

STREET SPACE RENAISSANCE: A SPATIO-HISTORICAL SURVEY OF TWO ASIAN CITIES

Iderlina MATEO-BABIANO
Doctoral Course Student
Transport Research and Infrastructure
Planning (TRIP) Laboratory
Civil Engineering Department
University of Tokyo
7-3-1 Hongo, Bunkyo-ku JAPAN
Email: ibmateo@yahoo.com,
derlie@gmail.com

Hitoshi IEDA, D. Eng.
Professor
Transport Research and Infrastructure
Planning (TRIP) Laboratory
Civil Engineering Department
University of Tokyo
7-3-1 Hongo, Bunkyo-ku JAPAN
Email: ieda@civil.t.u-tokyo.ac.jp

Abstract: The Western-influenced street design concepts have failed to address problems uniquely experienced within Asian streets. This results in unsound solutions and overshadows the need to conserve our unique heritage. To achieve a sustainability-oriented mobility culture requires the revival of the Asian street culture based on the premise that the present space utilization is a consequence of and reflects the underlying pedestrian culture of the past. The discussion centers on street space development in two Asian cities, namely: Edo period Tokyo, under seclusion policy, and Manila, a colonial city. The study draws on the historical survey of urban spaces, visual analysis of pictorial representations and analysis of existing literature. The discourse will focus on the major planning instruments, urban open space morphogenesis; pedestrian and street culture; and the emergent spaces, both movement and non-movement. Finally, it will provide initial recommendations on how to improve sidewalk space and contribute towards an Asian perspective in pedestrian transport studies.

Key Words: Asian Street Space; Edo streets; Manila Streets; Pedestrian culture

1. INTRODUCTION

Empirical studies conducted by Alexander (1965) and Gehl (1987) showed that livable cities were closely related with the vitality of its streets. They proved that an intrinsic relationship exists between increased level of city livability and street pattern complexity. Also, Litman (2003) adds that streets form a major part of the public realm where people are given a chance to interact with their community, thus, walkable streets contribute to positive perceptions of community livability. In this regard, street space design provides an immense potential in the rediscovery of a sustainable lifestyle. However, the current street design concepts being applied in Asian streets had been mostly an adaptation from the West. These concepts, more often than not, overshadow the need to conserve our historical and cultural heritage, failing to address problems uniquely experienced within Asian streets, resulting in unsound solutions.

To achieve a sustainability-oriented mobility culture requires the revival of the Asian street culture. This is based on the premise that the present space utilization is a consequence of and reflects the underlying pedestrian culture of the past. Who makes the street culture? What elements are considered as contributory to a sustainability-oriented mobility culture? What is the best approach to tackle an Asian-oriented pedestrian space design? Given these questions, the discourse focuses on the historical development of street spaces in two Asian cities, namely: Tokyo (Japan), to focus on town planning and street development initiatives during

the Tokugawa period; and Manila (Philippines), during the Spanish period. The rationale for choosing the said cities is based on the level of external (Western) influence. Tokyo (then Edo) was under a seclusion policy for 250-years while Manila, was under Spanish rule for nearly 400 years and exemplifies a colonial city.

A comparative analysis will be conducted to deal with the major planning instruments; urban open space morphogenesis; pedestrian culture and the sociology of street space; and the emergent social and functional spaces. The study draws on the historical survey of urban spaces, visual analysis of pictorial representations and analysis of existing literature as a means of thoroughly understanding the street culture which may in turn provide insightful knowledge on the improvement of contemporary sidewalks. The study of history is necessary since it provides an understanding on the evolution of the local urban context which would ensure the cultural continuity in a city (Oktay, 2002). The study aims to prove that: 1) the difference in street system morphogenesis may not necessarily dictate a difference in space sociology; and 2) the present space utilization is still a consequence of and reflects the underlying pedestrian culture of the past. It provides initial recommendations on how to improve sidewalk space in both case cities, and alternatively, contribute towards an Asian perspective in pedestrian transport studies.

1.1 A Comparative Review of Pedestrian Transport Research in The West and Asia

The act of traveling is an ancient activity wherein pedestrian history alone goes back 5000 years (Peñalosa, 2004). Historically speaking, the purpose of streets was to carry pedestrians and facilitate movement and access while at the same time encouraged interaction within the community (Litman, 2003). Thus, given its role as a generative urban element (Lillibye, 1996), streets define a city's urban landscape (Jacob, 1961). Traditional streets, similar to past public places (i.e. Greek agora, Roman forum), were developed based on the functional need of the people throughout time. The sidewalk was a western invention. The first sidewalk was said to have been built in Pompeii in 200 B.C. with the sole purpose of physically delineating walking individuals from moving chariots and legionnaires (Sidewalk History, 2003). However, the earliest written laws regarding street design dated back to 100 B.C. wherein Roman street width was fixed at a minimum of 4.5 m (15 feet) and had elevated sidewalks on both sides. This became the prototype for modern street design in Europe until the late 18th century (Forbes, 1934). These standards were eventually adopted in the United States and at the same time in other countries in Europe and Asia.

The FHA road standard which was developed 50 years ago became the guiding principle in the design of roads and highways. Over time, local governments have mechanically adopted these standards out of fear of liability. However, it was shown that the over designed road systems have been proven to undermine the quality of life in American communities (Neary, 1998). The 1970 Government Ordinance for Road Structure in Japan displaced the pedestrians and cyclists as they were viewed as obstructions to automobile traffic. Usually, sidewalks were constructed depending on the volume of car traffic while no consideration was given to pedestrians or cyclists. It took 30 years before the Ministry of Construction mandated that newly constructed roads shall be obliged to provide sidewalks and bicycle-only roadways (Japan Bicycle Promotion Institute, n.d.).

1.2. Problems unique to Asian streets

The present urban planning practices in most Asian cities had been heavily influenced by Western ideas and concepts. Assuming that this would stimulate a region's global-competitiveness especially given the fast-paced technological advancements, this strategy often fails to address problems that are uniquely experienced in the Asian Region which results in an urban pattern not well-suited to Asian pedestrians. In a study by Edensor (1999) comparing the Indian and Western streets determined that the Western street regulation is culturally-specific and not easily transferable to non-Western context.

In the design of spaces, the West is known to adhere to the horizontal segregation of spaces, prescribing a one-space one-function design. This is typical in Europe wherein each component of an urban space has its own function such as the "task of the building is to delimit the urban space, the task of the street will be to lead, and the task of the square is to assemble" (Thiis-Evensen, 1992). In general, this is not being practiced in Asia as spaces take on a vertical, multi-functional dimension wherein each function is segregated by time (Hall, 1968). This conflict was plainly manifested when the French colonial rule imposed public and private space segregation to create a distinct area for each activity on Vietnam's development (Drummond, 2000). This converts most of the multi-use space to single-use space resulting in ineffective spaces (Edensor, 1999).

