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Spatial Re-Arrangement for Middle-Low Income Group of Vendors
- Case of Malioboro, Yogyakarta, Indonesia -

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Vendors usually tend to occupy pedestrian ways in such that they cause spatial conflict with pedestrians and public interests. Formulation of the basic size unit of vendors and its system is the focus of this research since it consciously addresses the spatial and physical aspects of vendors within limited spaces. This research aims to determine the factors influencing the basic size unit and the system of space of vendors. In-depth interview in this research is directed to see the spatial logic of space usage. It is supported by spatial remapping to include spatial measurement of vendors to formulate the spatial form and basic size unit of vendors. The analysis of spatial-link of basic size unit of vendors resulted the vendors basic size unit system, which show the effective space for vendors. The result of the research show that the basic size of vendors space, which resides in street-side is 120x130x150cm (A2) meanwhile in case of shop-side vendor is 120x150x110cm (B2). The pair of basic size unit as A and B in one segment of shop develops a system of vendor space unit in such that the re-arrangement of the setting of vendors should follow the vendor spatial system unit. It will cope with overcrowding in this area to develop the quality of urban liveliness.

Keywords: Vendor, Pedestrian, Shopping arcade, Street

1. Introduction
The presence of vendors are a common phenomenon in city's life, mainly in relation to the matter of income for middle-low income people, which is related to informal sector. The vendors have formed the typical urban spaces and street scapes in Asian cities. Many such studies have been conducted in Asia region which refer to the unique urban liveliness since it's existence relates to human interaction and communication. Among others Deguchi et.al (2004) analyses of 'Yatai' in Fukuoka City, Japan in relation to typology of temporary setting of street and parks, the properties of 'Yatai' as forming one type of temporary setting and its management system. Spatial features and existing conditions of 'Yatai' stands out as a unique piece of more attractive public streets. He has since begun to extend such analysis to human activities urban setting. Additionally, there are also a number of studies of street vendors based on analyses of city cultures in the social-economy relation files. We find more effort to study about vendors such as Su-Shin Lee et.al (2004) treatment of night market and street vendors in Taichung, Taiwan. He has argued that spatial conditions of the night market vendors differ depending on the time of day and that the vendors adjust to the structure and size of local size. Meanwhile Jung-Hyung Lee et.al (2004) research on characteristics of street vendors in Seoul, Korea preferences of the possibility of using private street vendors that occupy the public walkway. He found that the private use of street vendors can be maximized provided a management system that considers time and location is properly established. Most street vendors studies mentioned above represent a typical street vendors where their activities happens out on-street or on pedestrian ways as their own territory. Different from those cases above, vendors in Malioboro-Yogyakarta, Indonesia have their own character since the vendors occupied a private space along the shopping arcade (off-street) which actually belongs to the shop keepers. Thus, the usage of private space for public interest would be remarkable to be discussed in this research. The earlier studies focused primarily on the vendor in Malioboro, Yogyakarta has been conducted by some scholars. Hendrawan et.al (2002) studied of setting of vendors in relation to its territory whereas Sofyananton et.al (2002) also studied about the setting of vendor but the emphasizing of the research refers to develop the visual appearance of vendors based on the system of vendors. This research mainly is intended to address of size and modular of vendor’s space issues and to begin to fill some of the gaps in our knowledge about the vendors. This research does not only provide some insights into the formula of space for vendors but...
also to see how the spatial re-arrangement of vendors in Malioboro will appear to permit successful coping with crowding. It is noteworthy that managing the space and people (visitor and vendor) permits individuals to cope with overcrowding in city center area. Consequently, it could develop the quality of urban liveliness.

