The Sociology of Street Use in Edo and Colonial Manila

Iderlina MATEO-BABIANO, PhD
Lecturer, School of Geography, Planning
and Environmental Management
The University of Queensland, Australia
Tel. No. +61(07) 336-53916
Email: i.mateobabiano@uq.edu.au

Hitoshi IEDA, D. Eng.
Professor, Civil Engineering Department
The University of Tokyo
Email: ieda@civil.t.u-tokyo.ac.jp

Abstract. People on the streets create a unique culture just by occupying its space. A user-centered design considers first and foremost the needs and behavior of these individuals as they utilize the street space. The paper examines street user behavior in Edo and colonial Manila. The historical context of street use provides potential constructs and concepts that would lead to improving street space. The premise is that due to a similar monsoon-based climate and forest environment origins, even with a contrasting development of street urban form, there is still an underlying similarity with respect to the use of street space in both Edo and Manila. In-depth discussion centers on the sociology of street space as well as street user behavior examining in detail group attributes, individual attributes and user groupings to provide us proof of the presence of street culture brought about mainly by its users and the potential of reviving such culture to make it conducive for street use. Analysis will dwell on the significance of attributes, their level of similarity or dissimilarity as well as their frequency of occurrence and how the information may influence street space design.

1. INTRODUCTION

1.1 Background

As early as 1961 Jane Jacobs expressed the importance of the network of streets and sidewalks in accommodating various functions as well as serving as a vital organ in city development. She also stated that streets serve many purposes aside from carrying vehicles while the pedestrian part streets, or sidewalks, serve many purposes beside carrying pedestrians. This rationalizes the presence of various elements found within Asian sidewalks. This also demonstrates that planning and policy settings in most Asian cities that target their clearance are not the most optimal solutions. In 1995, the Bangkok Metropolitan Authority (BMA) and Rattanakosin Conservation Committee instituted regulations to sanitize the city by clearing out local people and banning street traders and hawkers. The end goal was to reclaim its networks and creating a scenic vista within its urban space. This attracted a lot of protests from the academics and stakeholders alike asserting that hawkers are not alien elements within the Bangkok landscape. They were the original occupiers in the area given that prior to road building a floating market teeming with hawkers existed on the river opposite it. Since the 1890s, hawkers merely moved onto land to form a land-based *yarn* in accordance with historical settlement trends in Bangkok (Askew, 1996). In the same manner in 2002, Metropolitan Manila Development Authority (MMDA) Resolution No. 02-28 was passed which considered sidewalk activities, other than walking, as prohibitive acts such as vending or selling, doing house chores and even the use of sidewalks for plants, trees and plant boxes,

among others. In addition, A logo stating 'sidewalks are for people' are all over the Metro. But the question is, 'who constitutes the 'people'?'

A comparative study of access ways has shown that a similar sociological reaction results even with diverse morphological development brought about by different socio-cultural influence (Mateo-Babiano and Ieda, 2005; 2007). For example, street user behavior tends to replicate traditional village interactions and communications along access ways such as can be seen along access ways in various Asian settlements such as the *kampung* in Indonesia, *barangays* in Manila and *sois* in Bangkok (Mateo-Babiano, 2007). The streets of Bangkok still serve as a social arena for a very rich street life and *sois* are areas where people live recreating the village (Askew, 1996).

The non-movement component of walking (Mateo-Babiano and Ieda, 2005; 2007), derived from the premise that sidewalk street users undergo both movement and non-movement behavior when they travel, is part and parcel of the Asian street culture. The use of streets for non-movement activities is common in Edo-period Tokyo and colonial Manila. This encourages the emergence of small-scale, multifunction spaces. The presence of social spaces manifests the collective attitude fostered by the need for group acceptance (Figure 1). Asian cities, therefore, entails a different approach to sidewalk management and improvement which takes into consideration the diversity in street use and current applicable practices in developed cities as potential tool to encourage behavioral change.
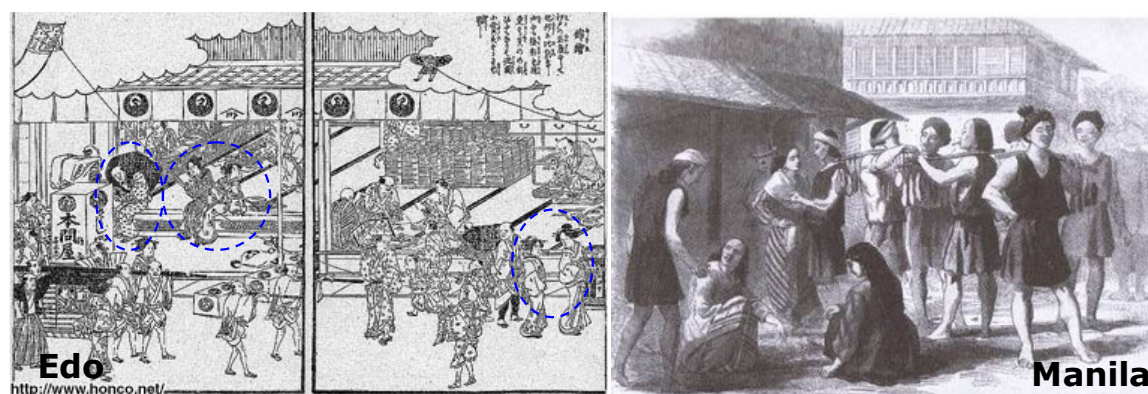