In the case of the Philippines, after becoming a colony of Spain in the late 16th century, its urban structure portrayed the planning principles of the mother colony which served as a morphological model replicated to a greater extent in urban centers throughout the archipelago (Reed, 1978). One of the first mandates was to relocate the natives to the newly developed planned towns. However, initially, such ordinance was met with resistance since most of these natives were not used to living in such a spatial arrangement and most of them fled to nearby mountains (Arcilla, 2004).

Prior to its opening to the West, urban planning in Japan had largely been influenced by Chinese planning principles, although the final layout adhered to the site's topography. During the Meiji era (post-Edo period), Edo adopted western planning (i.e. road development) techniques introducing segregation. Traditionally there was no concept of a distinctly segregated open space comparable to the West,¹ the street became the contextual substitute to the West's urban park or square (Kurokawa, 1988) becoming a place for access, social gathering and living area extension (Sato, 1992). These furthers the need to rethink the street space design process in Asian cities wherein the importance of understanding local culture is an important prerequisite in determining a more effective street space.

1.3. Glocalization: conserving our innate Asian heritage

Glocalization may be able to help pave the way towards a more sustainability-oriented mobility culture by encouraging a broader respect for local powers and cultural diversity. With respect to Asian streets, glocalization makes reference to the need to understand local culture as a prerequisite in determining a more effective street space. With this premise, it may be necessary to return to traditional knowledge. The concept of traditional knowledge refers to systems that were already in place in the past that has properly worked but due to

¹ Sorensen (2002) describes that there was no concept of "the urban park as a public, green open space that provides a place to stroll and a taste of the country within the city."

various factors had been forgotten, but is at present being reconsidered as potential solutions to problems which could not be solved by modern science alone. It is necessary to identify the local histories and how this could provide a multitude of insights to researchers in various fields. The premise for this research states that traditional treatment of oriental space is concerned not only with people's movement but also with non-movement activities.

Anthropologists have proven that there is a salient differentiation in the culture of space perception between the West, referring to Americans and Europeans, and the East, referring to Japan in particular.² Thus, it could be assumed that Asian cities have a traditional knowledge that may be very different from their Western counterpart.

2. STREET SPACE REBIRTH (RENAISSANCE) IN TWO ASIAN CITIES

The discussion in this section deals with the comparative analysis of two Asian cities, namely: Tokyo, under seclusion policy for 250 years during the Edo period, and Manila which was a colonial city for about 350 years under the Spanish rule. The period under study is as follows: for Edo, it will be from 1608 until 1868 while the Philippine colonial period dated from 1564 until 1898. In the latter, the prehistoric period will also be conjured to establish the presence of a society even before the Spanish people conquered the country. Japan was under seclusion policy within this period indicating limited external contact from the world, thereby, restricting external influence on their culture while on the other hand, the Philippines had been highly influenced by Spanish culture and at the same time by its neighboring region due to its ongoing commerce even before the Spanish conquest. Thus, unlike Japan which wholly developed from the generative process of their own indigenous society, Philippine cities resulted from an admixture of Spanish colonial rule (Doeppers, 1972) and other culture.

In this section, analysis will focus on 1) the historical urban context, 2) the planning perspective, 3) pedestrian culture and street space sociology, and 4) the emergent social and functional spaces. An initial an in-depth analysis of each of the cities will be conducted to focus on the similarities and differences that would pave way towards design recommendations that would improve contemporary Asian sidewalk spaces.

2.1. Historical Urban Context

There is a general similarity in the geographic makeup of the two countries. Both are archipelagic in nature referring to the numerous islands which comprise both nations. Both are located along the "Ring of Fire," thus, had been prone to various natural calamities such as earthquake³ and fire throughout its history. It is no wonder that there had been limited structures that had survived time. This influenced the choice of building materials, usually utilizing those abundant in the country. Typical materials include bamboo and paper for Japan, and cane, palm and bamboo for the Philippines. The bamboo featured prominently in the lives of prehistoric Filipino becoming one of the important sources of food, shelter, weaponry, farming and fishing implements, firewood and others (Jocano, 2001). In both countries, most structures were built up to two or three-storeys which provided a rather uniform urban skyline. The resulting design of traditional structures, the Japanese traditional

² Definition of East and West is derived from Hall (1968).

³ The City of Manila had been visited by earthquakes in 1645 (both in November and December), the Corpus Christi earthquake in 1863 (Joaquin, 1999) and in the 1880s.

house and the *bahay kubo*⁴ in the Philippines typify a multi-functional one space room wherein its utilization takes on a vertical dimension and is time-dependent. Events are defined based on the time of the day and almost independent of the corresponding space. However, they had two different types of seasons, with the Philippines having a tropical climate, temperature was almost uniform whole year round while Japan had four seasons, dictating a need to adapt to the various seasons.

Religion has a far reaching effect on the people's way of life, dictating their activities, including their street behavior. Religious traditions have contributed to the molding and development of customs, tradition and the way of life of individuals. Pre-historically speaking, both countries believed in a related type of belief. While Shintoism (way of the gods) became the indigenous religion of Japan, prehistoric Filipinos believed in Animism (the worship of spirits). Basically, the Filipinos of that era practiced an animist religion which featured rituals aimed at pacifying malevolent spirits. However, Confucianism was made into the official political philosophy of Japan throughout the Edo period (Yoshida et al, 1984) while with the coming of Spaniards, majority of Filipinos were converted into Christianity. In Edo, religious districts or *monzenmachi* were in principle built in important routes and travel among commoners were not allowed except when on religious excursions while churches in the Philippines were located on the choicest lots of towns and villages. This further strengthens the influence of religion on the culture and way-of-life of the people. While Japanese popular culture came into maturity during Japan's period of isolation when the nation's surplus energy found its outlet in the field of cultural activities and developments (Kato, 1992), it is said that Philippine's cultural development is an amalgamation of various disparate cultures: of indigenous Filipino, old Malaysian, Islamic, Chinese, Spanish, American and other cultural elements with Hispanic Christianity having the largest impact (Keesing, 1945).

2.2. Planning Perspectives: Comparing Edo and Manila

Recent documents disproved that the development of Philippine towns and cities commenced during the Spanish colonial period. A number of proofs survive on the existence of pre-historic settlements even before the arrival of the Spaniards in the early sixteenth century (Doeppers, 1972; Arcilla, 2004); the presence of skeletal remains found in the Philippine islands which determined the presence of inhabitants between 24,000 to 22,000 B.C. (Fox, 1970) although archaeologists believe that there were ancient men in Cagayan Valley about 500 years before (Fox et al, n.d.); and the existence of a society and a growing culture as characterized by the presence of an old writing system called the *alibata* which was a form of syllabary (Peralta et al, 1974) which was used for business transactions, love letters and record magical formulae of religious significance came into use around AD 1000-1200 (Francisco, 1973). This writing system, however, was not retained up to the present since it was written on perishable media (i.e. palm leaves and pieces of bamboo) (Diringer, 1948). Furthermore, it is alleged that Spaniards destroyed these materials as part of their efforts to convert Philippine inhabitants to Christianity (Francisco, 1973).