It is noted that in Yogyakarta there are at least 4,862 street vendors where 71% of them conduct their business in such 5 districts as the District of Danurejan, Gedongtengen, Gondokusuman, Gondomanan and Jetis which all of the districts (in term of judicial boundary) administratively belong to the city center of Yogyakarta which refers to Malioboro. In average the daily gross income of each vendor is about IDR 200,000 or equal to US$ 20.00. The total assets of vendor's trading can reach nearly IDR 650,000,000,- per day or US$ 65,000 per day (Kompas Daily, March 2008). In detail most of the vendors conduct their businesses in those 5 districts, which are located at the street segment of Mangkubumi, Malioboro, and Diponegoro as the centers of street vendor generators in Yogyakarta. Yet, the concentration of the vendors is still in the segment of Malioboro and Alun-alun Utara (North Square). The total street vendors in these areas are 1,768 units or 36% of the total street vendors in Yogyakarta, whereas if it is counted merely in Malioboro street, the total vendors are 1,625 under the management of 4 groups of vendor's association, while in the North Alun-alun there are 143 vendors. This total number represents the dynamic of economic life of the city of Yogyakarta, mainly which is supported by middle-low income people.

The limitation of space in the area of Malioboro street for vendors is necessary to be noticed mainly in order to formulate the regulation for the vendor, which is directed to set the suitable space in terms of basic size unit and basic spatial system. It is aimed to formulate the system of space for the vendors in such that they can conduct their business easily and simultaneously offer the customer to conduct their transaction better than before. It is known that in general there are two types of space of vendors in Malioboro, as space along the arcade (mostly located at the west side of Malioboro) and space in the pedestrian space (located at the east side of Malioboro). The vendors which refer to the non-food vendors and who reside along the arcade are necessary to be noticed in the research, since they become the majority of vendors in Malioboro. In reality, the number of such vendors tend to increase time by time, while the spaces itself spatially do not change. It drives this research focus in spatial re-arrangements of the Malioboro’s arcade as a suitable place for the non-food vendors. This situation also drives this research into two main strategies of research which refer to the research question such as (1) how to determine the factors of the basic size unit and system of space of vendors in the arcade of Malioboro?; and (2) how to re-arrange the setting of vendors in line with basic size unit and system of space of vendors along the arcade of Malioboro to gain successful coping with crowding to reduce the crime rate?

2. Research Method

The indepth interview for the vendors is directed to see the spatial logic of space utilization. It is supported by spatial remapping to include spatial measurement of vendors to see the tendency of spatial form and size of vendor's space. The spatial-link of vendor's space analysis resulted the basic size unit and system of space of vendors, which showed the effective space for vendors. Four main stages become the significant aspect in data compilation and in obtaining the valid information from the primary data resources to include the data analysis. The four stages of research as follow, Stage 1a:

Preparation of the research tools such as interviews guidelines for the stakeholders such as person in charge from (1) government officers, (2) informal leaders, (3) formal leader, (4) vendors and (5) customers or pedestrians.

Stage 1b:

Preparation of the spatial basemap of Malioboro which contains spatial setting of vendors, pedestrian ways, spatial arcade, street furniture (benches, vegetation, bus stop, street lighting, hydrant, traffic signal, banner/flag stick).

Stage 2:

Study on spatial distribution and pattern of vendors in both west and east side of Malioboro, has been conducted as a spatial mapping and spatial measurement. It contains the collecting data through (1) field survey of the number of vendors in each internodes of the street
Spatial Re-Arrangement for Middle-Low Income Group of Vendors

(2) field survey on the spatial dimension of vendors (3 Dimension), (3) field survey of the typology of commodity of the vendors, (4) field survey of the time budget of the vendors in conducting their business, (5) field survey of the place or spatial setting of the vendors.

On the other hand, in obtaining the qualitative data related to socio-cultural aspect, some gatherings with the stakeholders is conducted to see the actual ideas of stakeholders. To put the last touches on data validation the interview will also carried out to ensure the valid data.

Stage 3:

Data analysis is conducted by making crosstab of spatial and non-spatial data to see the relationship between spatial and non-spatial data. In this stage, it is known that the data analysis connotes the information of who, where, when, how the vendors use the place. Intensive discussion among research members becomes the main program of research process to formulate the basic size unit and system of space of vendors as the goals of the research.

Stage 4:

The research results are discussed in some forums such as (1) dissemination of research to the community and (2) promoting the research results to the local government.

