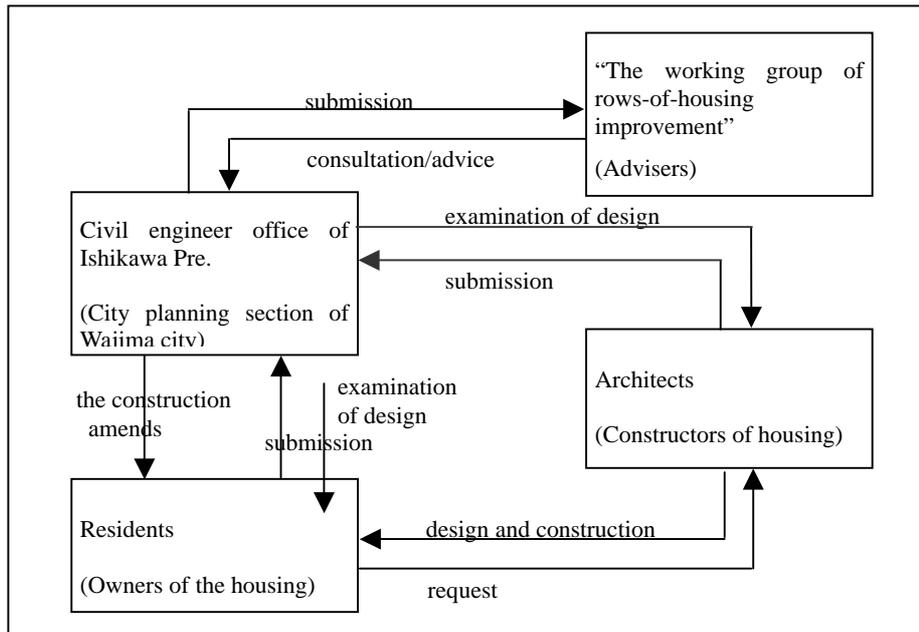


Fig.2 Operation method of the guideline^{1) 2)}

3. The residents' evaluation

3-1. Questionnaire to residents

The questionnaire survey was executed in October 2006. There are 60 housings. The number of distributions is 44 out of 60, except the rented house, the tenant, and uninhabited, by the visit distribution and the visit collection. 38 were collected; the answer rate was 86.4%.

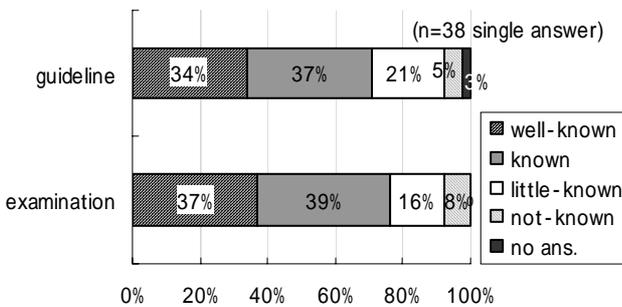


Fig.3 Acknowledgment level of the guideline and examination.

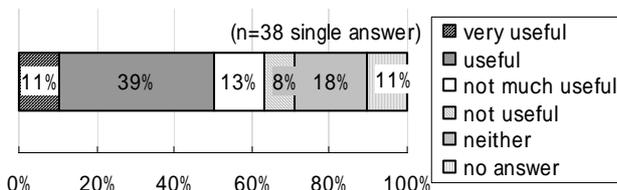


Fig.4 Evaluations of the guideline

According to the operation method of the guideline, the architect or constructor had to visit the Civil Engineer Office for the façade design of housing in order to pass the examination as well as they did have communicate with the residents. The guideline could be useful for having communication with the residents who order. Even if the residents weren't really have enough knowledge of designs, which could follow the guideline in the project.

3-2. Acknowledgment levels of the guideline and examination

For the guideline, it is very important to be known about guideline itself and the examination by the residents who actually put out order to their architects or constructors for façade design. Fig.3 shows the Acknowledgment levels of the guideline and examination. It said that 71% of residents knew the guideline and 76% knew the examination. Because there were the briefing meetings for that project several times, these were quite known by the residents. Fig.4 shows that the evaluations of guideline. 50% of the residents said that the guideline was "very useful" or "useful" to built the new housing.