When the Spaniards arrived, the late pre-colonial Philippines had been an extremely decentralized society of agricultural and fishing village settlements with strong secondary

⁴ The bamboo-and-nipa huts stood on posts above water or ground; the interior was a single room that served as living room, dining room, kitchen and dormitory (Joaquin, 1999)

trade function. Instead of towns, rivers were dotted with settlements known as *rios poblados*⁵ (Arcilla, 2004). These river villages combined wet rice agriculture with hunting and fishing. The socio-political grouping consists of roughly 30 to 100 families. They were referred to as *barangay* which originally referred to boat people from the Malay Peninsula (Doeppers, 1972). The people belonging to one village in general lived in *sin policia* referring to the lack of a clear political system or central government (Arcilla, 2004).

There was no conception of cities similar to those in the West (i.e. European cities) rather the largest pre-Hispanic settlements were trading centers (Jocano, 2001). Some examples are the minor port-of-call in Cebu (in 1565) and the flourishing trading center of Manila which served as the point of importation for the large Tagalog population. These indigenous settlements provided an initial outlay of the succeeding colonial settlements (Doeppers, 1972) wherein Manila became the seat of government given its position as a bustling trading center.

An expedition set out from new Spain (Mexico) in the 1560s⁶ with the *audiencia*'s orders to Legazpi, the expedition's commander, is indicative of a two-pronged colonial objectives: 1) to introduce the Roman Catholic faith to the inhabitants; and 2) to send the discovered spices and other wealth to Spain (Doeppers, 1972). For them, the Philippines was an exploitation colony (Arcilla, 2004).

Although the Philippines had been under Spanish rule for the next 400 years, there had been no grand plan in the Development of Manila. However, Spanish concepts and ideas were adopted especially in the development of permanent communities. Two striking concepts which physically influenced town building were *bajo las campana* and *cuadricula*.

The initial step in the colonization of the natives was to bring together and relocate the nomadic tribes in clearly defined permanent settlements based on centuries-old experience in town building in the Castillian kingdoms. This helped dictate the detailed colonial choice of sites for permanent communities (Recopilacion,VI). Since these natives were not used to living in organized⁷ communities the government allowed them to live in the mountains provided that they are within hearing distance of the church bells indicating their proximity to a permanent settlement. This system of delimiting town size was created to establish a manageable town and enabled friars or priests to gain easy control over the *indios* or native inhabitants (Arcilla, 2004). Thus, this process was termed as *bajo las campana*.

Ideally, the town center should be accessible to the inhabitant's basic needs (i.e. water sources, wood for building and cooking). By the decree of Philip II, King of Spain, each village and town should be built around a central plaza wherein the latter would serve as focal point and public space for the community. The principal streets, laid out on a grid pattern, should be drawn a *cordel y a regal* (straight and properly measured) from the four sides and four corners of the plaza, the latter corresponding to the four cardinal direction of the wind. The plaza along with the gridiron street system was referred to as the *cuadricula* which became a common feature of present day Philippine towns and cities. Furthermore, secondary plazas were to be built with arcaded walks along narrow streets to provide shade in a warm climate. Since Roman Catholicism was utilized as the main instrument in colonization, a stone church is, located on the choicest lot fronting the main plaza. The *presidencia* or government building on the opposite side, the Chinese merchants and market place were

⁵ Rios poblados refer to clusters of houses stretching from the rivermouths by the sea upward along the rivers inland

⁶ This is the fourth expedition which started in 1521.

⁷ This is based on Spanish-dictated community planning standards.

given third choice lots (Keesing, 1945) and sometimes, the school, and the fourth, the houses of the more prominent town residents (Arcilla, 2004).

Comparing Manila to Edo's spatial development, the latter illustrated an enormous change on the urban pattern during the three time period, from the early Edo (1630s) to mid Edo (1670s) and to the late Edo (1865) (Tanaka, 2004). Edo was being developed as one of the castle towns or *jokamachi*⁸ all over Japan within this time period. However, Edo was developed as the main castle town of the archipelago with the castle taking on the geographic center of Edo's development. Historically, it had been influenced by Chinese planning principles which defined the planned city to replicate the old Kyoto Capital with a (Xu, 2003) a planned city laid out in a grid pattern reminiscent of Kyoto⁹ (Naito, 2003). However, the above plan was considerably altered and had to be slightly skewed (Naito, 2003) since it needed to adjust to the topography of the area (Jinnai, 2004) resulting in a more organic layout. The development emanates from the central walled city of the Edo castle (which is still the present location of the Imperial Palace) with new developments following a radial spread towards the periphery (Jinnai, 1995). It was developed with fortified walls to block external attacks as well as to drive away commoner mob. Surrounding the castle are expansive dwellings of the upper vassals while the commoner areas were located in front of the main gate of the castle or along major roads leading to other areas (Sorensen, 2002). The spatial arrangement implies the social organization of the Edo society. Tokugawa shoguns arranged the *daimyo* (nobles) in concentric zones around the capital. Proximity to the core reflects closeness of relationship and loyalty to the shogun while farther away meant that these persons were less trusted or whose loyalty was in question (Hall, 1968).

The expansion of the city was made possible with the gradual exploitation and enlargement of the canal system (Naito, 2003). The expansive sprawl had been brought about by three major factors, namely: military considerations after emerging from a hundred years of war in the early Edo; class segregation between the samurai class and the commoners within the castle town resulting from the introduction of a feudal society; and the immense population growth due to birth and in-migration (Kato, 2000). Furthermore, the *sankin kōtai system*¹⁰ helped encourage the physical growth of the area. But even with the radial spread, the rigid separation among the social classes was still maintained (Cybriwsky, 1998).

If the development of Philippine cities originated from the plaza, the core of development of Edo districts initiated at intersections. City districts were bounded by streets, these blocks were then quartered into core quadrant neighborhoods called *cho*. These were then reassembled into fours around intersecting streets to form new districts termed as *machi*. The latter became the formal unit of residential areas where it no longer was bounded by streets but actually enclosed the street space (Kurokawa, 1988). All four sides were composed of *machiya* or merchants' townhouses with the central common area with a communal well (*idō*) and latrine usually left empty functioning as a firebreak.¹¹ The *machiya* which doubled as shops fronted the main roads while at the back alleys were built through the previously empty commons and cheap, flammable structures erected called *nine-shaku two-ken* tenements form

⁸ Castle town formed the administrative and military core of the feudal domain with Edo serving as the seat of the Shogun government.