Figure 1. Non-movement behavior in both Edo and Manila.
Source:

1.2   Objectives
This paper aims to conduct an overall analysis of the behavior of street users in the context of Edo period Tokyo and colonial period Manila to present opportunities to influence contemporary street space design and improvement of a city's sidewalks.

1.3   Methodology
The study utilized pictorial representations to complement the extensive review of historical literature to better understand sociology of street use. Visual analysis of pictorial representations of Edo and Manila streets proved practical in deriving empirical insights from a historical and socio-cultural perspective. This helps strengthen the concept of a unique Asian street culture. Visual representations serve as snapshots of merchant culture, everyday life scenes, social interaction and highly populated destinations. Selection of archival materials was based on two criteria: (1) portrays street life and (2) reflects human-scale perspective. For Manila, 65 archival materials in the late colonial period mostly done by

foreign artists were considered while for Edo, a total of 145 archival visual media composed of Hiroshige's late Edo *ukiyo-e* (woodblock prints) and *Edo meisho zue* (famous places of Edo). Direct observation of the social attributes (i.e. user attribute, group attributes and use groupings) was then conducted and indicated in the frequency distribution graphs.

The rationale for choosing the two case cities are as follows: both are Asian cities, have similar geographical makeup, archipelagic and with similar indigenous beliefs related to the forest. The main difference lies on the level of external (Western) influence which led to the diversity in the socio-historical conditions between the two cities. Edo was under seclusion policy for 250 years, constraining the physical development of the area to concepts developed within the country while the Philippines had been subjected to urban planning laws and regulations under Spanish colonial rule, and thus, exemplifies a colonial city.

1.4   Review of Related Literature

The study on streets leads us naturally into two main themes: the study of the street environment and street use. *Context* refers to its morphology in relation to the study of form and shape of settlements to help determine local patterns of development and processes of change (Carmona et al, 2003). On the other hand, *use* refers to street space sociology. Sociology of the street discusses the way space is utilized by its users. For example, streets may serve as utility space such as to allow efficient movement or can be used as communication space to encourage socialization amongst its users.

In the conversion of natural space into a social phenomenon, the pedestrian's role is to dictate boundaries and attach meanings (Gans, 2002). This makes the pedestrian the most important player within the transport system. At present, a pedestrian is defined as a person who travels on foot which implies that the activity that pedestrians engage in or are concerned about is walking. As a result, pedestrian transport studies worked on the basic assumption that pedestrians are moving entities. However, pedestrians have other physiological or psychological needs which would compel them to stop or rest. In such a case, there is a change from a moving (kinetic) to non-moving (static) state. Some examples of the latter include: stopping temporarily to talk to a friend one has met, sitting on a bench to rest or stopping to buy food from a sidewalk vendor. Studies by various researchers such as Kamino (1979), Funahashi (1979) and Moudon (1997) have argued that effective mobility does not solely constitute movement, but non-movement as well. Thus, the consideration of both moving and nonmoving states may increase the overall utility of walking. And in incorporating other factors such as environmental, physical and cultural may contribute towards pedestrian overall satisfaction.