According to the operation method of the guideline, the

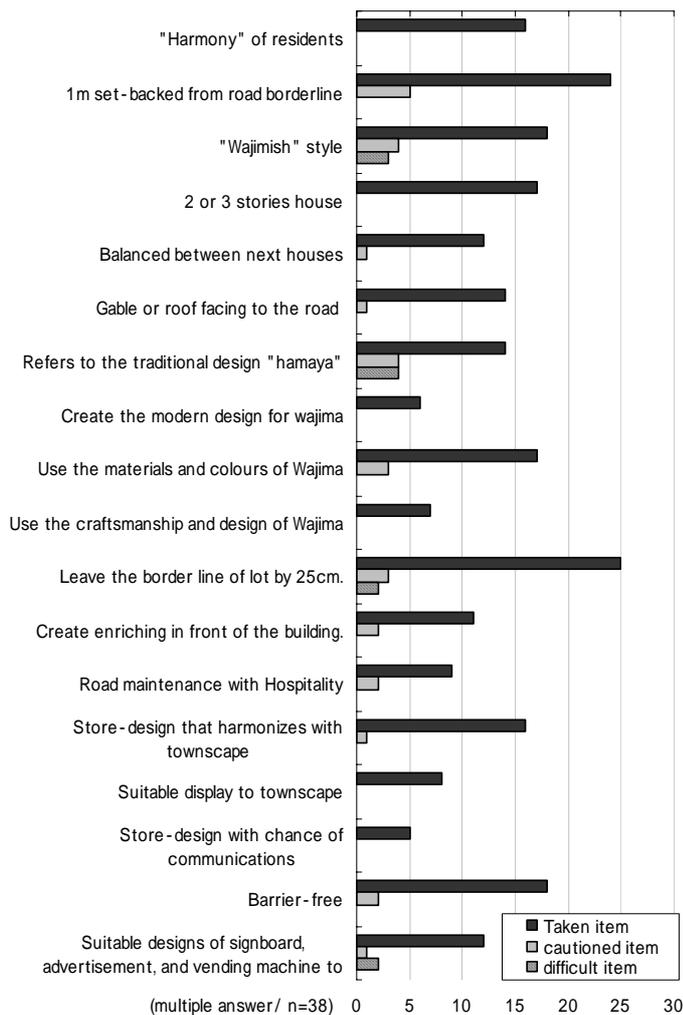


Fig.5 Evaluation of the items for facade design of housing

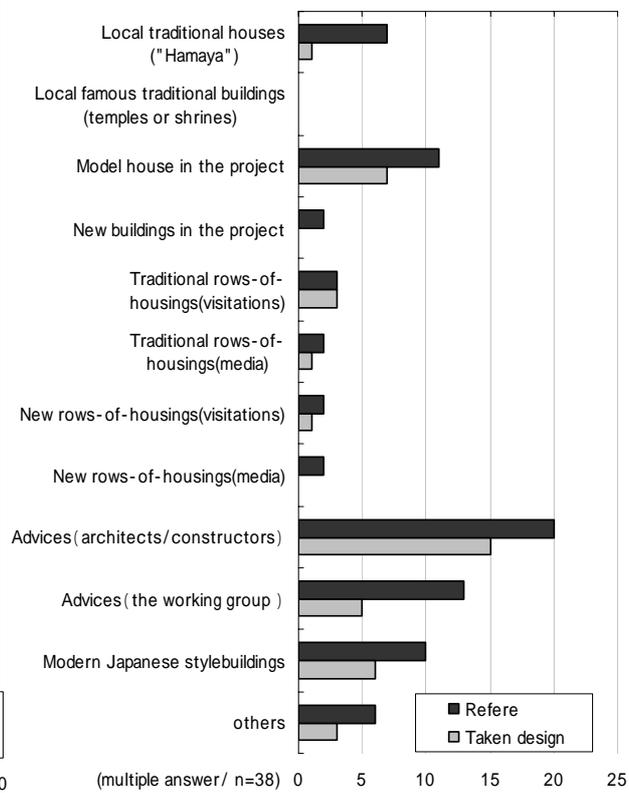


Fig.6 The designs of "Refer" and "taken design"

3-3. Evaluation of the items for facade design of housing

Fig.5 shows which items of guideline that the residents think are taken to the actual façade of housing. "Taken item" is an item that the resident thought that their actual housings satisfied the outline. "The caution item" means that the working group gave the caution to the residents. They asked the residents and architect to make a change into more likely following to the guideline. Some items were felt as "the difficult item" for their design with any reasons.

