

Restoration of Historic Stone Landscape in Downtown Izuhara, Tsushima

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Izuhara, a capital of Tsushima Island located between Pusan and Fukuoka, has an abundant inventory of historic stone walls in downtown since Edo period with some influence in designs from Korea. A field survey was conducted over Izuhara downtown to understand the extent and the cause of demolition of the stone walls in the past seven years. The result shows that motorization and change of land use are the major factors of the demolition, and application of comprehensive regulation for preserving existing stone walls with local citizens' support as well as promotion of skilled artisans are indispensable to maintain the unique stone landscape in Izuhara.

Keywords: Stone walls, historic street-scape, historic preservation, Tsushima, Izuhara

1. Background

Tsushima, an island located between southern Japan and Korea (see map 1), was one of a few gateways of importing Korean and Chinese culture to Japan in Edo period. In total, twelve Choson Tong-Shin-Sa (delegation of Lee dynasty to Japan, Chosen Tsushinshi in Japanese pronunciation) were welcomed by Tsushima-han (the domain of Tsushima) on their way to Edo¹⁾. Izuhara (see photo 1), capital of Tsushima, was the place where the delegation used to land and receive special hospitality as the important guests of the state. Today, hundreds of Japanese and Korean participants, dressed in traditional Korean costumes, parade main streets of Izuhara celebrating this cultural exchange in history every year (see photo 2).

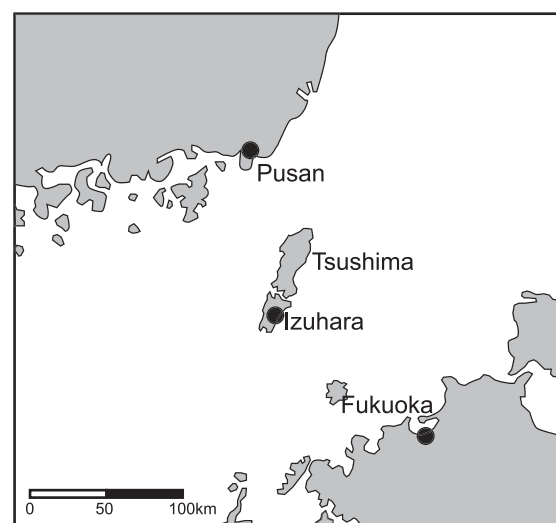
This unusual condition of international exchange as well as geologically craggy feature of the island had created a unique stone culture in Izuhara. Stone walls for samurai houses are the most popular stone structures in Izuhara (see photo 3 and 4). They can be found at previous samurai districts. Many of them have traditional gates with roofs. Stone fire-walls are another elements that can be found in previous merchant's districts (see photo 5). Stone pavements and stairways remain in the ruin of Kanaishi Castle and Hachiman Shrine. Izuhara's unique stone landscape composed by these various structures attracts many tourists from both Japan and Korea.

Izuhara's stone wall assembly style is called Kagami-zumi, which typically use large stones as key stones to maintain the strength of the wall with systematically arranged small stones around. All

of them are local stones, and Kuta stone that has beautiful rusty surface is used particularly for high-level samurai houses.

Interestingly, Kuta-stone-like rusty stones are used for the foundation of Tong-Do-Sa, suggesting cultural influence from Korea to Tsushima (see photo 6). In Izuhara there also are some evidences for the influence such as Korea-Mun Stone left in Kanaishi Castle site.

Most of these stone structures were built in Edo period and have been kept intact until recently. Many of those stone structures, however, are now in danger of demolition due to the ongoing urbanization. Many historic stone walls have given place to garage entrances and parking lots. Some were demolished for widening streets to improve vehicular transportation. So far there is



Map 1. Location of Izuhara, Tsushima

no rule applied to discourage these disordered demolition.

Today, it is urgently required to develop comprehensive and practical strategy to preserve the historic stone landscape in Izuhara not only for historic preservation purpose but also for promoting tourism industry that is the major business of this small island.

2. Purpose of study

In 2002, the authors were asked by Izuhara Town to design Omachi-dori street with a local citizen group. Omachi-dori, a historic street which has been serving as the local artery since Edo period, was scheduled to be widened from six meters in width to sixteen meters to improve vehicular traffic (see photo 7). By then, most of the existing buildings on the west side of the street were already demolished, including some stone structures, to give space to the new street. The major challenge for us was to develop a reasonable design approach of restoring the historic sense of place by utilizing historic vocabulary of public space design which still remained in downtown Izuhara.