In previous analyses of pedestrian behavior, it was assumed that pedestrians exhibit similar behavior to that of vehicles (Highway Capacity Manual, 2000). It is assumed that pedestrians travel in a linear path, faster speed indicates efficient flow, more people to a degree indicates congested condition, thus, provides disutility to pedestrians. This is not an accurate assumption since pedestrians exhibit a rather complex movement patterns such as the tendency to swerve when encountered by an obstruction. Furthermore, given an option on the routes to take, they tend to be more flexible and choose their routes based on utility, previous experience, or out of habit. In general, it would be harder to measure pedestrian walking characteristics if the tendency for non-movement would be considered such as walking in combination with waiting and resting. But Funahashi (1979) goes on to emphasize the importance of considering natural human activities especially in the design of pedestrian facilities. When considering pedestrian behavior, the non-movement component is as

important as that of movement. According to Funahashi (1979), Rapoport (1987) and Kamino (1979), effective mobility depends on the consideration of both movement and non-movement. Encounters or exchanges strengthen the point that streets serve not only as access space but also carry a variety of non-walking functions which is termed as non-movement activities or behavior. Non-movement spaces emerged as a result of individuals such as pedestrians who engage in non-movement behavior (i.e. sitting, waiting, chatting, to name a few). However, there is a lack of research on non-movement behavior.

2. FINDINGS

2.1 Visual Contact
One hundred percent (100%) of surveyed Edo pictures indicated that the subject (Edo street users) never looked directly at the observer (artist). This indicates that visual images reflected a candid view of Edo streets (see Figure 2a). Street users were captured in a state of activity and looked at some part of the surroundings or in animated conversation with each other. In contrast, more than 50% of pictorial representations of Manila illustrated people looking at the perceiver (Figure 2b). The actors are looking at the artist, in essence, posing for the artist. The artist was always in constant communication with its subjects.

Figure 2. a) 50% ++ indicate that people were looking at the observer
This illustrates the relationship between observer and observed in a) Edo and b) Manila.

This brings about the implication of 'gaze' to Japanese society wherein eye-to-eye contact suggested involvement and considered disrespectful. This is differentiated from Manila wherein eye contact suggested willingness to interact or socialize. Moreover, in Edo, noise is often associated with visual noise. And given its high population density and the high premium placed on space, privacy could only be attained through temporal (or time-based) rather than spatial segregation. This in turn influences street furniture provision wherein semi-fixed furniture is more appropriate for Manila while in Edo, it would be desirable to have non-fixed furniture provision. Spatial ordering has an important implication on non-movement space. The design of Manila streets should often follow physical ordering while for Edo, the more appropriate one should be subconscious ordering.

2.2 Sociological Context of Street users in Edo and Manila
An in-depth study on the sociology of a given space provides a deeper understanding of its users since a group's beliefs and views show how they perceive the world, portrays their life's outlook, their cultural predispositions, their social relations and codes of behavior (Jocano,

1997). Street space sociology results from the interaction of individuals within a given space creating shared knowledge and meaning which generates a common street culture.

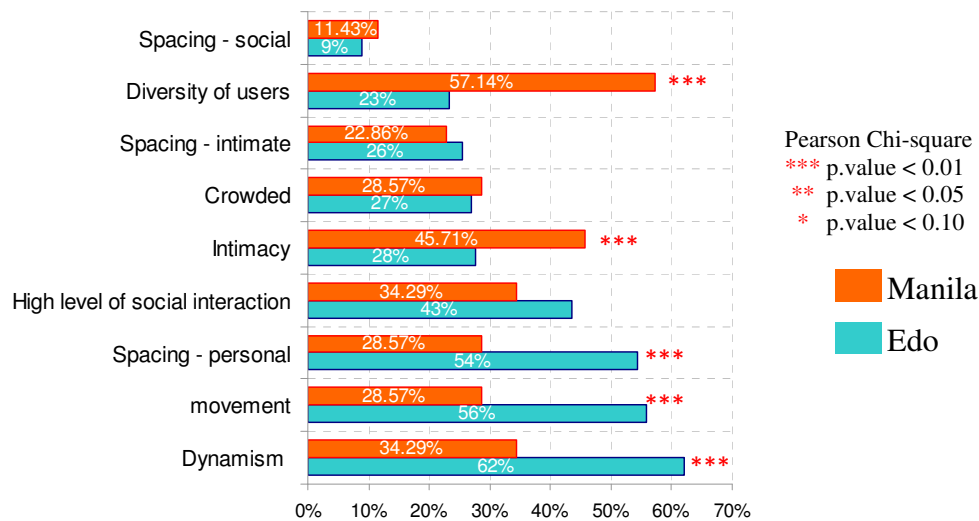### 2.2.1 Sociological Context of Street users in Edo and Manila

Figure 3. The graph illustrated the comparative results of the group attributes of street users.

