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Preserving Alleyways to Increase Walkability of Historical Japanese Cities

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Abstract

Old cities in Japan are generally planned according to grid pattern and centralised spaces like the public square are not common (Jinnai, 1995; Kurokawa, 1983) Social activities would normally take place in micro-scale spaces like the alleyways, or in privately owned open spaces where people were protected from wheeled traffic. As alleyways ensured pedestrian safety and provided people with walk-able environment allowing people to socialise, they contributed in building tight-knit communities around them over time. However, many roads have been widened over the past six decades. They either lack or have very narrow sidewalks. Without a public square, Japanese cities have far less walk-able areas. In some of the historical cities, the changes have been gradual and there are some alleyways that still remain. This paper uses the case study of old historical centre of Kyoto to introduce the ways in which the remaining alleyways can be used to increase walk-ability of historical Japanese cities while maintaining the historical townscape and original spatial configurations.

Peer-review under responsibility of IEREK, International experts for Research Enrichment and Knowledge Exchange

Keywords: alleyways; walk-able neighbourhoods; pedestrian safety; preservation of historical urban space

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1. Introduction

Walkability has become one of the important concepts for sustainable urban development in the past few decades. A walkable neighbourhood is known to be beneficial to health, environment and economy. An increased human activities outdoors also increase the chance of encounters among people in the neighbourhood. Even repeated experience of bumping into people, or greeting each other on the street will help people feel connected to other people and the places. In this sense, walkability can be seen as an important aspect for building a better community. Jane Jacobs (1961) in her influential work, *The Death and Life of Great American Cities* suggested to rethink the single use, car oriented modernist way of planning (Jacobs, 1961). Groups such as New Urbanists supported this idea and promoted mixed-use and walkable neighbourhood (Christopher B. Leinberger, 2009). Scholars such as Jan Gehl have done multiple study on street life and emphasized the importance of human scale and social activities between buildings (Gehl and Gemzøe, 2004; Gehl and Rogers, 2010; Jan Gehl, 2011).

Mixed use and walkable streets are inherent features of old cities, including those in Japan, many parts of which were lost during the modern development. In historical city centres like that of Kyoto, the changes have been gradual compared to other large cities, but many developments have taken place along wider streets and walkable areas in Kyoto are now fragmented.

2. Structure of Historical Japanese Cities and Problems Related to Pedestrian Safety

Traditional Japanese cities are structured according to a strict grid system. The old city plans typically do not include public squares or large open spaces (Jinnai, 1995). The size of each grid is relatively large, for example, in the case of Kyoto the grid was approximately 120 x 120m. This was too large for individual buildings. Therefore, smaller streets and alleyways developed rather irregularly to provide access to the inner plots. It can be said that public open spaces in the traditional Japanese neighbourhoods are structured only with streets. Therefore, the separation between human and wheeled traffic becomes fundamental. However, since the 1950s, the spread of cars have become more and more evident throughout Japan. Wider streets became populated with cars. This was further accelerated by Japan's economic growth from 1960 to 1970s, where wider roads were much needed for transports of goods and people. As a result, the flow of pedestrians were often de-prioritised in the modern street design in Japan.

According to the Building Standards Act amended in 1950, minimum width of a road is determined as 4 metres (I will call this the 4-metre rule), which is the width that two cars can barely pass by each other. When a road is built fulfilling the minimum requirement, there is not enough space left for the pedestrians. As a result, many roads in urban areas of Japan are built with little to no pedestrian facilities. Some have very narrow sidewalks, and others have only white lines separating the pedestrian space from the rest of the road. According to several sources of municipalities, they consider it important to keep the width of the road wide enough so that emergency vehicles can go through in case of disaster (Narita City, 2010; The City of Suzuka, 2014). This is reasonable as when the Great Hanshin Awaji earthquake happened in 1995, it was reported that ambulances and fire engines could not go through the densely built areas with narrow streets to rescue people (City of Kobe, 2011). Furthermore, there is also a concern that if buildings are built too close to each other there is higher risk of spread of fire.