This paper's purpose is to indicate possible practical approach of preserving and rehabilitating Izuhara's historic stone landscape by analyzing the current condition of existing stone structures in Izuhara downtown.

3. Previous studies

Harada et al. (1981) have conducted an in-detail field survey in Izuhara to identify several stone assembly systems applied on existing stone walls¹⁾. In 1998 the Preservation Technology Foundation for Cultural Heritage Structure (PTFCHS) prepared a report for Izuhara Town showing the exact location and structural feature of most of the remaining stone structures²⁾. Yoshihara summarized the history of Omachi-dori³⁾ in 2004.

4. Research method

4.1 Field survey

A field survey was conducted in January 2005. The area surveyed is shown in Figure 1. The PTFCHS's map was used as a base map. The surveyors (the authors and four masters students of the authors' laboratory) visited all of the stone walls identified on the PTFCHS's map and examined the existing condition, and if there was any change identified since PTFCHS's 1998



Photo 1. Aerial view of Izuhara



Photo 2. Chosen Tsushinshi Parade
(Two men in the middle are students of authors' lab.)



Photo 3. Existing stone wall with round corner

survey, the change was plotted on the base map and the detail description of the change was recorded. At the same time, all the cases of stone wall restoration, including both partial restoration and new construction, were identified and recorded.

4.2 Hearing

A series of hearings to public officials of both the town level and the prefectural level as well as the local citizens were also conducted to understand if there was any control or agreement in the local community to preserve stone structures.

5. Findings

5.1 Change in the past seven years

Figure 1 shows the result of the field survey. Gray lines show the locations of existing stone walls and black lines show the locations of disappeared stonewalls in the past seven years. In total twenty-two sites were identified where stone walls were lost. Ten sites out of twenty-two are in residential neighborhoods.

As shown in figure 2, the reasons of demolition could be categorized into five groups including redevelopment of the property (site 1, 2, 5, 6, 9, 15, 16, 18, 19), widening the entrance way for car parking (site 3, 10, 11, 12, 17, 21), replacing the wall by concrete or some other materials (site 4, 7, 8, 13, 22), street widening (site 20), and collapse (site 14). Figure 4 illustrates present condition of each site.

The result proved that most of the loss of the stone walls in the past seven years were caused either by redevelopment or motorization.

The losses of stone structures can be found throughout Izu-hara and most of the losses took place on privately owned properties. It is clear that, without some local control applied, the historic stone landscape in Izu-hara will eventually decline and the unique local identity will disappear. However, there have been no local regulation to prohibit demolition of historic stone structures.

Recently Izu-hara started a tentative public support program that help those local land owners restore damaged stone walls by granting 50% of the required cost. It is necessary to carefully trace how this new support program will work. Some local citizens are discussing a possibility of property tax exemption on those lands which are covered by stone walls while there is no precedent in Japan.



Photo 4. Existing stone wall with traditional gate



Photo 5. Existing fire wall



Photo 6. Foundation of Tondo-sa



Photo 7. Omachi-dori before widening

5.2 Restoration

In the survey, a number of restoration works were identified. Photo 8 is a long stone wall at the front gate of Hachiman Shrine. This wall had to be set back by three meters to give space for street widening in 1990's. The relocation required disassembly and reassembly of the entire wall. In this case the restoration work was done very carefully and skillfully by using a fund provided by the Japanese government.

In much smaller scale, there are various qualities of restoration works in Izuhara, and most of them are done by the private sector. Some of them are skillfully restored, but some are covered by mortar, damaging the stone texture.

As shown in figure 3, among the 22 sites identified in the field survey, two cases (site 8 and site 18) are owned by the public sector (Tsushima City). While a careful restoration work was done at site 18, the old stone wall of site 8 was entirely demolished to make a sloped alley.

The rest are owned privately. Three of them have some restoration works applied. In eight cases the entire stone walls were demolished by land owners. While some portion of the stone walls remain, no restoration effort was done in all the other cases.