3. Analysis

3.1 Profiles of Vendors

Vendors in Malioboro make a group of vendors into 4 (four) associations namely Association of (1) Handayani, (2) Paguyuban Pedagang Lesehan Malioboro (PPLM), (3) Pemalni and (4) Angkringkan Sorjan. There are 851 non-food vendors (Fig.1), which are distributed into 6 segments of arcade both in west-side and east-side of Malioboro, where 90% of them are Minang ethnic from West-Sumatra (Table1). Fig.2 illustrates the distribution map of vendor in Malioboro.

3.2 Street-Side Vendor

The majority of non-food vendors as the focus of this research, occupied in the west-side of Malioboro and they conduct their business along the shopping arcade (Fig.3). There are 332 vendors reside in the street-side of the arcade, which in terms of spatial point of view, there are such two major types of street side vendor namely A1 and A2. The size of world standard of vendor is in the order as width-height-depth in which further discussion will be used as pointed the size of vendor. So, the size of A1 refers to the width:150cm; the height:90cm and the depth:130cm or 150x90x130cm whereas the size of A2 refers to 120x130x150cm. For further step, the analysis of vendor should be related

### Table 1 Distribution of Vendors in Malioboro

<table>
<thead>
<tr>
<th>Type of Vendor</th>
<th>Position</th>
<th>West Side</th>
<th>East Side</th>
<th>Total</th>
<th>Total Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Food Vendor</td>
<td>Segment 1</td>
<td>49</td>
<td>10.5%</td>
<td>71</td>
<td>33.81</td>
</tr>
<tr>
<td></td>
<td>Segment 2</td>
<td>50</td>
<td>4.84%</td>
<td>71</td>
<td>33.81</td>
</tr>
<tr>
<td></td>
<td>Segment 3</td>
<td>170</td>
<td>23.40%</td>
<td>16</td>
<td>7.62</td>
</tr>
<tr>
<td></td>
<td>Segment 4</td>
<td>171</td>
<td>26.00%</td>
<td>63</td>
<td>30.10</td>
</tr>
<tr>
<td></td>
<td>Segment 5</td>
<td>99</td>
<td>15.44%</td>
<td>47</td>
<td>22.38</td>
</tr>
<tr>
<td></td>
<td>Segment 6</td>
<td>122</td>
<td>19.05%</td>
<td>4</td>
<td>1.90</td>
</tr>
<tr>
<td>Food Vendor</td>
<td>Segment 1</td>
<td>0</td>
<td>0</td>
<td>51</td>
<td>25.53</td>
</tr>
<tr>
<td></td>
<td>Segment 2</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>Segment 3</td>
<td>0</td>
<td>0</td>
<td>42</td>
<td>21.21</td>
</tr>
<tr>
<td></td>
<td>Segment 4</td>
<td>0</td>
<td>0</td>
<td>21</td>
<td>10.54</td>
</tr>
</tbody>
</table>

Fig. 1 Non Food Vendor (Left) and Food Vendor (Right)

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to its size analysis. It is noteworthy that the height of vendors space tend to be fixed dimension as 130cm. This height is necessary in such that the pedestrian can catch the sight of the shops. Based on the survey, it is indicated that the depth of vendors also to be fixed dimension as 150cm. It is aimed to provide a space for pedestrian to pass through the arcade. The width of vendor-space is diversely arranged into various number of width according to space available between the two columns of shop. Along the arcade, the width of vendor’s space extend from 60cm into 210cm. The lowest percentage of width of vendor’s space is headed for the width of 90cm (0.57%) and 210cm (0.57%), whereas the highest percentage of width-dimension is headed for the width of 150cm (86.93%). The four width of vendor’s space that tend to become visible are 60cm (1.99%), 120cm (2.84%), 180cm (7.10%) and 210cm (0.57%). The analysis of the width of vendor’s space indicated that the
width of 150cm becomes the major width of vendor’s space which resides along the arcade. But it should be noted that the width of 150cm cannot be divided by the width of 60cm as the minimum width of the vendor’s space. It means that the width of 120cm becomes the exact size for the vendor’s space and it simultaneously becomes the basis of size of vendor’s space to be used as the most effective space for their business. The selection of the width of 120cm which belongs to 2.84% of total vendors cannot be separated from the fact that this width can be divided by 60cm, that as mentioned above it belongs to the minimum width of the vendor’s space. This phenomenon concerns on how the width of 120cm should be allocated for vendor spatial usage. It prompts the spatial policy for the vendor that the usage of A2 unit of vendor’s space, which refers to the size of 120x130x150cm, should become the typical basic unit of space for street-side vendor.