A high occurrence of interaction and movement is implied in both Edo and Manila's visual representations (Figure 3). The difference lies in the type and level of interaction. While dynamism (Manila, 34.29%; Edo, 62%), movement (Manila, 28.57%; Edo, 56%) and personal spacing (Manila, 28.57%; Edo, 54%) among street users were suggested in Edo's representations, intimacy (Manila, 45.71%; Edo, 28%), user diversity (Manila, 57.14%; Edo, 23%) and high level of social interaction (Manila, 34.29%; Edo, 43%) or involvement were reflected in Manila's streets. There were congruent results in the following attributes: intimate spacing (Manila, 22.86 %; Edo, 26%) and crowdedness (Manila, 28.57%; Edo, 27%).

Figure 4. Edo: quick interaction and socialization, involvement is superficial; Manila: more intimate interaction and socialization as body language indicates full attention.

Social interaction and communication was present in both cities subsequently became more important than walking. To a degree, pictorial representations and archival photos show that street users in Edo were always in a certain degree of interaction, often they are in an intimate and animated conversation. An actor's body language is generally focused on the person beside him or her. Also, people are usually depicted in pairs or groups rather than alone. This

reflects the social attitude of both Edo and Manila street users (Figure 4). Edo street users are reflected in a diagonal position and tacitly understood to be in the act of movement while Manila's street users are illustrated as in an upright position generally involved in interaction with other street users (Figure 5). Temporary stops in Edo are quick and short while in Manila street users seem more involved with each other and stops seem to be longer and more intimate and depicted as having a more laid back existence.
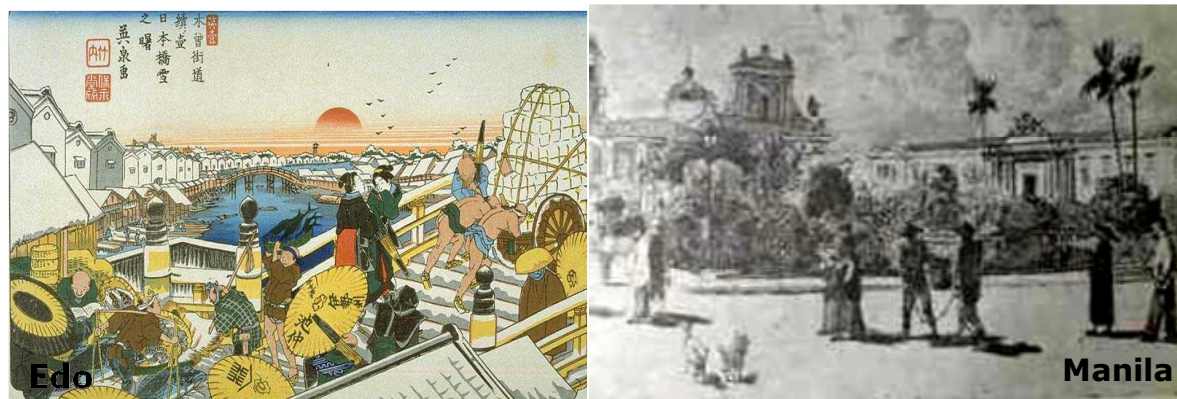

Figure 5. a) Edo: leaning or bending implying dynamism and on the move; b) Manila: people are often illustrated upright implying slower movement and tendency to loiter, reflects a laid back existence.

2.2.2 Street user Grouping

Socialization and the need to belong to a group have become general themes in the pictorial representations which reflected the agrarian roots of both the Philippine and Edo societies. Agrarian societies were organized along tribal kinship patterns which dictated communal cooperation. The social configuration reflected an extended family which comprised the institutional and cultural fabric. Similar to the Japanese society, social acceptance and group membership remain central to the way Filipinos think, believe, feel and act (Jocano, 1989; 1997). As such, social norms promote social relationships such as the respect for elders, deference to superiors, and kindness or tolerance to underlings (Andres, 1991; Engholm, 1991; Roces & Roces, 1985). *Pakikisama* is derived from the notion of community *(bayanihan)*, fostering cooperation *(pagtutulungan)* through a sense of togetherness.