Site 11 is a good example of high quality restoration by the private sector. The stone wall was partially demolished by the land owner to make a parking entrance. But the edges of the opening were carefully restored voluntarily by the owner so that the wall could maintain its original quality. Meanwhile, in site 3, the edges of the opening were poorly restored by mortar.

At site 17, a garage was built by digging a hole on a stone wall. Usually, in this kind of development, the entire wall is demolished to give way to the parking facility. But at site 17 the scale of demolition was minimized and the top portion of the wall was skillfully preserved. On the other hand, there are many sites where no restoration work is applied at all. At site 4 and site 7, existing stone walls were entirely demolished and replaced by concrete brick walls.

Almost 80% (17 sites) of the identified 22 sites have no restoration including both publicly owned sites and privately owned ones.

According to Mr. Nejime, chief of the town's planning department, delay of the preparation of regulatory rules for historic landscape management and lack of local consensus on preserving stone walls as well as relatively high cost for restoration discourage local land owners from actively participating stone wall restoration.



Photo 8. Stone wall of Hachiman Shrine



Photo 9. Restored stone wall

5.3 Regeneration

Only a small number of new stone walls were constructed in the past decades in Izuhara. An example is the low stone wall with shrubs at the town hall (see photo 9). This wall was built by the town in 1991 as a part of the effort to improve the street landscape to Kanaishi Castle.

In the Omachi-dori project, Izuhara Town purchased two small left-over lots by the street and built pocket parks with stone walls in 2004. These two stone walls are assembled by beautiful Kuta stones which the artisan provided from his stockyard (see photo 10 and 11).

It is clear that, as a whole, the amount of the lost stone walls in the past is much larger than those newly built.

Photo 12 and 13 are examples of new walls which are not made of stones but try to fit the historic stone landscape by applying artificial stone-like texture on the surfaces. It is obvious that these fake walls will fail to contribute rehabilitating lost stone landscape. Since the construction of a new stone wall is much more expensive than, as an example, a concrete brick wall, it is not realistic to expect that local land owners will voluntarily build stone walls for landscape-improvement purpose.