⁹ This is based on the Tang Chinese capital of Changan wherein the latter was influenced by yin and yang principles which complies with the requirements of the gods of the four directions: the Hirakawa river ran to the east in the realm of the Cyan Dragon; beyond Sumidagawa river lay Edo Harbor, satisfying the requirement of the Vermillion Bird; the Tokaido Highroad led to the west, as necessitated by the White Tiger, and Mount Fuji, as seen from the Kojimachi Heights, rose up in the north for the Dark Warrior.

¹⁰ The sankin kotai system required the daimyō to spend alternate years in Edo. As the Daimyo were also expected, as well as other high officials, to maintain an expensive lifestyle in Edo, their presence stimulated the demand for many types of goods and services in the city, and attracted a thousand of craftsmen, merchants, and other townspeople to Edo to make a living (Cybriwsky, 1998).

¹¹ The occurrence of fire was very common in the Edo period Japan.

the *nagaya* or back street rowhouses. These were rented out to accommodate less affluent tradespeople (Jinnai, 2004).

To ascertain segregation the city of Edo was developed broadly into two main distinct districts, the *Yamanote* and *Shitamachi*. The western high city is the *Yamanote*¹² which was the area inhabited by the samurai class and the location of temples and shrines. The eastern portion, known as the low city, is the *Shitamachi*¹³ an area of flatlands reclaimed from the bay and river deltas. It served as the domain of the common people or townsfolk (i.e. chonin, merchants and artisans) who lived and worked together in districts partitioned according to their trades. This area has evolved into the present day business hub of Tokyo (Cybriwsky, 1998). Edo presents a coherent structure of road system which comprises its organic city web. The *Yamanote* area exhibited a typically expansive and 'organic' road network while the *Shitamachi*, typical of most *machi* districts in castle towns, were laid out in a regular grid pattern usually patterned after the land subdivision system first used in Nara and Kyoto (Sorensen, 2001). Although at the macro-scale much of the high city is characterized by a generally disordered landscape, it still follows a neatly allocated urban organization which strongly suggests the presence of planning. The network follows an irregular urban organization (organic pattern) closely adapted to the topographical setting of the area working in close coordination with its natural setting (Jinnai, 1995). The Edo streets were considered to support a collection of vital and dynamic living spaces, serving multi-purpose functions. Activities participated in by the common man such as those in the pleasure quarters, commerce and trade, and the Edo landscape were among the most popular subjects depicted in the various *ukiyo-e*¹⁴ or woodblock prints. Typical streets are aligned in the direction of famous natural landmarks.¹⁵ An example are the cross streets in *Suruga-cho*, an area near Nihonbashi. This provided views that became synonymous with the Edo townscape (Jinnai, 2004).

In the case of the Philippines, the Spaniards reached Luzon at the indigenous port settlement of Manila which was situated at the mouth of the Pasig River (Doeppers, 1972). This initiated the colonization of the country which, at the beginning, was hampered by the physical geography of the country with two oceans separating the colony from the metropolis (Arcilla, 2004). Similar to Edo and with the sole aim of segregating the Spaniards from the *indios*, Spanish Manila was subdivided into two areas, the *Intramuros* referring to the city within the wall and *Extramuros*, the city outside the wall. The former referred to the fortress-complex area which was patterned after the European medieval city while the latter referred to villages outside the walls which later on became *pueblos* that housed the *indios*. The most famous among the *pueblos* was the *Pueblo de Binondo*, an area which later on developed into a commercial district for the rich. Its main street was known as *La Escolta*. One of the 16th century villages across the river, *San Nicolas de Tolentino*, which was beside Binondo, was considered as the core commercial Spanish town which grew out rapidly to the *estero* waterline. This area formed a triangle which was bounded by *Calle Jaboneros*, *Muelle de Binondo*, and *Muelle de Industria*, and made up various streets (Ira, 1977). Spanish influence is reflected in the *Intramuros*, with its high stone ramparts, narrow streets and church of Manila (Keesing, 1945) contains remnants of the Philippine's Spanish past. Typical houses

¹² The term means in the direction of the mountains.

¹³ An area of flatlands reclaimed from the bay.

¹⁴ *Ukiyo-e* is a kind of woodblock printing popular during the Edo period usually, it depicted the everyday life of Edo people.

¹⁵ The basic position and direction of Edo's major thoroughfares were designed to provide views of the city's scenic spots including Mt. Fuji, the Musashino Plain, the Sumida River, Mt. Tsukuba, Mt. Kanda, the Yushima and Hongo Plateaus, Shinobugaoka (Ueno), the Main Enclosure and Nagatacho Plateaus, Mt. Atago, Shiba-Zojoji Urayama, Shiba Maruyama and many others.

within the area were called *bahay na bato* (house of stone) described as two-storey, red-tiled edifices of quadrangular form which is entered through a massive arched gateway. Living space is located in the second floor while the basement storey is built of thick walls to resist earthquake and is seldom used as a dwelling-place but frequently appropriated as mercantile establishments, offices or store-rooms.

Furthermore, similar to Edo, the waterways of Manila, specifically the Pasig river, served as a distribution network for the produce of the city and the provinces. At most points, there were loading and unloading points for the bancas and cascoes (De Viana, 2001).

2.3. Pedestrian Culture and Street Space Sociology

The four centuries as a Hispanic colony resulted in the integration of western Christian values with the indigenous cultural imperatives wherein the dynamic of which was social acceptance. Malaysian culture is very much ingrained in the Filipino psyche, and is reflected in the elements of Manila's streets. The bamboo-and-thatch homes off Manila's main streets, the craftwork of the markets, the seasonal drama of rice cultivation, dietary habits, child training, attitudes to elders and to persons of authority, the sacred trees, charms, and other elements of ancient yet persistent belief. These are matters attributed with physical survival, social status, spiritual welfare, and other basic securities (Keesing, 1945).

As stated earlier, class segregation had been among of individuals also occurred. Usually, streets were named based on the existing trades of the people living in the area. As an example, *Calle Jabonares* was so named after the Binondo soapmakers, *Ilang-ilang* from the pungent flower whose essential oil was extracted for perfume making, and *Calle Fundidor* derives its appellation from the town's foundry smiths, *Calle Anloague* was so named after the *anluwages* or carpenters who lived in the area (De Viana, 2001).