3.3 Shop-Side Vendor

It is found that 309 vendors occupy the front of the shop along the arcade of Malioboro, which for further discussion it is called shop-side vendor or B unit of vendor’s space. The shop-side vendor is diversely arranged into various number of the unit of vendor space, which can be distinguished into five units. In brief, it can be described the size of shop-side vendor as follow, the size of B1 belongs to the size of width 60cm; height:150cm and the depth:110cm or 60x150x110cm; the size of B2 belongs to the size of 120x150x110cm and the size of B3 belongs to the size of 180x150x110cm. Meanwhile, the size of B4 belongs to the size of 240x150x110cm and the size of B5 belongs to the size 300x150x110cm. Different from the size of street-side vendor space, the height of shop-side vendor space tend to be fixed as 150cm and the depth to be fixed as 110cm. The width of shop-side vendor space is diversely arranged into various number of width according to space available which refers to the width of shop. Along the arcade, the width of vendor’s space in front of the shop extend from 60cm into 300cm. The lowest percentage of width-dimension is headed for the width 210cm (1.22%) whereas the highest percentage of width-dimension is headed for the width of 150cm (21.47%). The six widths of vendor’s space which tend to become such visible as follows 60cm (2.49%), 90cm (15.64%), 120cm (18.40%) and 180cm (4.60%), 270cm (2.54%) and 300cm (1.99%). It is noted that the highest percentage of the width of vendor’s space is 150cm. However, it is also noted that it does not correspond to the shortest width of shop-side vendor as 60cm. Similar to the analysis of the width of street-side vendor above, even though the width of 150cm tend to be dominant, it is noted that the width of 150cm of shop-side vendor can not be divided by the width of 60cm as the minimum width of the shop-side vendor’s space. It means that instead of the width of 150cm, the width of 120cm of shop-side vendor space in the arcade of Malioboro becomes the exact size for the shop-side vendor’s space and it simultaneously becomes the basis of size of shop-side vendor’s space to be used as the most effective space for their business. This phenomenon concerns on how the width of 120cm should be paid attention for vendor spatial usage. It also prompts the spatial policy for vendor who reside in front of the shop the usage of B2 unit of vendor’ space which refers to the size of 120x150x110cm should become the typical basic unit of space for shop-side vendor. It is noteworthy, however, that there is the smallest size of shop-side vendor as the unit of B1 with the dimension of 60x150x110cm, but it represents the only case which is occurred when the remains space is available. This is also caused by the fact that the other nearest dimension of 150cm is only the width of 120cm (18.40%) and this width can be divided by the width of 60cm as the minimum width of the vendor’s space. It means that the vendor tend to use the size of B2 rather than the other sizes. Table 2 illustrates the profile of vendor spatial size which describes the distribution of vendors size at six segments of arcade in Malioboro.

The illustration of the basic size unit of vendor mainly for both street-side vendor (A) and shop-side vendor (B) can be noted in Fig.4 below.

