

# Typological Study of Public Plaza for Improving the Sense of Place in Glodok

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## ABSTRACT

Public place is a space which has taken a major role in human's daily activity. As a result of social interaction in a setting, people can feel a flicker of emotion for the place which is known as the sense of place. One of the public places taking in the urban scope is plaza. Plaza is a center of social interaction between individuals or groups in the open space. The results of this study produce eight criteria of a plaza with strong a sense of place to make a city more liveable, namely, street, visual image, identity, activity, scale, accessibility, comfort, and sociability. A case study of Glodok in West Jakarta will be analyzed based on those criteria to help Glodok's main concern. Glodok is one of Jakarta's Chinatown trading centers which has a rich history and the cultural value up until now. It used to have a plaza as a place to interact. However, Glodok's population growth is rapidly increased, turning all the open plazas into buildings of shophouses. Although Glodok's history and culture are very well known, Glodok is now very crowded and lacking in some qualities. Therefore, there is a concern that the area's unique culture will slowly disappear; making Glodok lose its sense of place as a Chinatown area.

**Keywords:** *sense of place, attachment, open public space, plaza, plaza typology*

## 1. INTRODUCTION

Public space is a place which could be accessed by various groups of people to do their daily activities. It is defined as a place formed by a pattern or arrangement of building masses to accommodate both individuals and groups to do their activities [1]. Plaza as one of open public space is very crucial to create a sustainable city. It plays an important role in defining urban's mass and void composition. Urban social's characteristic could be determined by how those squares and plazas embody a liveable and friendly living space [2]. Plaza or square represents identities of the community around the area. Poor quality of open public spaces could impact mental health and people's behaviour due to lack of social activities. The main aspect to improve the quality of open public spaces is strengthening its sense of place. Sense of place could be defined as a pattern of mental image and emotional feeling which occur as a result of contact between people and places [2]. Sense of place works as a catalyst to change one's perception of 'space' to a 'place' which has more meaning and value [3]. Sense of place creates an emotional attachment between people and places, making the people become more interested in coming back to the place. Therefore, the area is more alive and more likely to have a high value in urban spaces. A city can be stated sustainable if they have a good public space which accommodate people's daily activity and, in the process, creating a good sense of place to make it liveable. A great city has great urban space which can accommodate and adapt to diversity, dynamic changes, and unprecedented urban conditions [4]. Therefore, as the time has passed by, the form of plaza as one of urban spaces, has evolved and

growing to keep up with the people's needs [5]. According to Zucker, in his book *Town and Square*, he stated five different typologies of plaza based on its archetypes and three different typologies based on its geometry. Through the diversity of plaza typologies, this research is conducted to find which type of plaza typologies that can further enhance the sense of place in a certain area to create a sustainable urban space. The main issue appears from lack of open public space in the city. As the city grows, the population density increases which demands more land to be used as housing. Hence, this result in optimizing the land use by building more houses or shophouses and eliminating plazas, squares and parks without realizing the importance of open spaces for enhancing sense of place around the area to make a more liveable city.

For example is Glodok in West Jakarta. Due to high population density, it is now filled with houses which leave no room for the area to breathe. Glodok has a unique identity which could be traced-back to the 16<sup>th</sup> century. Glodok used to have a plaza and a lot of other open spaces, but nowadays, the area is very crowded with buildings, hence, it is very uncomfortable. It is concerned that this poor quality could lead to the fading of its sense of place. The aim of this research is to find criteria and variable of public space which could enhance the sense of place in creating a liveable urban space by the typological study of plaza, which criteria is best to improve Glodok's main issue and how the diversity of plaza could enhance Glodok's sense of place.

## 2. THEORETICAL FRAMEWORK

### 2.1. Plaza as a Public Space

#### 2.1.1. Public Space

Public space has a role in everyday life as place of social interaction where activities of everyone happen in the open space. Based on its characteristic, public space is divided into two, which are closed public space and open public space [6]. Closed public space is defined as a place where the social activity and interaction happen inside a building. For example are library, museum, church, national gallery, etc. Whereas open public space is defined as a place where the public activity happens outside of the building. Open public space is more flexible and not limited by regulation. Moreover, open public space can enhance certain cultural values and meet social needs for the community [7]. Open public space also gives positive impact on a city, both physically and socially which will strengthen the city's identity. It affects various aspects of people's lives, especially the social aspects. In addition, open public space plays an active role as a forum for people to carry out functional and incidental activities [7]. Incidental activities can include meetings between individuals or groups in a crowd.