In Japan, men in the same craft lived together in the same quarter of the town, just as street-names in old cities in Europe indicate what they did there. In Japan, the authorities are said to have encouraged if not required this grouping, to facilitate control. The craftsmen in a town also had their associations or 'guild' to supervise their standards and act as benevolent societies.
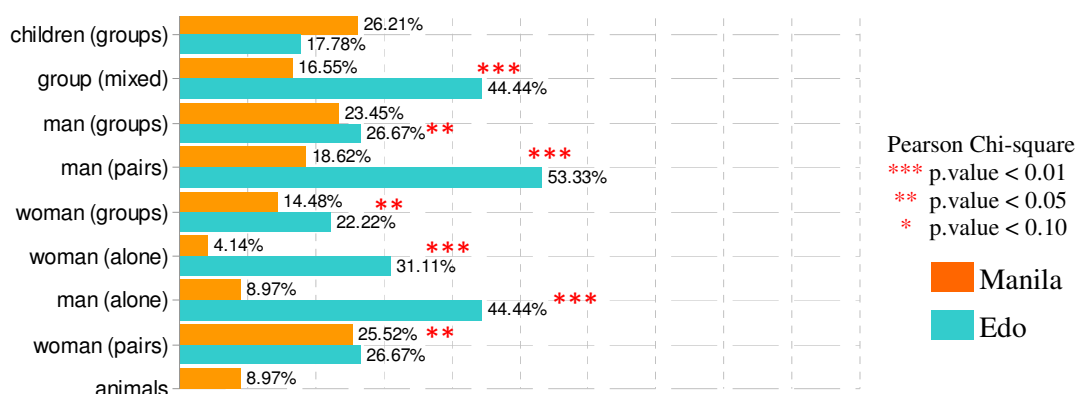

Figure 6. Comparative analysis of street user grouping.

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2.2.3 Street user Grouping

Findings of the analysis of pictorial representations show that street users tend to move in pairs or groups rather than individually. The latter was often observed in Manila. In Manila, men in pairs (53.33%), man walking alone (44.44%), and a woman walking alone (31.11%) and mixed groups (44.44%) are more commonly observed whereas these variables were rarely observed in Edo (Figure 6). Interestingly, groupings were more homogenous in Edo's case with women usually together with other women while men were with other men. Alternatively, only those that implied a family had a mixed grouping of man, woman and children in Edo (Figure 7).

Figure 7. Street users tend to move in pairs and groups in both Edo and Manila.

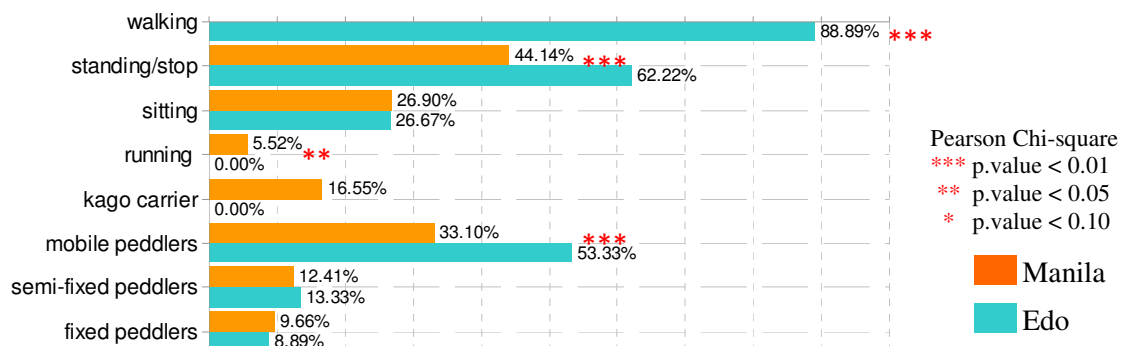### 2.2.4 Street user Grouping and Activities along Streets

Figure 8. Street activities and uses in Edo and Manila.

There is similarity in street user behavior albeit in different degrees within Edo and Manila's streets. In terms of user activities (Figure 8), the most common use was for: walking (Manila, 88.89%; Edo, 64%), standing or stopping (Manila, 62.22%; Edo, 44%), and vending (Manila, 53.33%; Edo, 33%). Similarly, Manila vendors were often fixed and semi-fixed rather than moving. As an example, in Edo streets peddlers seemed to move around while in Manila they tend to occupy a specific spot which implies that space flexibility is requisite in Edo while in Manila, semi-flexible spaces are more appropriate. Figure 9 are pictorial representations illustrating vending activities in both Edo and Manila.