3.4 Vendor-Space System

Apparently, it is necessary to be noticed that the phenomenon of the basic size unit of vendor space as noted in Fig.2 shows that the size of both units (A2 and B2) are not only intended to provide a space for the vendor to conduct their business but also to provide a space for the pedestrian. Looking at this pair of spatial units of vendors, it is necessary to notice in the spatial-link point of view. As illustrated in Table 3, it is clear that the basic size of A2 (street-side vendor) tend to be a
Table 2: Profile of Vendor Spatial Size

<table>
<thead>
<tr>
<th>No.</th>
<th>Segment of Shopping Arcade</th>
<th>Variants of Width of Shop (range of idh 261 - 2500 cm)</th>
<th>Variants of Spatial Size of Vendors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vendor in Street-side (A)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S. Type of Size</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

A. Modul of Street Side-Vendor

![A2 modul diagram](image)

\[ A2 = (150 \times 130 \times 120) \text{ cm}^3 \]

B. Modul of Shop Side-Vendor

![B2 modul diagram](image)

\[ B2 = (110 \times 150 \times 120) \text{ cm}^3 \]

Fig. 4: Basic Size Unit of Vendor Space
Street-Side Vendor (A) and Shop-Side Vendor (B)

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Source: Stark, 2008
Spatial Re-Arrangement for Middle-Low Income Group of Vendors

Table 3 Distribution of the System of Vendor Space Unit in Malioboro

<table>
<thead>
<tr>
<th>Typology</th>
<th>Width of Shop (cm)</th>
<th>Pattern of Modular System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A1</td>
</tr>
<tr>
<td>1</td>
<td>261-360</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>361-480</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>481-600</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>601-720</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>721-840</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>841-960</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>961-1080</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1081-1200</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1201-1300</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1300-1440</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1441-1600</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1611-2300</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>2301-2500</td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey 2009

pair of the basic size unit of B2 (shop-side vendor) as a spatial system of vendor along the arcade of Malioboro. There are 13 (thirteen) groups of the spatial system of vendor unit mainly in Malioboro arcade (Table2)

To develop the understanding of spatial system of vendor unit mainly in the arcade of Malioboro, which is mentioned in Table3, it is necessary to identify the key element of the basic idea of spatial structure in the arcade which is bordered by the front-side of the shop in one side and the line of column of the shop on the other side. In this sense, the size of the A2 and B2 will be treated as an entity system, which is united by the similar basic width of 120cm. In addition, it can be understood that the basic ideas of system of vendor space unit is based on the width of shop and width of shop’s entrance as the dependent variable of system of vendor space unit mainly for shop-side vendor. The width of shop has a relation to the position of the column of building (shop) in such that together with ‘gate of shop access’, it also becomes the dependent variable of system of vendor space unit mainly for vendors who use space in between column of street-side of the arcade. The width of shop and the position of column becomes the key element of the basic spatial structure of the group of vendor. In this sense, group of vendors create a certain spatial pattern and it creates and has an order or pattern of space. In terms of the system of vendor space unit, it is noted that there is a tendency of the combination of some basic size of street-side vendors as A2 (120x130x150cm) and basic size of shop-side vendor as B2 (120x150x110cm)
to be one system of vendor space unit. The process of the system of vendor space unit is initially filled by A2 in the space between two columns. In this case the space in between two columns should remain a space in the distance of 100-150cm for giving the opportunity of the existence of the 'gate of shop access' mainly for the pedestrian who may passing through the 'gate' to enter the shop. The possibility of the other basic size of vendor is A1 (60x130x150cm) which is filled the space in between two columns in case there is an extra space.

In brief, the re-arrangement of vendors in Malioboro can, however be conceptualized as organization of two dependent-variables such as distance of two columns and entrance of the shop. There are the essential points to see the spatial order of vendor spatial usage.

The interesting point in the system of vendor space unit, inevitably turns into formula of space for vendors as follow;

\[ V = \frac{(C - N)}{60} \]

V: Total street side vendors
C: Space in between columns or the width of shop
N: Space 'gate of shop access' of pedestrian or the depth of shop entrance; the number of 60 is used as the smallest effective depth (cm) of vendors space

In brief, it can be concluded that the system of vendor space unit consists of two basic size of vendors space such as A2 and B2 with well defined link each other as a spatial-knit cluster. In other words, it can be formulated that A2 and B2 become dual vendors basic size unit. This system of vendor space unit emerges as the primary cell of modular unit of vendor’s group. As the primary cell, this modular unit has a role to provide a place for vendor in optimum space. This system provide a space for pedestrian who use the arcade for circulation access in Malioboro and simultaneously giving the opportunity to the pedestrian to enter the shop if necessary. In effect, there will be an effective space for vendor when they carried out their business. Thus, the system of vendor space unit has a significant role as terminal point of business as well communication network in business.