"Wajimish" style", "Refers to the traditional design "Hamaya"", "Leave the borderline of lot by 25cm" and "Suitable designs of signboard, advertisement, and vending machine to townscape" give the points to both of "the caution item" and "the difficult item". For those reasons, the residents criticized "Wajimish" style" was a kind of image and it was too abstract to judge if it was represented as the real design. So did "Refers to the traditional design "Hamaya"". About the borderline, because of the formation or shape of land, some thought the 25cm were too wide. Since this street is the main shopping street of Wajima, shop owners strongly felt the signboard and advertisement should be clearly visible. The vending machines, which rented from companies and had original own designs, were very difficult to make that design suitable to the townscape.

Following things were understood; 1- the image items like "Wajimish" style" or "Hamaya" style" were difficult to judge whether they took or not. 2- the items with clear numerical value were easy to judge. 3- about the signboard and the vending machine that had the standard design from the companies, the working group would have to tell and

ask to accept the companies to content of the guideline.

3-4. Referred design and taken design

When the resident was requesting the façade design to his architect, both the resident and the architect read the guideline and took designs from something. Fig.6 shows what kinds of factors were referred and taken into the actual façade design as the powerful factors. The most popular factor was the advices from architects and constructors. And the next was the advices from the working group. The model houses that items of guideline were observed in received high evaluation. On the other hand, it was clarified that "Hamaya", the important item in the guideline, was neither very much referred nor taken into the design. However, in Fig.4, the "Hamaya" gave one of the higher items that they took into the façade design. For that the difference, asking some residents, they said that the "Hamaya" was very popular design for people in this area, so the house they built would be something like "Hamaya", because it was the natural design of the housing in the area.

From these results, it can be said that the first step in the operation method of the guidelines, such as the communication between the residents and architects, played a big role (Fig.2). In many projects owning the guideline, they only made it; with they neither make nor build what exactly they intend to re-presented in the guideline. In such a tendency, those model houses constructions are one to characterize this project. In addition, it is evaluated high that the design that the guideline shows is expressed as not only sentences but also shape. Actually, it can be said that the construction of those model houses were useful for a new design formation based on the guideline because the resident sand the architects referred to them and the design had been taken.

4. The building classification and its tendency

4-1. The building classification

Field surveys were held in 2006. As a result of this appearance investigation it was found that 60 buildings (housings, tenant shops, companies and so on), which were renewed at the project, along the streets (Fig.7). It is possible to classify these buildings into certain types: -

- . Road-facing roof with Lattice & Board
The housing whose roof is the road facing. It contains lattice and board of wood on the façade.
The model type is A (Fig.8).
- . Gable roof with Lattice & Board –
The housing whose roof is gable roof. It contains lattice and board of wood on the façade.
The model type is B (Fig.9).
- . Road-facing roof/Gable roof with Either Lattice or Board
The housing whose roof is gable or the road facing Gable roof. It contains lattice or board of wood on the façade.
- . Road-facing roof/Gable roof Neither Lattice nor Board
The housing whose roof is gable or the road-facing roof. It contains neither lattice nor board of wood on the façade.
- . Flat roof WITHOUT Lattice and Board
The housing whose roof is flat roof. It contains neither lattice nor board of wood on the façade.

Table2 shows the building classification. The type such as the gable roof with lattice & board was most popular design in the project, 43.3%. The type , which it also had the lattice & board, was 20.0%. So, 63.3% of housings

had the designs on the façade. The lattice and board were not specified on the guideline. However, the typical “Hamaya” style has both lattice and board, it could be the factor that the most housings of the projects had these designs (Fig.9).

In this project, 13 local architects and constructors designed 48 out of 60 housings³). Local architects, in that was the most popular design, gave 38.3%, then in and , gave same ratio; 18.3%. , the housing without neither lattice and board were only designed by the non-local architects. the flat roof housing which had built before the projects and reformed the façade for the project were designed by the local architects.



