A REUSE OF HISTORIC TIMBER STRUCTURES FOR SUSTAINABILITY
VIA THE EXAMPLE OF ZENKOJI TEMPLE IN JAPAN

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1. INTRODUCTION
Some of historic cities and villages had originally comprised timber structures only. Later some districts and buildings changed not to be timber structures, but some of them still continue to be timber structures. Timber housing stock is one of the conditions that timber structures remain up to the present. Some timber stocks are still used while some has not been used.

Reuse of timber stocks means to use again all parts of districts and buildings that include some parts not to be used at present. Why is whole reuse of districts and buildings required for timber structures? This is why timber stocks of less usage as well as of more usage are a repository of material, skill, labour and memory over the centuries.

2. ZENKOJI TEMPLE AS TIMBER HOUSING STOCK
The area of Zenkoji and its surroundings is one of the most important remains of timber structures in Nagano, the mountain area of central Japan. It comprises not only temples but also houses for priests' families and lodging houses for believers. The house with the accommodations is called ‘Shuku-Bo’. ‘Shuku’ means lodging houses for believers. ‘Bo’ means houses for priests. The thirty-nine units of ‘Shuku-Bo’ exist and the thirty-seven units of ‘Shuku-Bo’ remain to be timber structures.

Zenkoji Temple dated from the ancient and has been much grown up to the present. Many people come from all parts of Japan because the temple has been open to all people without any discrimination of sects, class, and sex. In particular it had been difficult for female in Japan to enter the heart of religious space. Yet in case of Zenkoji Temple women have been allowed to enter into the heart of the temple.

The visitors increased especially after the railroad construction from Tokyo to Nagano. Every ‘Shuku-Bo’ has changed to be high and dense after the construction. Most parts of the buildings still continue to be historic timber.

People with religious interests still come to Zenkoji Temple now but new accommodations for visitors were much added in the city centre just before Nagano
Winter Olympics in 1998. This is why some ‘Shuku-Bo’ are often vacant.

The whole districts and buildings require reusing to be sustainable for historic timber structures. Some sorts of reuse will cause secularization of the religious area. In fact ‘Shuku-Bo’ accepts tourists, serves breakfast, lunch and dinner to them. The long-term stay in Zenkoji is disappearing now. Tourism is one of the secularization in the modern world but in case of Zenkoji most of tourists seem to have religious interests. Meals served in ‘Shuku-Bo’ is called ‘Shojin-Ryori’. ‘Shojin’ means devotion. ‘Ryori’ means a meal. ‘Shojin-Ryori’ is a vegetable diet because Buddhism prohibits eating flesh. So it is religious.

The most important things in the area of Zenkoji is to keep religious. Religious-purposed reuse will be highly recommended to the area in future because it originally began as a religious site and has continued to be religious. The sort of reuse of historic timber structures can be called an authentic reuse of religious space for sustainability.

3. EXAMPLES OF IMPACT ON RELIGIOUS SPACE

There were some examples that showed the serious damages of religious space by secularization.

Firstly the king of Henry the eighth in England changed the religious condition in the second quarter of the sixteenth century. His action is now known as the dissolution of monasteries. The dissolution had major impact on monastic land and buildings all over England at that time. In London most of land and buildings of ex-monasteries were destroyed and changed to be secular use. London was one of the typical medieval cities that were damaged by the dissolution of monasteries.

Secondly the impacts on religious space happened several times in Japan. The major impact was during the fourth quarter of the sixteenth century. It was done by the early shoguns called Nobunaga Oda and Hideyoshi Toyotomi. Both shoguns were military leaders at the initial stage of early modern Japan. Nobunaga Oda accepted Christianity in Japan while he denied the traditional sects of Buddhism and Shinto. In particular he set fire in the upper district of Kyoto in 1573. Most parts of Kyoto were ruled by religious sects before his fire. So he damaged the half part of Kyoto by fire and then ruled the whole of Kyoto directly with less interference by religious sects. Just after his death in 1582 Hideyoshi Toyotomi succeeded his authority. In 1587 Hideyoshi denied Christianity and expelled the Christians from Japan. In 1591 he removed the religious buildings from the centre and confiscated the properties in the centre. The centre of Kyoto had less religious use and was rules by
The next major impact was during the third quarter of the nineteenth century. It was done by the new government of Meiji Ishin Seifu. ‘Meiji’ meant the name of era. ‘Ishin’ meant a sort of revolution. ‘Seifu’ meant the government.

In 1868 the government divided the traditional religious sects into Buddhism and Shinto clearly. Buddhism was denied by the government and much damaged while Shinto was welcomed by it and much developed. In particular Kyoto was one of the typical cities that had major impact on Buddhism. Much of the land and buildings of Buddhism in Kyoto were confiscated by the government and later change to be secular use.

The major impacts by the secular authorities in Japan as well as in England changed the traditional structures of urban space. Traditional urban structures comprised timber structures particularly in Japan. Therefore the timber structures were much damaged in traditional urban area in Japan by the secular authorities.