One of Manila's main streets in the early nineteenth century, which was located on the north of the Pasig and parallel to the river was *La Escolta* (Ira, 1977). *Calle Escolta*, considered as the commercial center for the wealthy and dignified, was distinguished among other streets of Binondo because it was well-paved with cobblestones and *piedra china* blocks brought from Hong Kong. *Calle Rosario* was the shopping hub of the common people. It is esteemed as beautiful, quaint and dotted with small but rich stores, Rosario led directly to the *Puente de España* to the Church of Binondo. *Calle San Fernando*, the third main commercial street, was 392 meters long, was not only filled with permanent stores but with ambulant vendors and portable stores which may be considered as second layer of shops along its sidewalks (De Viana, 2001). One of the main sights were the food sellers who served piping hot noodles, or *pansit* as the Tagalogs called it, and *taho* or soy bean curds sweetened with molasses. Sidewalk vendors may be considered as an institution in downtown Manila as they have become a constant presence in Manila's street sociology (Ira, 1977). The streets of Binondo were typically wide and provided sidewalks which were segregated from the main thoroughfare. Sidewalks had *toldos* or awnings unfurled to protect customers from the afternoon sun. Houses were typically three-storey high (De Viana, 2001) and usually utilized tile roofs. However, after the 1880 earthquake structures were required by the government to use galvanized iron roofing to protect passersby from falling tiles (Ira, 1977). To provide street lighting, kerosene lamps were used along *Calle Escolta* while it was a typical sight to see various banners advertising the local shops and stores.

Nights in Binondo were made lively not only by strolls, along its well-lit streets but also by the activity in the night market of *Omboy* located farther west of *Santo Cristo*. Here in the *Mercado de Omboy* were different food stores, meat, fish, fruit and vegetable stalls. Tobacco stores, barber shops, carriage rental shops and calendar makers (De Viana, 2001).¹⁶

During the Spanish period, aside from walking, carriages were utilized as a form of transport within Manila's streets. The four-wheeled carriages were then in vogue by the city's affluent class (Ira, 1977). The increase in the number of carriages that circulated the capital and *arrabales* posed grave danger to pedestrians. Thus for safety reasons, a regulation was effected that required all corner structures at intersections or street confluences, wherein both carriages and pedestrians are expected to meet, to create chafians so that little polygonal plazas will result at the confluence of the four streets (De Viana, 2001).¹⁷

In the case of Edo, traveling was done mostly by the daimyo class as they were required to submit to the *sankin kotai* system or the system of alternate attendance (Gordon, 2003). Except for the purpose of going on a pilgrimage, the law forbids the common person to travel for leisure. And since the choice of transport modes were very limited, most individuals walked within Edo or did their inter-city travel by foot. It was only in the latter part of Edo that the palanquin and rickshaw¹⁸ (Matsumoto, 2004) were introduced. The use of horses was limited to carrying goods and mails, usually for communication purposes (Naito, 2003).

As stated in the previous section, rigid separation of the social classes required strict segregation of the residences, the *samurai* class lived in *buke-yashiki* in the *Yamanote* area while the clergy and *chonin* (i.e. merchants, artisans) resided in the *Shitamachi*. Both had contrasting characteristic. While the former is reminiscent of middle class area with shopping streets, the latter typifies a suburban area which is purely residential. However, for the purposes of this paper, the focus of discussion will be on the *machiya* area which portrays the typical Edo city block.

Religion and way of life were intrinsically-related in the Edo era. Streets served as a multi-purpose space hosting various activities. It was utilized as a road-side rest area (Yokota et al, 2003) for people stopping by to rest. Some portions of the street also served as eating place in the form of *yatai* stalls creating a new street culture and identity to areas in Edo. '*Koshikake jaya*' or teahouses along the streets were also common. These are places where people sat on benches (*koshikake*) to sip green tea. Matsumoto (2004) supposed that Edo citizens who visited Atagoyama Hill must have admired the scenic beauty while sipping green tea. It also served as a market place or street bazaar such as the fish market found at the open space at foot of the *Nihonbashi* bridge popularly known as *sakariba* or *hirokoji*. Street stalls or *rotenshō*¹⁹ were also present to sell miscellaneous¹⁹ articles for daily use on busy street corners. Various street vendors or *gyōshōnin* were also present. These are itinerant merchants and peddlers who sometimes travel around the country along their nationwide sales route and sales distribution system. Also common were street entertainment (*daidōgei*) which resulted from ancient court and religious functions and reached its peak of popularity with the growth of cities.²⁰ Also, various festivals (*matsuri*) took place within the streets of Edo almost taking

¹⁶ Comision Central de Estadisticade Filipinas 2^o Cuaderno (Manila: Imprenta del Boletin Oficial, 1858) p. 25.

¹⁷ Lifted from Gaceta de Manila. 09 April 1869. "Bando Ordering the Creation of Chafians at Street Intersections in Manila."

¹⁸ The rickshaw or jinrikisha is a man-pulled passenger vehicle invented in 1869 and went into business in Tokyo a year later. In 1871, there were more than 10,000 jinrikisha cruising the streets of Tokyo.

¹⁹ Kinds of stalls: *yomise* – stalls that appear at night first appeared in the late Edo period in Osaka; stalls that open only on special days; and day/night stalls which appear on a regular location which may considered as forerunner of the Japanese shopping street.

²⁰ It came to rank with *Kabuki* and *jōrori* as an important form of popular entertainment. Around 300 different types of street entertainers

place on a daily basis which more often than not depicted the celebration of the everyday life.²¹ It was considered as a product of Japan's religious belief which typically portrayed the intrinsic relation between religion and way of life and served as a means of achieving religious enlightenment (Yanagita, 1956). Also, the presence of various shrines found along Edo's side streets indicated that the streets served as a ritual place for religious exercise. This still found a place even in contemporary times. And lastly, it served as playground for children especially along the blind passageway or *kansho* located in the backstreet rowhouses (Kurokawa, 1988).

Japan's streets were generally narrow and hook-shaped (Sorensen, 2002). However, the Edo street widths were considered generous as compared to other Japanese cities (Naito, 2003). The typical building height was up to two levels while corner lots were allowed to go up to three-storey high since parcels at intersections dictated higher land value. The ground floor of the *machiya* was converted into commercial space while the second level became the living space. There was typically a mixture of activities within the streets, sometimes serving as an extension of the living space with access just becoming a secondary function. Thus, Edo streets, similar to its Manila counterpart, were historically conceived as something between public and private, both serving as urban thoroughfare and semi-residential space. This strengthens the oriental conception of the city wherein street space becomes an in-between space and furthermore, the street acting as community core bringing about social cohesion. And even with Spanish regulations dictating the street morphology of Manila, the sociology remains similar to its Asian neighbors.

2.4. Emergent social and functional spaces

Traditionally, both cities exhibit similar emergent social and functional spaces brought about by the similarity of pedestrian activities on its streets. Furthermore, it has been proven that traditional streets have functioned not only as access space but rather a place where experience is made and local culture is developed. Ensuring its consideration in the design of present-day street spaces would furthermore, bring about a sense of place, source of pride and historical significance towards its dwellers.