In general, there are three categories of open public spaces that can be used as supporting elements in the city [8]. The three open public spaces are square, street and park. Square or plaza is an open field which composed by the surrounding masses and acts as a place for people to socialize, both formally and informally. Street or road is a connecting line and mobilization from one place to another which plays a dynamic role in urban area, whereas park is quite like square, but it has a recreational and ecological function as the city's lungs. This research will emphasize more on the square and its typology.

#### 2.1.1. Plaza

Squares or public plazas are built as a place for social interaction between people. Originally, plaza came from French word, *platea*, which mean courtyard or field [9]. According to Kevin Lynch, plaza is a place which becomes the centre of activity in a city [10]. In addition, Moughtin said that plaza is an open field which is surrounded by building as its boundaries [11].

From each definition of various sources, it can be said that the plaza is a courtyard that functions as a place to socialize and interact and is generally surrounded by other buildings as a centre of activity in a city. Paul Zucker in his books [12] explained that there are a few typologies in designing

plazas as open public spaces based on their characteristics, which are,

#### a. Closed Plaza

Closed plaza usually has a geometric figure such as square, circle, or triangle. The closed plaza is centrally oriented, limited by the mass or façade of the surrounding buildings. Usually, closed plaza is completed by restaurants, street furniture, pavements, trees, and water feature. Closed plaza is the most common squares and is very easy to be recognized. A great example of closed plaza is Plaza Mayor in Madrid.

#### b. Dominated Plaza

Dominated plaza has a dominant feature which becomes the focus of the area. The main view of this plaza is oriented to a large building or statue which has a historical or cultural value to it. This typology is often used in historic grand buildings such as churches located in the city centre. This dominant feature plays a role in attracting visitors to come enliven the city.

#### c. Nucleated Plaza

Nucleated plaza emphasizes on its feature which lays in the middle and acts as the 'core' of the plaza. The open space surrounds the middle feature, hence the name 'nucleated'. A great example of nucleated plaza is Monas, Indonesia. This plaza has a core in the middle, which is oriented to the monument.

#### d. Grouped Plaza

Grouped plaza is several open spaces that incorporated in one area. The relationship between each plaza can be form by physical connections such as road, alley or arcade. Grouped plaza can be formed by three or more monumental or historical adjacent building. Through this typology, there arises an interconnection between each separate space creating harmonization within the area.

#### e. Amorphous Plaza

Amorphous plaza is formed organically by an arrangement of adjacent individual plaza. Amorphous plaza does not have a determined element, such as clear edges boundaries as in closed plaza. Although separate, amorphous plaza still has its elements which could make the space easily defined as a plaza if put together. One of a great example of amorphous plaza is Scollay Square in Boston. The square does not have a defined form, which can be said as a residual space of adjacent buildings around the area.

These five categories are simplified to three plaza typologies based on its geometry, which are square, linear and irregular.

## 2.2. The Sense of Place

Sense of place is related to individual's perception towards certain places which gives a certain meaning to everyone's emotion. It variously defined as place identity, place meaning, place experience [13]. The sense of place refers more to the symbolic meaning people ascribe to places. Sense of place is also related to the establishment of the

atmosphere around the area which is based on individual's mental image to the places. The terminology of sense of place can be interpreted as a pattern of mental image which arises because of contact reaction between individual and a place [14]. Therefore, sense of place becomes one of the elements to create a liveable, active, and sustainable city. Sense of place is the form of emotions, feelings attachments, and mental perceptions of individuals that are created as a result of a unique identity of a certain place. In addition, sense of place is a mental perception and connection of feeling towards an area which can change a space into a place [3].