Fig.7 the townscape renewed by the project



Fig.8 model house A



Fig.9 model house B



Fig.10 typical “Hamaya”

Table2 The building classification;

The ratio of the local and not-local architects

Type	Road-facing roof With Lattice & Board		Gable roof With Lattice & Board		Road-facing roof/ Gable roof With Either Lattice or Board		Road-facing roof/ Gable roof Neither Lattice nor Board		Flat roof Neither Lattice nor Board	
Total (N=60)	12	20.0%	26	43.3%	15	25.0%	4	6.7%	3	5.0%

	x	x/N	x	x/N	x	x/N	x	x/N	x	x/N
		x/		x/		x/		x/		x/
Designed by local architect (n=48)	11	18.3%	23	38.3%	11	18.3%	0	0.0%	3	5.0%
		91.7%		88.5%		73.3%		0.0%		100.0%
Designed by not-local architect (n=12)	1	1.7%	3	5.0%	4	7.0%	4	7.0%	0	0.0%
		8.3%		11.5%		26.7%		100.0%		0.0%

Difference of reference according to classification (The result of the questionnaire (the respondents=38))

	x	x/								
		x/n								
Advised working group (n=13)	3	25.0%	6	23.1%	2	13.3%	1	25.0%	1	33.3%
		23.1%		46.2%		15.4%		7.7%		7.7%
Advised local architect (n=16)	5	41.7%	6	23.1%	3	20.0%	0	0.0%	2	66.7%
		31.3%		37.5%		18.8%		0.0%		12.5%
not-local architect (n=4)	0	0.0%	1	3.8%	2	13.3%	1	25.0%	0	0.0%
		0.0%		25.0%		50.0%		25.0%		0.0%
Model house (n=11)	3	25.0%	4	15.4%	3	20.0%	1	25.0%	0	0.0%
		27.3%		36.4%		27.3%		9.1%		0.0%

4-2. Difference of reference according to the classification

From the results of the questionnaire, architects, the working group and the model houses were important factors, which influenced the actual facade design. Table 2 also shows the difference of reference according to the classification.

The majority points of “Advised working group” and “Advised by local architects” went to and . In the other hand, minority and took the advice of the working group only in the same ratio of C, and didn't pay attention to the model house very much either. Especially that were designed by the not-local architects, the working group might need to lead them not only the clear items but also the items that needed to understand of the area images such as ““Wajimish" style” and ““Hamaya" style”

5. Conclusion

In the projects, the Wajima City Renaissance town improvement council held the briefing meetings for the residents, so more than 70 % of them knew about the guideline and the examination that held by the working group and civil engineering office. Because there was the examination in the operation, the content of the design drawn in the guideline can be shown to the architects, the constructors and the residents more clearly. (If the design or blueprint of the housing, especially the façade, didn't pass the examination, Ishikawa Prefecture didn't respond to the negotiation on the construction amends.)

About the items of the guideline, the residents evaluated the image items of guideline like ““Wajimish" style” and ““Hamaya" style” were difficult to judge whether they took or not. In the other hand, the items with clear numerical value were easy to judge. The items for the signboard and the vending machine that had the standard design from the companies, it was very difficult to ask the companies by individual, so the working group would ask to accept the companies to content of the guideline.

After reading the guideline, “the advices from architects and constructors”, and “the advices from working group” were the popular factors in the process to taking into the actual facade design. The model houses that items of guideline were observed in received high evaluation.

In the building classification, 60 buildings were classified into four types. The combination of shape of the roof and “Lattice and board” became the axis of the classification. As a result, two main types of the design in the projects were found and there were designed by the local architects. The rest of all were classified into three types that did not come up to the main type. “ Lattice and board” were not on the guideline, however, “the Hamaya style” that evaluated difficult to represent into the actual design has both “Lattice and board”. These designs might represent “the Hamaya style”. Not-local architects designed all of the type 3 buildings that had neither lattice nor board. So, the working group might need to lead them not only the clear items but also the items that needed to understand of the area images such as ““Wajimish" style” and ““Hamaya" style”

Thorough the research, in the Wajima City Renaissance town improvement project, the working group that made the guideline under the council played a big role controlling the façade of the rows-of-houses. By using the operation methods of the guideline, and by being led the main design types of the housing by local architects, the facade design of the rows-of-houses are likely to be consolidated in the certain designs.

Reference

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