In Edo, aside from its streets, shrine and temple grounds were the only expansive space available to the people. Also, for the *machiya* and *nagaya* dwellers, the *kaishochi* or central, common area within the residential quarter of the merchant districts offered a common well and latrines for general use, as well as a small neighborhood shrine honoring the Shinto deity *Inari*. It also becomes a gathering spot for wives' meetings at the well (*idobata kaigi*) (Naito, 2003). The *kansho* or backstreet alleyways provided venues for children to play and provided the backdrop for much of Edo life. Also, the *sakariba*²² or entertainment districts in wide open spaces at the foot of the bridge, usually located in between the waterfront and land traffic provides city dwellers a place to enjoy themselves (Jinnai, 2004). Sometimes these also serve

were active during the Edo period – illusionists, candy and medicine peddlers. Performances include simple dramas, freak shows, exhibitions, peep shows, and trained-animal acts. Examples include *saru mawashi* (monkey show) which preserved its original form in *Hikari* in Yamaguchi prefecture, *Manzai* (witty dialogues), *goze* (troupes of blind women singers), *daikoku-mai* (dances performed by people wearing a costume of *Daikoku*; one of the 7 deities of good fortune and *ningyō mawashi* (street puppeteers) can be seen in certain rural areas; and street corner sumo which was one occupation considered suitable for a samurai.

²¹ *Matsuri* means to be in the presence of and to render service to a deity. Typically, these were extremely modest affairs in which only a small number of villagers directly attached to the shrine would gather for offering and sacred sake.

²² After the fire of 1657 (Mereiki fire), the shogunate allocated wide open spaces at the foot of bridges and around ponds to serve as firebreaks. This evolved into *sakariba* or entertainment districts which attracted foot traffic (i.e. *Edobashi hirokoji*)

as fish markets such as those that were found in *Nihonbashi*.²³

In Manila, it was basically the plaza as well as the streets that became the core of community life. The plaza served as the focal point of development, social space for the community, dictated the location of other urban elements and along with the church, determined the size of the city or town (Alarcon, 2001).

The table below discusses other elements that had been compared between the two cities.

Table 1. A Comparative of Attributes between Edo and Manila

FACTORS	EDO (TOKYO)	MANILA
Social grouping	<i>Samurai</i> , Farmers, Artisans, Merchants	<i>Principales</i> and <i>Indios</i> (native Filipinos, Chinese, Indians)
Socio-spatial segregation	<i>Yamanote and Shitamachi</i>	<i>Intramuros and Extramuros</i>
City type	Secluded City; <i>jokamachi</i>	Colonial City
Planning Influence of Religion	Influenced by Chinese planning principles rooted on Confucian, Buddhist, and Shinto beliefs	Heavily influenced by Hispanic Catholicism, with the amalgamation of various disparate cultures
Spatial configuration	Spatial arrangement followed Feng shui geomantic principles based on the yin-yang theory although had to conform to site topography	The Law of the Indies - each town is built around a central plaza, having a gridiron street pattern with the church and other prominent structures surrounding it
Waterways	Manmade waterways were important transport and communication routes	<i>Rios poblados</i> ; Pasig river functioned as transport routes
City form determinant	canal systems View planning towards natural spots	Church location The plaza
Machi or city block formation	<i>Machi</i> - city districts bounded by streets, quartered into core quadrant neighborhoods, reassembled in fours around intersecting streets to form new machi.	<i>Cuadrícula</i> A central plaza with principal streets laid out in gridiron. The block is divided into four lots, always fronting the streets.
City size Determinant	Canals – winding outwards for the purpose of expansion The presence of the Shrines and temples defined the limits of Edo; guarded against negative elements	<i>Bajo las campana</i> - Natives were allowed by the government to live in the mountains provided that they are within hearing distance of the church bells, delimiting town size
Street	Road widths were based on Kyoto standard, with Honchodori Avenue and the other major roads that intersected it. Named after the block name	Principal streets were laid out in a grid pattern, straight and properly measured from the four sides, four corners of the plaza, corresponding to the wind's four cardinal directions
Street orientation	View planning wherein streets are oriented towards natural conditions	Streets are oriented along the church, the focal point of development
Important physical locations along streets	Intersections were named rather than streets; street stalls located at street corners, had the highest land value; served as focal point as blocks are reassembled within the intersection	Plaza the plaza served as the community's focal point and public space;
Societal culture	vertical society	Collectivism or a strong sense of group

²³ This literally means Japan bridge where all the distances in Japan are measure from.

	culture of consensus Amae psychology Genkan – <i>naka and soto</i> (in and out)	(<i>Pakikisama</i>); Community (<i>bayanihan</i>); Cooperation (<i>pagtutulungan</i>); Extended network
Social spaces	Shrine and temple grounds; <i>kaishochi</i> ; <i>sakariba</i> ; <i>kansho</i> ; <i>hirokoj</i>	Plaza; sidewalks; market place (i.e. <i>Parian</i> in Manila)
Pedestrian activities/spaces	Walking, rest area, eating place, market place, stalls, vending, entertainment, teahouses, festivals, for religious exercise, playground	Walking, peddling, commerce, eating place, stalls, entertainment, festivals, a ritual place for religious exercise, playground for children
basic form of transport	Walking; Horse for goods transport and communication purposes	Walking Horse-drawn carriage
Road Pavement	Roads in Edo were unpaved to adapt to the changing season	Generally speaking, streets were dirt roads and unpaved; some were cobbled
House/ structure	Wood and paper – <i>shoji</i> ; one or 2-storey wooden structures made from wood, bamboo and paper	<i>Bahay kubo</i> , <i>Bahay-na-bato</i> - Two- storey houses made of wood with cane and palm, later on utilized masonry using adobe
Urban Design Elements	Nihonbashi, edo castle, fish market, Mount Fuji	Plaza

3. DESIGN CONCEPTS AND RECOMMENDATIONS FOR ASIAN STREETS

The previous sections illustrated that emergent spaces have been present in both histories of Manila and Edo. These spaces emerged as a result of the continuous interaction of people on the streets creating a unique, localized street culture. Through this study, it was determined that there lies an intrinsic connection between religion and daily life wherein both cities illustrated the importance of celebrating everyday life. For both cities, the spirit of collectivism was manifested on how social groupings interact and utilize social and functional spaces. The concept of integrating spaces or developing mixed use space would conform to Asian spatial needs. The vagueness and multiplicity of use of space eliminates concrete compartmentalization of discrete activities. Space should be designed based on time of use and not on a one-space per function basis since the latter would result in inefficient spaces. The aim is to save on space, a prerequisite in the design of Asian street space. This also complements the higher tolerance to congestion which Asian people are more accustomed as compared to their European or American counterpart. This necessitates the reexamination of space provision per person given the difference in the level of comfort.