In short, the sense of place is formed due to a direct relationship between the individual, place, historical value of the place and the characteristic of environment surrounding the place [15]. In his book, *The Sense of Place*, Steele explained that there are two aspects that play an important role in creating a sense of place, namely, the person and the place itself [14]. There are no boundaries or limit towards the formation of one's sense of place, and it often includes all sort of influences that unconsciously change individual's attitude while being in that place.

a. Person

The element which forms a sense of place lies in the individual as the subject which creates the mental perception. This perception arises from the individual's experience through the place, including the duration of time spent in the location of the place, the frequency of contact with the place, the awareness of pattern surrounding the environment and setting's uniqueness.

b. Place

The second element which forms a sense of place is the setting of the place itself. Place can be defined as an external environment that surrounds the subject at a certain time. Sense of place in the setting is formed by the subject's connection as a person through the setting. The reciprocal relationship between subject and the setting both positively and negatively can bring up an emotional picture on the subject's perception.

**2.3 Criteria of Plaza Contributing to Enhance the Sense of Place**

**2.3.1. Criteria of Successful Plaza**

To maintain sustainability of the city, a public plaza must have a good quality both physically and socially. Physical aspects include all sort of things which are formed visually, whereas social aspects are the things which form mental images and can affect individuals psychologically [2]. According to Project for Public Space Organization or well known as PPS, it is mentioned that there are four qualities which are considered the key of successful open public space, including plaza [16]. Those four qualities include,

a. Access and linkage

Access and linkage are the most important thing in achieving the destination. Through a clear linkage and an easy access, it will facilitate the user's activity while being in the place. Accessibility is related to the physical and visual connection of the surrounding space. The criteria in this element are described in various variables including continuity, proximity, connected, readable, walkable, convenient, and accessible.

b. Uses and activity

The involvement of users and their activities in a setting or a certain place becomes very crucial in the sustainability of a public plaza. Activities and social interactions which are formed inside the setting can create positive energy for the users and give a meaning for the plaza itself. Without activity means the place is no longer useful and will be left vacant. Therefore, uses and activity inside a public space are an important part of a liveable city. The criteria in this element are described in various variables including, active, vital, special, real, useful, sustainable, and interesting.

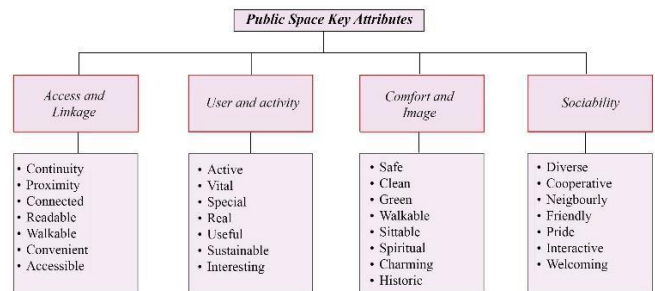
c. Comfort and image

The key to a successful open public space also lies in the comfort which the setting supports and how the setting could create a positive image to the users. In addition, a great and positive image will make users feel more comfortable while being in the setting. Hence, the users will be willing to come back as they have created a special bond or attachment to the setting. The criteria in this element are described in various variables including, safe, clean, green, walkable, 'sittable', spiritual, charming, and historic.

d. Sociability of public space

For achieving a successful open public space, this criterion might a challenge because it depends on the interaction of each individual. The involvement of every user towards one another taking place in the specific setting becomes very relevant and important. It cannot happen overnight and must slowly grow which is why the image that the setting gives to the users becomes very important. When the sociability formed by the users around the setting has grown, it is safe to say that an area will have a high social comfort and can lead to a successful open public space. The criteria in this element is described in various variables including, diverse, cooperative, neighbourly, friendly, pride, interactive, welcoming.

The Figure 1 below, conclude the theory of successful public space with each variable



**Figure 1** Diagram Criteria of Public Space with Variables

### 2.3.2. Criteria of Strong Setting's Sense of Place

Open public space with a strong sense of place plays a big role in creating a sustainable and liveable city. Sense of place is created by the interaction between the subjects and the setting which is strengthened by the unique identity around the setting. In his book, *The Sense of Place*, Fritz Steele explained that there are a few elements to change one's perceptiveness towards a setting, from just a 'space' to a 'place'. These elements must be considered to create a place with a strong sense of place.