Figure 9. Vending and peddling in both Edo and Manila.

2.2.5 Individual Attributes

Individual level analysis is also important as it points out common cognitive frames to further understand and interpret pedestrian behavior. It can reveal motives, goals, mechanisms, emotions and classificatory information that may prove useful in defining attributes of an individual actor to generate behavior. Edo's street users are captured in a dynamic posture contrasted with the generally vertically-positioned street users in Manila. For Edo, individuals tend to have higher comfort zone to density, field dependent, and portrayed in a diagonal position (Figure 10).
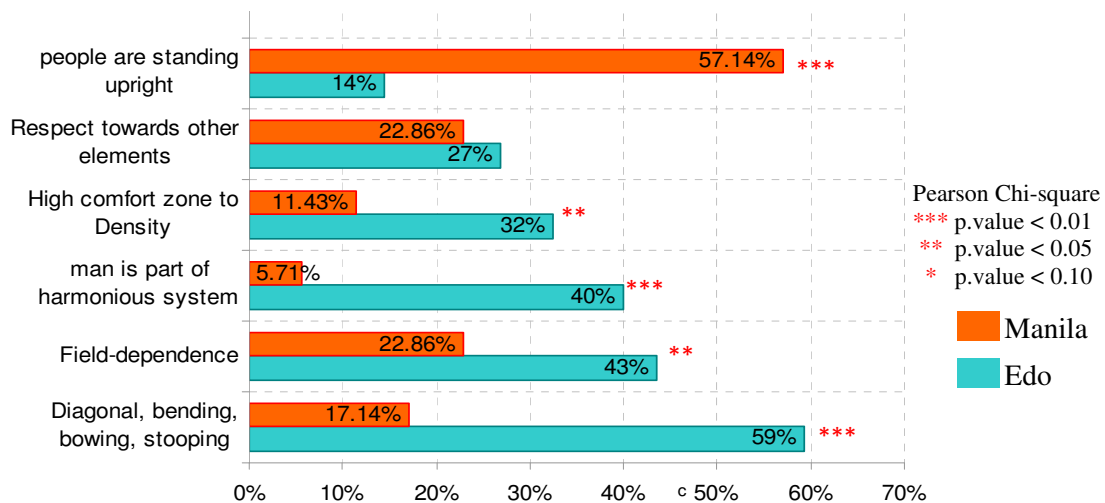

Figure 10. Results of the comparative analysis of individual attributes.

High field-dependence (or the attribute of considering the environment as points of references) can be observed in Edo pictorial representations and to a lesser extent, in Manila. Edo streets were typically oriented to natural elements such as Mt. Fuji and in a similar manner, Manila streets were orientated towards the church and central plaza (Figure 11). The latter was already a combined result of a strong Spanish-oriented built environment. As such, the need for landmarks, whether natural or built, becomes an important element to be found in both Edo and Manila streets. Moreover, natural elements appear in 40% of the pictorial representations of Edo. Edo inhabitants consider themselves as part and parcel of the environment. Thus, they tend to live symbiotically with the natural environment.

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Figure 11. Orientating points for both Edo (left) and Manila (right).

Given the intrinsic relation between nature and daily life among Edo inhabitants, greens should be an important element along streets. Natural elements are not just environmental needs but actually based on the psyche that nature is important in the design.

Tolerance to density is high in Edo. While Edo's population level was at par with Western cities within the same time period, its density was much higher. This physical condition has allowed high level of socialization and higher tolerance levels towards crowding. This phenomenon has encouraged a different type of sensory adaptation to indicate. For example, division among activities tends to take psychological ordering (instead of physical) or segregating activities according to time. To define private sphere, *shoji* screen (transluscent paper screen) was sufficient to provide visual blocking but not auditory.

2.3   Non-Movement Behavior in Edo and Manila

The concept of non-movement within Asian streets grew out of the realization that in order to provide sustainable spaces, it is necessary to consider the various behaviors exhibited by the pedestrian and other street users on the streets. This means considering streets not only as distribution but more importantly as communication networks. In such a case, movement space is translated into non-movement space. It is uncommon to find specifically allocated spaces for non-movement activities in the Asian street space. Non-movement space and activities tend to be demand-driven wherein emergent spaces resulted from the consideration and provision of street users' needs. Non-movement behavior has played a significant role in the evolution of Asian or oriental space. Thus, it is within this premise that the perceived non-movement behavior of Asian pedestrians is examined.