4. BETWEEN RELIGIOUS AND SECULAR

As the cases in England and in Japan, secular authorities sometimes denied the religious authorities and caused the destruction of religious structures. It caused the destruction of timber structures especially in the area of wooden tradition such as in Japan.

Yet, the secularization did not necessarily damage timber structures. Secularization in general was done not only by secular authorities but also by commoners. Secularization by commoners was sometimes intensive but in most cases it was gradual. Gradual secularization did change but not destroy religious structures. It means that gradual change from the religious to the secular kept urban fabrics continuous. In other words secular elements were added into religious space while religious elements remained in secular space. Such sort of dynamics between the religious and the secular avoids serious damage. It keeps timber structures alive.

5. CONTRAST BETWEEN HORYUJI AND ZENKOJI

There was clear contrast between Horyuji Temple and Zenkoji Temple in terms of secularization. Horyuji in Nara is famous for its oldest timber structures. It has been kept its original forms with less secularization. On the other hand Zenkoji in Nagano has been changed its original forms with some secularization. The difference between Horyuji and Zenkoji mainly depends upon the acceptances of the secular elements.
Every unit of Horyuji was surrounded by the wall. The heart of religious use has been kept its form and size. The heart of Horyuji was called ‘Kon-Do’. ‘Kon’ meant gold as the highest. ‘Do’ meant a main building. ‘Kon-Do’ comprised only a religious heart with no space for believers.

On the other hand Zenkoji was open to its surroundings and heart of religious use has been adding more space in front of it. The heart of Zenkoji was not called ‘Kon-Do’ but ‘Hon-Do’. ‘Hon’ meant central. ‘Do’ meant a main building. ‘Hon-Do’ comprised not only a religious heart but also space for believers from outside. ‘Hon-Do’ of Zenkoji was made after adding its size to accommodate more people from secular side.

In short, the area of Horyuji in Nara was closed to its outside while the area of Zenkoji in Nagano was open to its surroundings. The heart of Horyuji was called ‘Kon-Do’ only with religious cores while the heart of Zenkoji was called ‘Hon-Do’ both with religious cores and with space for believers from outside. The morphology of Zenkoji Temple during the centuries can be said to be one of the good dynamics between the religious and the secular.

6. HISTORIC TIMBER STOCK IN ZENKOJI

Horyuji started in the ancient Nara. Zenkoji also started in the ancient Nagano.

Horyuji had no lodging space for secular people in its area but Zenkoji had accommodations called ‘Shuku-Bo’ for secular people from outside. ‘Shuku-Bo’ still keep its traditional forms and timber structures. There are several historic timber housing stock in the area (fig 1).

The main structure called ‘Hon-Do’ (fig 2) is one of the biggest Buddhism remains in Japan. The religious core space called ‘Nai-Nai-Jin’ (fig 3) is located in the heart of ‘Hon-Do’. ‘Nai’ meant inside and ‘Jin’ meant space for praying. ‘Nai-Nai-Jin’ meant a heart for praying. Dr Ryuji Kuroda pointed out that ‘Nai-Nai-Jin’ in Zenkoji had the same with ‘Kon-Do’ in Horyuji in the ancient Japan.

Very large space called ‘Nai-Jin’ (fig 4) had been added to ‘Nai-Nai-Jin’. Then ‘Ge-Jin’ had been added to the space of ‘Nai-Nai-Jin’ and ‘Nai-Jin’. In result the heart of Zenkoji changed to be ‘Hon-Do’ from the original. Now its ‘Hon-Do’ is one of the biggest ones in Japan. The daily needs to accommodate many believers around the heart caused such sort of full-scale addition.

Zenkoji area comprises four domains. Firstly there is main architecture called ‘Hon-Do’. Secondly there are the two big temples except ‘Hon-Do’. One is Daikanjin (fig 5). Another is Daihongan. Thirdly there are thirty-nine ‘Shuku-Bo’ (fig 6, fig 7)
that are houses for priests with a lot of accommodations for believers. At present thirty-seven ‘Shuku-Bo’ are timber structures. Lastly there is a market place in the area of Zenkoji (fig 8). The small shrine for the market stands in the southeast of the area (fig 9).

Real intimacy between the priests and believers can be seen in the Zenkoji area.

7. CONCLUSION: A SUSTAINABLE REUSE OF TIMBER STOCK AREA

The paper has traced the dynamics of the religious and the secular mainly via the example of Zenkoji Temple in Nagano, Japan. The gradual addition of the secular to the religious has been required to accommodate believers in religious space. The gradual addition has also been made timber structures alive and sustainable.

It is better for timber stock area to be reused with original values that deeply related to religious uses. Most of religious uses related to the timber structures especially in the area of wood. Therefore religious reuses should be highly recommended to sustain timber stock area in future.

On the other hand reuse should have no need to reconstruct timber structures to original forms. Particularly in the case of Zenkoji area the original forms and sizes have been changing gradually. In future, similar to the past, gradual changes should be allowed on the condition that sacred values should be kept in timber stock area by the religious as well as the secular.

A sustainable reuse can be seen in the gradual morphology between the religious and the secular.

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