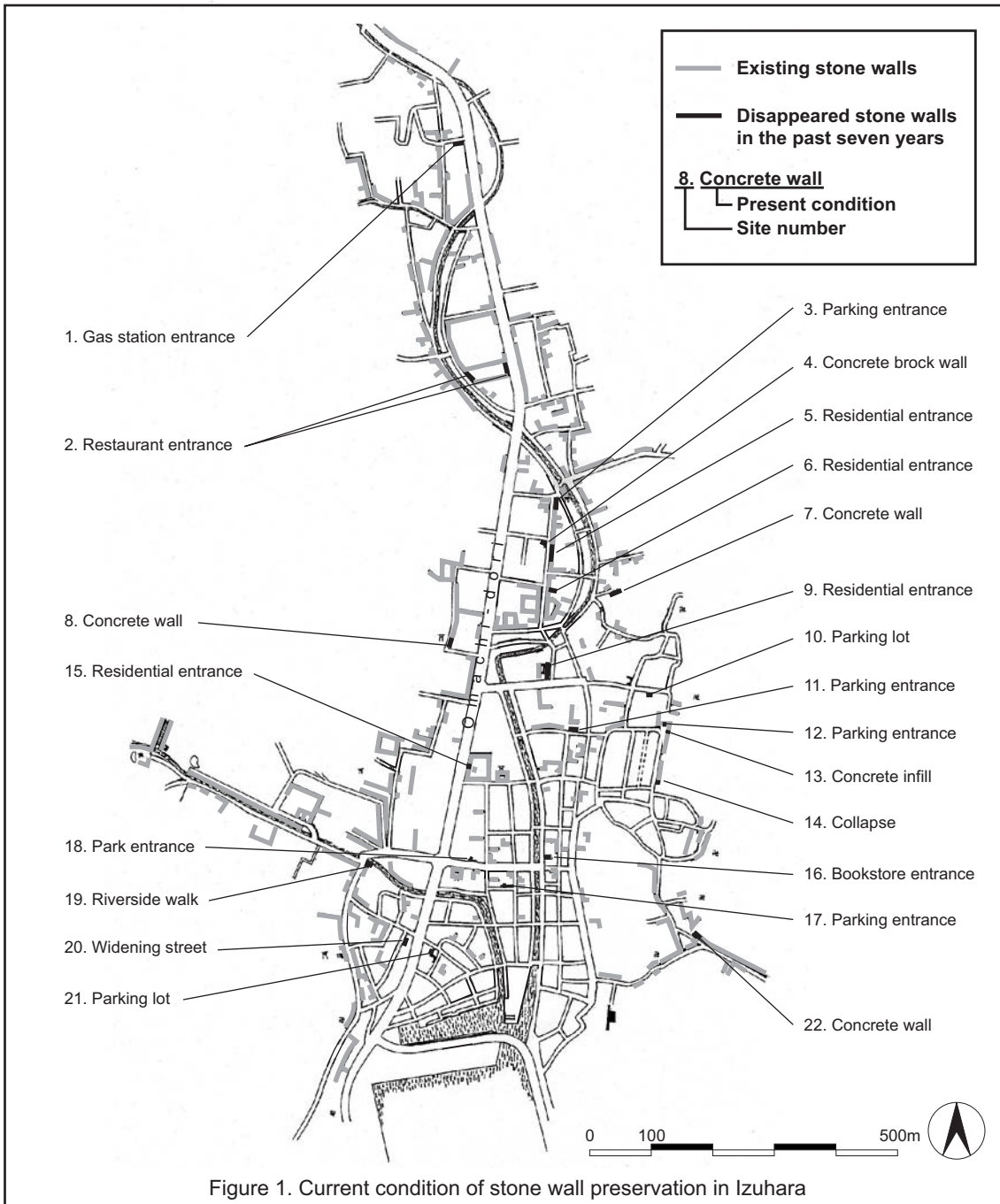


Figure 1. Current condition of stone wall preservation in Izuohara

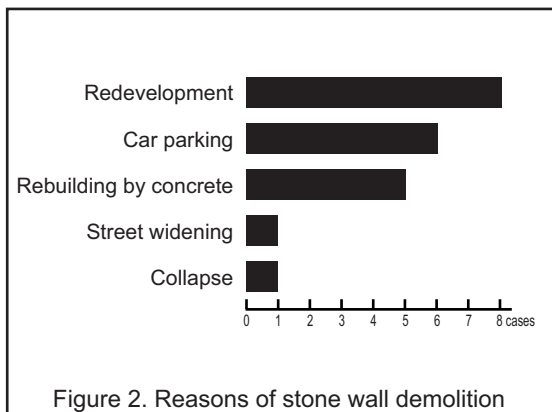


Figure 2. Reasons of stone wall demolition

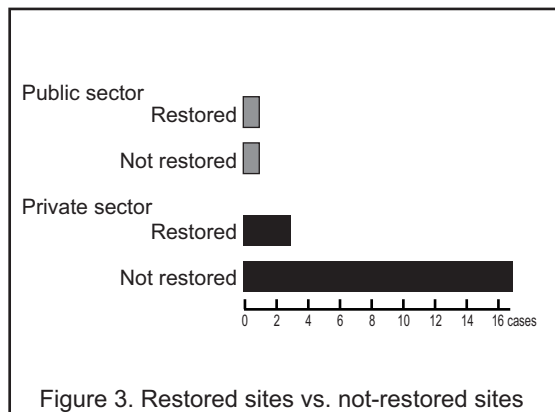


Figure 3. Restored sites vs. not-restored sites



Site 1



Site 2



Site 3



Site 4



Site 5



Site 7



Site 8



Site 9



Site 11



Site 12



Site 13



Site 14



Site 15



Site 16



Site 17



Site 18



Site 19



Site 20



Site 21



Site 22

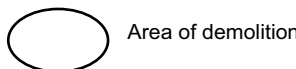


Figure 4. Present condition of previous stone wall sites

Regeneration business of historic stone walls needs to be promoted strongly by the public initiative.

Currently a community-based street improvement program is in the process at Nakamura-dori district, one of the previous samurai districts in Izuhara. Besides upgrading street pavement from asphalt to stones to restore the historic sense of place, some new stone walls are planned to be built along the street. The Tsushima branch of Nagasaki Architect's Association prepared a standard for assembling new stone walls for Nakamura-dori in 2004³⁾. The standard, based on a careful research on the existing stone walls in Izuhara, describes the characteristics of Kagami-zumi and show how to assemble a new wall by local stones with concrete core that are stable enough to fit today's structural regulations.

