Environmental Repercussions
The Changing Culture of Asian Cities: Kyoto and Yogyakarta

In 1943, a Finnish architect and planner named Elie Saarinen wrote in his book, *The City*: "Show me your city, and I will tell you what the cultural aims of its population are." Over 50 years have passed since then. We have witnessed the independence of colonies in the Third World and the fall of the communist system. We have enjoyed our lives in an affluent society. Mass production and consumption under the free market system, however, have depleted precious natural resources, and we now face a grave environmental dilemma that threatens our survival. In the following pages, I would like to discuss culture and environment in two old Asian cities, Japan's Kyoto and Indonesia's Yogyakarta.

**Kyoto: Urban Threats**

Kyoto has a 1,200 year history and a unique environmental structure. All but the southern part of the city are surrounded by mountain greenery, and two rivers run through the city. Since the establishment of old Kyoto (called Heiankyo) in 794, a grid pattern of roads has clearly defined the city's structure. A considerable number of historic buildings, detached palaces, shrines, temples, gardens, and old structures are located inside and outside of Kyoto, particularly around the foot of the mountains and along the rivers. Traditional town houses are clustered in the inner-city.

Today, however, rapid demolition of age-old heritages and the new appearance of middle and high-rise buildings threatens Kyoto's unique atmosphere as a historic city. While there once existed cozy and pleasant residential quarters with two-story wooden town houses and small lanes allowing people to enjoy their community, the automobile is now invading these traditional districts and destroying the atmosphere. In his book, *The Image of the City*, Kevin Lynch identified five elements of the urban environment: path, edge, district, node, and landmark. In Kyoto, many of these elements exist, fascinating visitors from both Japan and abroad. The question, therefore, is how to cope with this trend and revitalize Kyoto's traditional uniqueness.

The need to revitalize historic and cultural heritages in relation to the natural environment is the key issue of urban planning in Kyoto. The main concept in this paper is human-scale planning at city and district levels, in harmony and co-existence with the surrounding natural environment. Recently, we have recognized that the coming generation will be greatly influenced by global environmental issues. If we continue our existing way of life, we cannot survive in...
the long run. At the same time, we increasingly notice the value of tradition, history, and cultural heritage. The issue is how to balance development and conservation. While the term "sustainable development," introduced by the Brundtland Commission in 1987 to solve this dilemma, is good, it is difficult to integrate into actual human activities.

Today, Kyoto has a population of 1.45 million, and its administrative area covers 610 square kilometers. While there are several important cultural sites in the inner-city areas, there are very few parks or open spaces except within the compounds of historic buildings. In fact, the ratio of urban park to total urban areas is only 3%, the lowest of all metropolitan cities in Japan. The Kyoto municipal government is now trying to promote conservation and development of green spaces in the inner-city areas through its unique landscape preservation policies and regulations. The strict building and development controls in the city's designated areas requires, of course, the positive collaboration and support of the residents of Kyoto.

Kyoto: Communal Solutions

In December 1997, the "Third Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change," was held in Kyoto. Kyoto's concerned citizens, academics, and businesses worked together with the Kyoto municipal government to formulate the city's policies against global warming. The plan is aimed at sustainable and societal co-existence with the surrounding environment. The Kyoto "Agenda 21" encourages: (1) the creation of new life-styles and business activities appropriate to Kyoto; (2) the recycling of energy and materials for the purpose of environmental protection; (3) the creation of environmentally-friendly transportation and distribution systems.

Based on these three ideas, five major goals were presented and thirty-two action guidelines were formulated concerning a new ecologically focused industrial system, an environment-oriented tourist industry, and an environmentally friendly transportation system. The action guidelines concerning green spaces and transportation include the following items: preservation and addition of green spaces and forests; creation of an appealing ecology by increasing natural and cultural spots; provision of environment-oriented tourist infrastructure; encouragement of bicycles as an alternative means of transportation; restrictions on the use of vehicles; and the promotion of environmentally-friendly vehicles.

Partnerships among citizens, businesses, and administrations will play a key role in how the region copes with such social change. In the central area of Kyoto, community activities based upon machi (town) or gakku (school district) have historically been active, offering various services such as public hygiene, security, disaster prevention, and mutual assistance. Although these services have now been transferred to the public and private sectors, some activities are still carried out by residential blocks or local autonomy associations, which function as a unit through which inhabitants can request their local government to improve the community environment. The local autonomy associations also function as social welfare and recreation organizations, delivering meals supplied by the Social Welfare Association to old people, assisting children's groups in musical activities, and promoting athletic groups in the community. The promotion of such area-based community development was due to the existence of a substantial number of
people in the community. Today, however, the remarkable decrease in the number of habitants in the inner-city, especially among the younger generation, may decrease the strength of these community efforts to make Kyoto more environmentally friendly.