There is also a need to reexamine the impact of encroachments and obstructions and how it may be viewed in a positive light. Pedestrians currently perceive the presence of ambulant vendors and hawkers as the main contributor to sidewalk congestion and increased danger. However, historically it has been shown that vendors and street stalls had been part and parcel of Asian sidewalks. One of the supposed reasons for their continued presence is the convenience they provide to passersby. With this in mind, the problem may be reevaluated as being the improper allocation of street space. In pedestrian-oriented streets in both the Philippines and Japan, vendors have been allowed to utilize the sidewalks for commercial purposes. This also provides the potential of designing fixed and semi-fixed feature of street elements to make street space more efficient.

One of the main points discovered in this paper is the importance of intersections. This has the ability to increase street livability since it has been shown that maximum exchange among

street users occurs at street corners. Thus, its design should not to clear out people nor limit positive conflicts, but rather to encourage community. In the Spanish period, intersections were required to have chaflan to limit conflict between pedestrians and carriages and at present, to discourage pedestrian-vehicle conflict. However, by reevaluating priorities, the increased outdoor space may actually be converted into livable, interactive space. Potential use of this area may include ambulant vendor areas, rest areas, waiting areas crossing pedestrians, or aesthetic landscape, depending on the corresponding use of the corner establishment. Intersection design should encourage not only movement but non-movement activities as well.

The idea of a green sidewalk would also be feasible, given the intrinsic relation between nature and daily life among Asians. This is also true as shown by the traditional religions of both cities. It is common to see street shrines being put up by the fronting residence or establishment. If given ample space, natural elements are not just environmental needs but actually based on the psyche that nature is important in the design. However, more often than not, in most historic districts, streets are narrow and there is limited space that can be allocated for greeneries. Furthermore, historic districts aside from building conservation should look into conserving street physical and cultural elements. Also, pedestrian scale should be maintained by encouraging low rise structures such as those up to three or four-storey in height. This and the provision of awnings or covered walks, most especially in tropical cities in Southeast Asia, would increase the physical ease and comfort of street users.

It has also been shown that non-movement behavior is as important as movement in the Asian street space. Non-movement space is a product of the interaction between movement and non-movement behavior (such as sitting, waiting, chatting, to name a few) of pedestrians. Some of the potential changes in reintroducing non-movement space include enlivening and revitalizing the sidewalk, improving quality of the environment and more efficient use of space. Factors that may affect the development of Non-movement space may include: the design of intersection, the spatial block arrangement, the interaction of the front and back street sociology, the land use mix, frontage width among others.

4. CONCLUSION

There is a pressing need to develop a new perspective on sidewalk space design especially within Asia. This entails the review of current design approaches and their effectiveness when applied to the Asian context. This study provided an initial attempt on comparing the historical-cultural perspective of both cities, given the premise that effective design comes for the consideration of local history and culture which only can be derived with the study of a city's historical trend.

The paper had shown the evolving concept of space within Asian cities, particularly of Edo (Tokyo, Japan) and Manila (Philippines). At a macro-level, it compared various aspects of planning principles adopted as well as external factors (i.e. environmental conditions, social/religious beliefs) that had contributed to its present state. While at the micro-level, it analyzed emergent spaces, both functional and social purposes, and how the spaces were derived, signaling the importance of pedestrian culture in developing effective spaces.

It utilized a historical approach. Through the historical survey conducted, the study has shown that the revival of the culture of the streets may be a feasible alternative to achieve a sustainable-street space. This also strengthens the point that cultural history is useful in

achieving street space renaissance. There is an ongoing osmosis of ideas in various related fields and this osmosis has provided revolutionary changes in each of the fields. Also, it is important to note that “Asian-initiated” ideas are beginning to be manifested in the mainstream West, thus, making it important to discover the Asian traditional “ways of doing things.” This furthermore strengthens the need to reconnect present-day urban design proposals with their cultural context so as to spatially express localism originating from cultural diversity.

REFERENCES

- Alarcon, N. (2001) The roles of the plaza: the Philippine experience. In P. Miao (ed.), **Public Places in Asia Pacific Cities: Current Issues and Strategies**. Kluwer Academic Publishers, Netherlands.
- Alexander, C. (1965) A city is not a tree, **Architectural Forum**, **122**, 58-61.
- Arcilla, J. (2004). **Reappraising Philippine History [online]**. Available from: <http://www.wadmu.edu.ph/files/212/07_Arcilla.pdf> [Accessed 12 August 2004].
- “Bando Ordering the Creation of Chaflans at Street Intersections in Manila (A free Translation)” *Gaceta de Manila*, April 9, 1869.
- Comision Central de Estadisticade Filipinas 2^o Cuaderno (Manila: Imprenta del Boletin Oficial, 1858).
- Cybrivsky R. (1998) **Tokyo: The Shogun’s City at the Twenty-First Century**. John Wiley & Sons, New York.
- De Viana, L.D.C. (2001) **Three Centuries of Binondo Architecture 1594-1898: A Socio-Historical Perspective**. UST Publishing House, Manila.
- Diringer, D. (1948) **The Alphabet: A Key to the History of Mankind**.
- Doeppers, D. (1972) The Development of Philippine Cities Before 1900. **The Journal of Asian Studies [online]**, **31 (4)**, 769-792. Available from <<http://www.jstor.org>> [Accessed 08 June 2004].
- Drummond, L. (2000) Street Scenes: Practices of Public and Private Space in Urban Vietnam. **Urban Studies**, **Vol. 13**, 2377-2391,
- Edensor, T. (1999) The Culture of the Indian Street. In N.R. Fyfe (ed), **Images of the Street: Planning Identity and Control in Public Space**. 205-221. Routledge, London.
- Francisco, J.R. (1973) **Philippine Paleography**. Linguistic Society of the Philippines, Quezon City.
- Fox, R. (1970) **The Tabon Caves: Archaeological Explorations and Excavations on Palawan Islands, Philippines**. National Museum, Manila.
- Fox, R and Peralta Jesus (n.d.) **Preliminary Report on the Paleolithic Archaeology of Cagayan Valley, Philippines and Cabalwan Industry**. Proceedings of the First Regional Seminar on Southeast Asian Prehistory and Archaeology. National Museum, (Manila. 100-147.
- Gardner, R.S. (2004) **Philippine Journeys: Discovering Philippines [online]**. Available from: <<http://www.aenet.org/manilaexpo/discover.htm>> [Accessed 08 June 2004].
- Gordon, A. (2003). **A Modern History of Japan From Tokugawa Times to the Present**. Oxford University Press: New York, Oxford.
- Government Ordinance for Road Structure in Japan (1970)
- Gehl, J. (1987) **Life Between Buildings: Using Public Space**. VanNostrand Reinhold Co. Inc., New York.
- Hall, E.T. (1968) **The Hidden Dimension**. 1st edn. Doubleday, New York.
- Ira, L.B. (1977) *Streets of Manila*. GCF Books, Quezon City.
- Ishikawa, E. (2000) The Sun and Petroleum. In **The Edo Period had an Ecological Society [online]**. (Originally in Japanese *O-edo ecology jijo* (2000). Kodansha Publishing Company, Tokyo. Available from: <<http://www.japanfs.org/en/column/ishikawa.html>> [Accessed 01 December 2004].
- Jacobs, J. (1961) **The Death and Life of Great American Cities**. Random House, New York.
- Japan: Illustrated Encyclopedia. (1993) Kodansha Ltd, Japan.
- Japan Bicycle Promotion Institute website. (n.d.) Available from: <<http://www.jbpi.or.jp/english/topics/enews14.html>> [Accessed 08 August 2003].
- Jinnai, H. (2004) Edo the original Eco-city. **Japan Echo**, **Vol. 31, No.1**.
- Jinnai, H. (1995) **Tokyo: A Spatial Anthropology**. Berkeley: University of California Press (originally published as *Tokyo no Kukan Jinruigaku*, 1985).
- Joaquin, N. (1999) **Manila: My Manila**. Bookmark, Makati City.
- Jocano, F.L. (2001) **Filipino Prehistory: Rediscovering Precolonial Heritage**. Punlad Research House,