5.4 Stone and craftsmanship

Based on the PTFCHS's survey the stone walls in Izuhara are mostly made either of Kuta stones or Hakudo stones (white stone made from quartz and some other ingredients). Both of the stones are still mined in several quarries in Tsushima. But there are few stonemasons who can cut stones by hand and use them for assembling stone walls. As is shown in illustration 1, historic Kagami-zumi stone walls are made of stones in irregular shapes and sizes. But, as an example, the stone wall, newly built in a pocket park by Omachi-dori, is made mostly of rectangular stones that emphasize horizontal lines (see photo 14) since it is much easier to assemble walls with rectangular stones than irregular ones for workers.

It is obvious that the new walls look different from historic ones if observed carefully. This includes two issues. First, Izuhara needs to foster skilled craftsmanship to maintain the historic quality of the stone walls. Secondly, Izuhara needs to secure stable supply of assembling stones in traditional shape. So far, no particular action has been taken to promote skilled stonemasons.

In terms of securing stones, Town of Izuhara previously attempted to operate a "stone bank" - a publicly owned open space where citizens can dump stones with no charge when they demolish stone walls in their properties. Those dumped stones were supposed to be reused for assembling new stone walls or repairing damaged ones.

However, since few citizens brought stones into the stone bank site, the program was abandoned later. One of the city officials says that the program did not attract local citizens since there was no incentive, such as carrying cost coverage



Photo 10. Newly built stone wall in a pocket park



Photo 11. Another new stone wall in a pocket park



Photo 12. Fake stone wall of a condominium



Photo 13. Fake stone wall made of concrete

by the town.

Miyake⁵⁾ suggests that the key of successful stone banking program is that the local citizens recognize those stones as precious resource of the town and participate in the program pro-actively. Izuhara needs to enlighten the citizens by utilizing every possible manner to understand and support the stone banking program. It is generally said that people are apt to overlook important things that lie near at hand. For the citizens of Izuhara the stone walls have been there since before they were born, and it is difficult for them to understand the precious value of those stone structures. It could be said that the promotion process of the stone banking program itself will be a good catalyst of gathering citizens' interest about the value of the existing historic stone landscape.

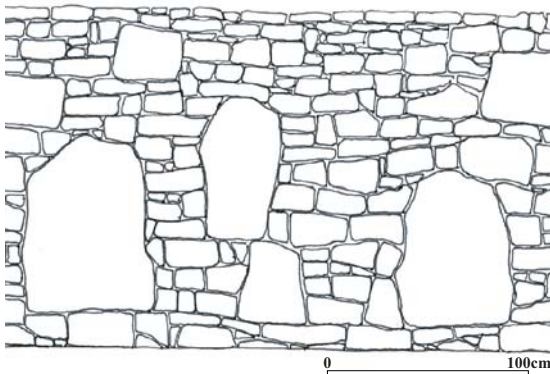


Illustration 1. Typical Kagami-zumi formation



Photo 14. Detail of a new stone wall

6. Conclusion

The major findings of this paper could be summarized as the following:

(a) The historic stone landscape in Izuhara is now in danger due to the motorization and downtown redevelopment. Without urgent application of functional preservation rules, the historic stone landscape of Izuhara will disappear much faster than what local citizens think.

(b) So far, most of the restoration work of the existing stone walls is done by the land owners without any public support. Since the restoration requires large expenses, it is not realistic to expect that the majority of the current stone wall owners will voluntarily keep restoring their walls. Practical public support program is indispensable to maintain the quality of existing stone walls.

(c) Recent construction of two stone walls in pocket parks shows that building new stone walls is another way of enhancing Izuhara's stone landscape. But only a few new walls were built in the past decades. The town should discuss the possibility of budgeting new stone walls.

(d) While Kuta stone is still available in Tsushima, there is few artisans who can assemble a stone wall in the traditional way. Some public support to nurture local stone artisans is necessary to continue restoration works of the historic stone landscape in Izuhara.

(e) A well-thought stone banking program could be a catalyst of enlightening local citizens to start understanding the value of the existing stone landscape in Izuhara.

The next stage of this study should be the designing of a set of preservation rules and programs for Izuhara. The exploration of the historic relationship of stone culture between Korea and Tsushima is another interesting field of study.

Acknowledgement

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