

# Space composition and alteration of alun-alun in the current Java

\*Takako Kohori<sup>1</sup>, Katsunori Furuya<sup>1</sup>, arifin hadi<sup>2</sup>

1. Graduate school of Horticulture, Chiba University, 2. Faculty of Agriculture, Bogor Agricultural University

## 1. Introduction

As globalization progresses, urban landscapes are spreading uniformly in the world. In recent years, unique features of cities, such as culture and history, enhance tourism and residents' sense of belonging. In this study, we focus on *alun-alun*, the iconic open spaces of Indonesia which have transformed the urban landscape through economic development. However, in recent years, under the initiative of the Indonesian government, there has been a movement to alter the spatial composition of *alun-alun* [A1]. This research aims to clarify the space composition and alteration of alun-alun.

## 2. Method

*Alun-alun* from colonial times to the present were identified, to clarify the current space composition. The following maps were studied: 1) maps from the Dutch and Japanese colonial eras owned by Leiden University, 2) a 1995 map published by Bakosurtanal, Indonesia, and 3) the present-day map by Google Earth Pro. In addition, we picked out *alun-alun* whose on-site space composition was changed based on satellite photographs and revealed the changed contents by literature survey. Google Earth Pro was used to identify changes.

## 3. Result

We divided the spatial composition inside the *alun-alun* sites into two types based on two points: the presence of open spaces and the number of Ficus Benjamina. We further assigned five types of sites: open space in the center of the site (Type 1), 2 Ficus Benjamina planted in the center of the site (Type 2), 1 Ficus Benjamina planted in the center of the site (Type 3), open space and split into other areas (Type 4), and others that do not have spread of open areas in the center of the site (Type 5). Types 1 to 4 have spatial extensions on the premises. In an example of Type 5, there was a monument and a fountain installed, and streets stretched across the premises and some flowers and trees were planted on the entire site.

The survey revealed that Type 1 occurred most frequently in 39 locations (43.3%), Type 5 had 18 locations (20%), Type 4 had 17 locations (18.9%), Type 2 had 10 (11.1%), and Type 3 had 6 (6.7%). In West Java and Banten provinces, Type 1 was the most common. In Central Java Province, Type 1 was the most common followed by Type 2 and Type 3 with Ficus Benjamina. In Yogyakarta special province, all were Type 2. In East Java province, Type 4 was the most common.

Our survey showed that according to the changes in space compositions, in West Java province, 7 locations have changed to Type 5, and 3 locations have changed to Type 1. In addition, in Central Java province, 3 locations have changed to Type 1, and 2 locations have changed to Type 3. The changes were intended for space improvement. In East Java Province, 2 locations have changed to Type 4, and 1 location has changed to Type 5. In the Banten provinces and Yogyakarta special province, there was no change.

#### 4. Conclusion

In this study, we extracted 90 *alun-aluns* in 87 cities in the Java region extant from the colonial map to the present. The spatial forms of *alun-aluns* revealed that they have a regional tendency. The spatial compositions have changed in West Java, Central Java, and East Java in the past 15 years. In West Java province, there was the move to create a new design, and in Central Java State and East Java State, modifications were made for space improvement.

Keywords: Java (Indonesia), alun-alun, space structure, alteration