Quezon City.

- Kato, H. (1992) Japanese Popular Culture Reconsidered. In **Media, Culture, and Education In Japan: A Collection Of Papers [online]**. National Institute Of Multimedia Education, Tokyo. Available from <<http://Homepage3,Nifty,Com/Katodb/>> [Accessed 31 July 2004].
- Kato, K. (2000) Edo in the seventeenth century: aspects of urban development in a segregated society. **Urban History, Vol. 27, No. 2**. Cambridge University Press, United Kingdom
- Khan, F., Jawaid, M., Chotani, H., and Luby, S. (1999) Pedestrian Environment and Behaviour in Karachi Pakistan. **Accident Analysis and Prevention, 31**. 335-339.
- Keesing, F.M. (1945) Cultural Trends in the Philippines [online]. **The Far Eastern Quarterly, Vol.4, No. 2**, 102-108. Available from <<http://links.jstor.org>> [Accessed 03 August 2004].
- Kimura, T. and Muiyou, C. (2001) Town planning in Peninsular Malaysia. In Chishaki T. (ed), **City Planning in Asia**. Keio University Press, Tokyo.
- Kurokawa, K. (1988) **Rediscovering Japanese Space**. John Weatherhill, New York and Tokyo.
- Lillebye, E. (1996) Architectural and Functional Relationships in Street Planning: A Historical View. **Landscape and Urban Planning 35**, 85-105.
- Litman, T.A. (2003) **The Economic Value of Walkability** [online]. Victoria Transport Policy Institute website. Available from: <<http://www.vtpi.org>> [Accessed 12 March 2003].
- Matsumoto, T. (2004) **Time Travel Minato City 100 to 150 years ago: Atagoyama Hills [online]**. Available from: <http://www.city.minato.tokyo.jp/e/minato/mm020701/07_11.html> [Accessed 08 June 2004].
- Naito, A. (2003) **Edo, The City that Became Tokyo: An Illustrated History**. Kodansha International, Tokyo.
- Nearby P. (1998) Designing Streets: Weighing Community and Mobility [online]. Available from: <<http://user.gru.net/domz/streets.htm>> [Accessed 08 June 2003].
- Nisbett, R.E. (2003) **Geography of Thought: How Asians and Westerners Think Differently...and Why**. Free Press, New York.
- Oktay, D. (2002) The quest for urban identity in the changing context of the city: Northern Cyprus, **Cities, Vol.19, No.4**, 261-271. Available from <www.elsevier.com/locate/cities> [Accessed on 25 July 2003].
- Peralta, J.T. and Salazar, L.A. (1974) **Pre-Spanish Manila: A reconstruction of the Pre-History of Manila**. National Historical Commission, Manila.
- Recopilacion de Leyes de los Reinos de las Indias (n.d.) Reducciones y Pueblos de Indios. Libro VI.
- Reed, R.R. (1978) **Colonial Manila: The Context of Hispanic Urbanism and Process of Morphogenesis**. University of California Press, Berkeley, Los Angeles, London.
- Samadhi, T. (2001) The Urban Design of a Balinese Town: Placemaking Issues in the Balinese Urban Setting [online], **Habitat International 25**, 559-575. Available from <www.elsevier.com/locate/habitatint> [Accessed 08 October 2003].
- Sato, M. (1992) **Community Design Elements of Modern Environmental Landscape and Signage**. Graphic-sha, Tokyo.
- Sidewalk History 101 Website. (2003) Who Came Up With That Brilliant Idea, Anyway? Blithering Antiquity©. The Magazine of Historical Curiosities, Inquiries & Intrigues Hornpipe [online]. **Vintage Publications, Vol.1, No. 7**. Available from: <<http://www.hornpipe.com/ba/ba7b.htm>> [Accessed 08 May 2004].
- Sorensen, A. (2002) **The Making of Urban Japan Cities and Planning From Edo to the 21st Century**. Nissan Institute/Routledge Japanese Studies Series. Routledge, London, New York.
- Tanaka, Y. (1998) The Cyclical Sensibility of Edo-Period Japan, **Japan Echo, Vol. 25, No. 2**.
- Technological Standards for Road Improvements (2001).
- Thiis-Evensen, T. (1992) **Byens Uttrykksformer**, Universitetsforlaget, Oslo.
- Xu J. (2003) A Framework for Site Analysis with Emphasis on Feng Shui and Contemporary Environmental Design Principles. Dissertation. Virginia Polytechnic Institute and State University. Available from: <http://scholar.lib.vt.edu/theses/available/etd-10172003-101905/unrestricted/3_EnvPrinciples.pdf> [Accessed 08 August 2003].
- Yanagita K. (1956) **The Japanese Festival**. Tokyo: Kadokawa Bunko. White series No. 83, Kadokawa Shoten. (originally in Japanese: *Nihon no Matsuri*).
- Yokota, T et al. (2003) **Guidelines for Michi-no-Eki (Road-side Rest Areas) in Developing Countries**. Interim Report, World Bank.
- Yoshida, Mitsukuni, Tanaka Ikko and Sesoko Tsune (eds.) (1984) **The Hybrid Culture: What Happened When East And West Met**. Mazda, Hiroshima.