A large proportion of pedestrian non-movement experience and social interaction occurs on the sidewalk. Comparing non-movement in Edo and Manila, it becomes necessary to look at the attributes which influence behavior. The social character of Asian spaces encourages interaction, communication and socialization among individuals. While there is an implied high level of social interaction that occurs in both street spaces, the level of intensity differs. Dynamism is implied in Edo's representation while more intimacy and involvement is implied in manila streets. Dynamism is captured in Edo street users in the form of skewed or diagonally positioned subjects who are presently in a stop position but in the act of moving suggesting a short and quick non-movement activity. On the other hand, Manila street users are illustrated to be in an upright position but involved in longer, more intimate interaction with other street users. This characterizes heightened intimacy and involvement in Manila

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subjects. Moreover, the observation reflects the laid back character of Manila subjects compared to their Edo counterparts. Non-movement behavior of Asian pedestrians has the tendency to be vague and blurred given the lack of clear delineation and differentiation between nodes and connectors. This increases ambiguousness of spatial use. Street space is said to be perceived as part of the inside and no physical boundary exists between the private space and the public sphere. The creation of intimate pocket spaces is reflective of the blurred boundary present within Edo and Manila streets. In relation to this, providing intimate, pocket spaces can flexibly carry various activities such as pocket parks, benches, meeting points to reflect the need for socialization and reaffirms the blurring of boundaries between the inside and outside in an Asian space. The strong temporally-influenced non-movement, this then justifies the lack of physical ordering of spaces nor of activities. The boundaries between nodes and connectors are not concretely set. Non-movement behavior encourages subconscious ordering of spaces has been determined to exist in Edo while physical ordering of spaces is more common in Manila's pedestrians. Thus, Edo street furniture is not necessary while in Manila, street furniture would be useful if the aim is to encourage longer interaction within its streets.

Non-movement behavior imposes an equivalent spatial imprint and temporal imprint. Spatial imprint refers to the physical area occupied and the temporal imprint refers to the length of time occupied. These variables are necessary when considering the design of street space. Typically, related activities result in similar spatial imprints. However, the length of interaction defines the temporal imprints. Based from the visual representations, the implied intimacy and higher involvement of Manila subjects with one another translates into longer temporal imprint as compared to Edo subjects wherein the split-second interaction among its street users reflects a shorter temporal imprint. Non-movement behavior is captured in the spatial and temporal imprints of both cities with Manila's spatial imprint becoming fixed due to longer use and more involvement.

Non-movement behavior can be determined by the type and manner of social interaction. Assuming that Edo individuals tend to move forward and typically stop for a split-second temporal imprint, the form and orientation of its spatial imprint is reflected in Figure 12. The visual scope of individuals tends to make a 60° angle. For the interaction of Edo individuals, the resultant shape looks like an elongated parallelogram or rectangle while for the Manila interaction, the resulting shape looks like a rhombus or square. Manila subjects are often shown either in mixed groups, in pairs or alone, with the manner of involvement often reflected as being face-to-face to each other indicating higher involvement and in constant communication and interaction. As for Edo, groupings are more homogeneous, lesser instances of pairs and individuals walking alone.
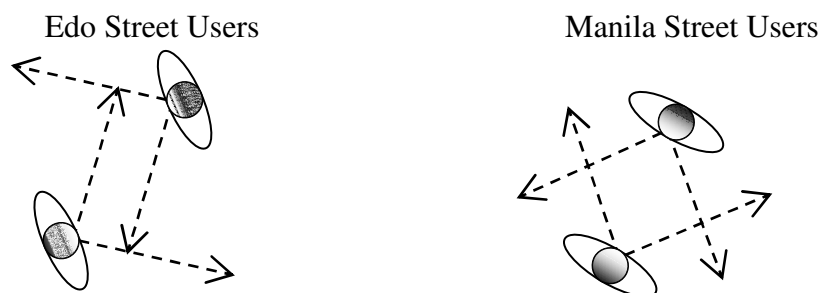

Figure 12. The figure illustrates the type of interaction of: a) Edo street user at left; and b) Manila street users at right given that there is more implied involvement in Manila while higher dynamism in Edo.