**Yogyakarta: Modern Pressure**

Another city rich in cultural heritage is Yogyakarta, a palace city built in 1755. Its sites include the magnificent Buddhist temple, Borobudur, built in the latter half of the ninth century, and the Hindu temple, Prambanan, built in the tenth century. The expansion of European powers reached Indonesia in the early fifteenth century, and the Dutch colonized the Indonesian archipelago during the sixteenth century. In 1945, Indonesia achieved its independence and Yogyakarta was made the nation’s capital. Having thus been influenced by myriad religions and races, Indonesia today has multi-racial and multi-cultural characteristics. With a population of 450,000, Yogyakarta is a good example of this mix, and we can clearly identify the areas occupied by the Javanese, Dutch, Chinese, and other foreigners during the last 300 years.

The spatial structure of Yogyakarta is often delineated on two conditions: the holy mountain called “Merapi” to the north, and the Indian Ocean to the south. The old Yogyakarta, the capital city of Sultan Hamengku Buwono, was constructed on this north-south axis, now called Malioboro Street. The old capital had a unique central pattern comprised of an alun-alun (square) in the center, a kraton (palace) to the south, a mesjid (mosque) to the west, and a pasar (market) to the north. Kraton represents political power, Pasar manages commercial activities, and the mosque is a symbol of religious superiority. This spatial structure originated from Hindu cosmology and was later assimilated by the Javanese. The Dutch interfered with this arrangement as they constructed the Dutch fortress and the Dutch governor general’s mansions to the north, adjacent to Kraton, to facilitate inspection and supervision. Grandiose stone buildings for the central bank and the post office were also constructed along the major streets, separating the palace and the fortress.

In Yogyakarta, there are various kinds of historic and modern buildings and monuments which are different from those in Kyoto. The most important ones are the Sultan’s Palace and Taman Sari (Water Palace). Older sites are located in Malioboro, Kota Gede, Pakualaman, and Kota Baru Districts. More modern structures such as the new campuses of Gadjah Mada University and other universities are mainly located in the northern part of the city.

The Malioboro district derives its significance from the Kraton-Tugu axis (Malioboro Street), constructed in 1759, an axis with not only physical but also spiritual value. This district is the administrative and commercial core of Yogyakarta, where circulation, distribution, functions of goods, services, and capital are concentrated. These various activities are attracting more and more people and businesses. Malioboro is also a district containing unique kampongs (communities) and historic buildings with important cultural value, such as the market and old shops. As in Kyoto, the big challenge is the coordination of the economic development of the local economy on one hand, and cultural conservation on the other.

A tourist attraction, Malioboro is also one of the most densely populated areas with many shoppers, small businesses, and street vendors who sell cheap
food and goods to students, laborers, and visitors. Therefore, this area has chronic problems: (1) pressure to change the land use and demolition of traditional buildings without regard for their historical value; (2) increase in street vendors who sell food and souvenirs and occupy most of the pedestrian side walks; (3) heavy traffic jams that cause increased air and noise pollution, and traffic accidents; (4) decreased sanitation due to lack of proper solid waste disposal systems. In addition, the majestic trees which lined the Malioboro streets one hundred years ago have been replaced by shophouses and government offices.

To cope with these problems, the following spatial concept strategies are proposed. First, the structure and function in the Malioboro area should be gradually improved to harmonize with the economic situation. Second, rapid and large-scale change in the inner city should be avoided. In the periphery of Yogyakarta, there are several nuclei that can accommodate new commercial and industrial development. Third, improvements in the environment should be made, including the preservation of historic sites and buildings. Traffic control should be emphasized through, for instance, the restriction of heavy traffic flow, the parking of vehicles, and the regulation of vendors in the Malioboro streets. There are several arguments regarding urban landscape design; some planners want to limit the building height to five stories to preserve the street landscape while others propose to control the placement of advertisements in front of shophouses in order to avoid a commercialized appearance. The planting of more trees along Malioboro street has also been strongly recommended to provide a more pleasant atmosphere.

Synthesis

This article has discussed some aspects of Kyoto and Yogyakarta, two old Asian cities struggling to coordinate and harmonize development with cultural preservation. In Kyoto, a new Japan Railways central station was opened in the fall of 1997. It is a huge, complex building with station facilities, a department store, a hotel, restaurants, and a theater. Older people disliked it, but the younger generation welcomed the new and modern atmosphere. The station’s department store had better business opportunities than other department stores in the city center. A similar case is observed in Yogyakarta. A modern shopping center in the middle of Malioboro street attracted many customers. While some people criticized the building, others praised it. The urban scenes in both cities are changing for better or worse, depending on the prevailing socio-economic practices of the present generation. If we want to improve the urban scene in a city, we should examine not only its physical structure, but also its socio-economic system.

Globalization is advancing rapidly on a large scale, both economically and culturally. Cultural globalization affects society at its roots. Transportation and communication technology, especially television, contributes to the cultural globalization, and the indigenous value systems are dramatically changing and disappearing. The crucial issue is how to coordinate both globalization and localization. There is a great danger that globalization of culture may lead to a monopoly by specific institutions or organizations, even if it is unintended. Re-examinations of the socio-economic system and the adoption of innovative approaches are needed.