In giving more understanding about the spatial system of vendor unit, mainly in the arcade of Malioboro, it is necessary to discuss about the process of the establishment of the spatial system. The congested space in the arcade of Malioboro has resulted a problem about the limitation of space that may become the potential factor to construct the conflict between the vendor with the other mainly the pedestrian and shop keepers. Overcoming this condition, linked to retain their clarity and autonomy and in which space fits into the rest of social system. So far this social system supports the establishment of spatial system and it is accomplished by residing in spatial consolidation system where some vendors can reside together in the vendor spatial system unit. Fig.4 illustrates how the vendor set their space with using the vendor spatial system unit.

The analysis of the process of the establishment of the vendor spatial unit which illustrated above suggests that the space available in the arcade becomes a handy space for various pattern of group of vendors. It serves as an established space which refers to the effective space for conducting their business as is illustrated in Fig.5. Through the process of the establishment of vendor spatial system unit, the basic unit of vendor so called A2 and B2 are of special complimentary, which can be applied in various pattern according to the space available in the arcade. The implementation of the vendor spatial system can be notified in Fig.6.

The vendor spatial system unit, actually, deals empirically with such social interest that attempt to uncover the idea of spatial-knit cluster that is common practiced by the vendor. This spatial-cluster of vendor as their spatial system, actually, represents the idea of how they should be resided together put in order, in terms of doing co-operate activity and it puts in practice in many modes of social activities in between vendors and between the vendors and the pedestrian as a potential consumer of the commodity, which is offered by the vendor. So, it is not peculiar that in conducting transaction of their business along the arcade, there is no fixed price of all items of commodity. This condition can be arranged by creating the atmosphere of the compact arcade that is supported by implementation the spatial system of vendor (Fig.7).

4. Conclusion
It can be concluded that the vendor's space in Malioboro consist of two well-defined spaces such basic size unit as A2 which refers to the size of 120x130x150cm and B2 which refers to the size of 120x150x110cm with well-defined spatial system of vendors which link group
Fig. 5 The Fulfilling Space Process of Vendors in the Arcade of Shop in Malioboro to establish the vendor spatial system.

Fig. 6 Vendor Spatial System Unit Implementation Using the Basic Spatial Unit of Vendor.

Fig. 7 Comparison between the Existence and Re-Arrangement of the Vendors Spatial System.
of vendors as spatial knit cluster. As the primary cell, the spatial system of vendors has a role to provide an effective space for both vendors and pedestrians in which in the other words it becomes the basic physical features own dual function as private feature in the perspective of the vendors and public feature in the perspective of the pedestrian. This spatial system of vendors can create a better environment’s atmosphere within the congested space of shopping arcade of Malioboro since both vendors and pedestrian may have a clear separate domain which is differentiating between places for vendor and spaces for pedestrian. It provides an opportunity to reduce a crowd situation in the shopping arcade of Malioboro. On the other hand, the spatial system unit own a significant role as the terminal point of ‘communication’ network in the urban life, which means the human interaction and communication can occur effectively in Malioboro and it generates urban liveliness. From this point of view, clearly that the re-arrangement of vendors in Malioboro should be carried out with the basis of the basic unit of A2 which refers to the street-side vendors and B2 which refers to the shop-side vendors. In addition, it is well known that space for vendor in Malioboro are desired for economic reason. That’s why the number of vendor tend to be increased year by year. This condition may create a high density of people which is most associated with the label of ‘crowning’. The effect of crowding in Malioboro related to an inability to control interpersonal interaction and extremely influences the increase of crime rate. The spatial re-arrangement of vendors in Malioboro will appear to permit successful coping with crowding. It is directed to manage space and people (visitor and vendor) exist and it permits individuals to cope with overcrowding in this area.

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