Non-movement behavior is affected by scale. Large spaces create overwhelming emotion discouraging stops. Thus, structures should be scaled down to elicit a feeling of ease among its users. Visually, the street scale should give the impression of compactness and provide visual cues given the interdependency of people on their surroundings. Edo and Manila streets reflect a compact scale encouraging street use in particular non-movement street use.

Non-movement behavior is justified by the idea of a pause within the Japanese psyche which is often referred to as *ma*. The idea is not similar to multi-tasking rather active rest refers to utilizing time for all activities leaving no rest period. Even when resting, it would be typical for Japanese to still fill in the rest period with some kind of activity. Take for example when one is on the train. Someone would still be reading or listening to music: Japanese pedestrians at intersections usually feel irritated to have to wait for so long. They become anxious. How the western individual looks at space as an empty entity while in the Japanese culture, space is given proper significance; importance of pause; in Japanese conversations, a pause does not connote uneasiness as what 'silence' brings to ones western counterpart.

The temperate Japanese season influences the temperament of Japanese individuals. The changing season tends to make people more aware of the limitations posed by the changing climate (climatic limitations) and tries to be in a hurry and make the most of what he can do within a given time frame. In contrast, tropical countries are not subjected to harsh climates nor changing seasons thus tends to become more laid back. This has implications on pedestrian behavior, especially on NMB. Laid back lifestyle creates dislike for stress, promotes easy life takes life easily and slower movement. Stops and pauses tend to be longer and intimate. Degree of involvement becomes higher as shown by the angle made between two people or in mixed groupings.

3. CONCLUSION AND RECOMMENDATIONS

In the quest towards achieving an overall effective street space within Tokyo and Manila, the task becomes two-fold. On the one hand, it should try to discover a distinct street tradition through the identification of local street histories and how such knowledge could provide insights into user attributes; on the other hand, it should also consider the street user as the pivotal influential factor in street design and management through the examination of the two components of street user behavior, namely: movement and non-movement component. The latter has been defined as an emergent function of movement which is significantly influenced by socio-cultural factors. Thus, it is in the non-movement behavior that the salient difference in space perception and use between Asian models and its Western counterpart may be concretely differentiated. Moreover, the consideration of non-movement in the design and provision of spaces reflects a more holistic and sustainable approach towards discovering a truly distinct space and use within the two case cities. Socio-cultural history and indigenous knowledge of a group are strongly correlated with its ecological attributes such as geography, climate, ecosystem, vegetation, among others.

The opportunity to increase sidewalk sustainability requires the reconsideration of non-movement activities in the design of such space. The study of non-movement behavior provides us with the knowledge that the Asian space is temporally-dictated, thus, requires to be flexible enough to accommodate various activities which are conducted at different times of the day. Morning activities differ from afternoon activities but are accommodated in one single space which reflects the vertical quality of Asian space that has to be taken into

consideration when designing sidewalks. This may imply the need to provide for pocket-size activity space within the sidewalk which can accommodate a multitude of activities.

Looking at non-movement activities which are commonly conducted within Edo and Manila streets are: peddling, chatting or talking, stopping, sitting, drinking, and eating. One of the main elements found on the streets was the ubiquitous presence of street vendors. Its higher occurrence in Edo streets as captured in the various *ukiyo-e* reflects that vending and peddling have historical roots. In Edo, street stalls or *rotenshō* are set up to sell miscellaneous articles for daily use typically on busy street corners appearing everyday in regular locations. Thus, there is a need to reinvent the role of vendors given their rampant presence on the streets. Clearing them from the sidewalks is not the appropriate solution from a socio-cultural and historical perspective. It is important to evaluate how their presence brings relevance to street culture. Furthermore, there is a need to ensure the provision of social spaces and acknowledging and integrating the bazaar or 'pasar' culture into the street environment.

Spatial ordering is also an important implication on non-movement space. The design of Manila streets should often follow physical ordering rather than subconscious ordering. The latter is more appropriate for Edo. The strong Spanish acculturation has left its imprint on the physical configuration of Manila which should be difficult to change, both sociologically and physically. Thus, it becomes important that streets be designed to consider sociological needs brought about by forest-based influence. In Edo's case, people tend to dominate the whole street, lesser densities; peddler presence is more prominent; people tend to be in pairs or groups (not alone); segregation is blurred but movement at center non-movement at sides; unpaved street; *noren* wraps around commercial establishments; pedestrian scale; no apparent lighting; signage faced pedestrians; streets were narrow.

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