- a. Reinforcing patterns and sequences  
Coherent patterns and program sequence in a place will become more accessible for the users. The pattern and sequence can be seen as an easy wayfinding from the entrance to the exit which is supported by a clear path and signage. A clear path helps to improve the quality of spatial experience of the setting. According to Steele, path and street sequence can strengthen the sense of place in a setting because the place is defined easily.
- b. Rich Materials for memories  
Materials, building façade, and ornament which are interesting, visually appealing, and meaningful play a big role in creating a unique memory towards the setting. Through the visual play from the setting can create a memory of the place which will be difficult to forget and will lead to the attachment of the setting. Steele said that a setting which has a lot of coherent visual images can trigger fantasy and memory so that the setting provides a rich experience from the subject.
- c. A sense of identity  
The formation of sense of place is very closely related to the identity of the place. Identity is a unique characteristic which only the place has. It makes the place not easily forgotten because the user has, visually and mentally, been bound to the uniqueness of the place. Each setting has a different identity that embraces the environment's uniqueness. In general, identity is related to landmark, and local and historical values.
- d. Choices and Option  
A setting must be high in flexibility so it can easily be used according to the user's needs. In addition, a setting must have a series of choices and option that is adaptable to the user's requirement. It is likely that the users will choose a setting that is spacious, free and elegant; rather than something that is narrow, fixed and cannot be changed. With this flexibility, the users can freely do their activities, without being bound to a fixed setting.
- e. Highlighting opportunities  
A setting must be able to highlight and embrace its opportunities to provide a positive advantage both for the place and the user. A setting that has special features in the form of entertainment, architectural venues, and especially commercial areas can support more activities in the place so that it becomes more alive. Users are usually attracted to a setting which provides more fun and activities, e.g. food venues, shopping center, office, etc.
- f. Active space  
A setting which embraces its potential and opportunities will easily encourage the user to be active in carrying

out their activities in the area. Those activities can be in the form of interactions of user to user, or user to the surrounding environment. The unique atmosphere of a place can be formed from the pattern of user's activity. A setting which is visited by many people repeatedly means it has interesting and special values that meet their requirements.

- g. Appropriate scale  
The scale of both building and open space becomes an important element in creating a strong sense of place. Building and open space which are too massive can reduce the sense of togetherness while being in the setting. The massiveness will make it hard for the users to grasp and remember something unique regarding the setting and its environment. A high-levelled building with narrow street is more intimidating than shorter building with large street. The proportion of each architectural elements; the building, street, open space is necessarily considered to create strong sense of place. Fritz Steele mentioned seven elements to create a strong sense of place. The seven elements are then categorized to a more simplify criterions. From the Figure 2 [14], the seven elements are categorized to five criterions, which is street, visual image, identity, activity, and scale, with its variables.

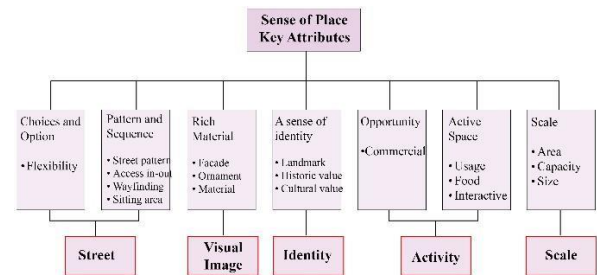


Figure 2 Diagram Criteria of Sense of Place

### 2.3.3. Criteria of Plaza as a Public Space to Improve the Sense of Place

As mentioned before, open public space, such as squares or plazas play an important role in user's activity inside a certain city whereas sense of place creates an emotional attachment and is related mentally to the users themselves while being in a certain place. Both plaza and sense of place is connected to the users in creating a sustainable city. Therefore, the theory of successful open public space by PPS, and the theory of strong sense of place by Fritz Steele will be combined. Each criterion of the plaza is crossed to the criterion of sense of place to find more suitable criteria for a plaza which has a strong sense of place to make a more sustainable city.

The figure table below shows the crossing of both theory, sense of place and public space to create an independent theory of open public space with strong sense of place. From the crossing, eight criterions area generated as the new

requirement to make an open public space has more strong sense of place. The eight criteria are street, visual image, identity, activity, scale, accessibility, comfort, sociability. These eight criteria and each variable will be the theoretical base for this research.

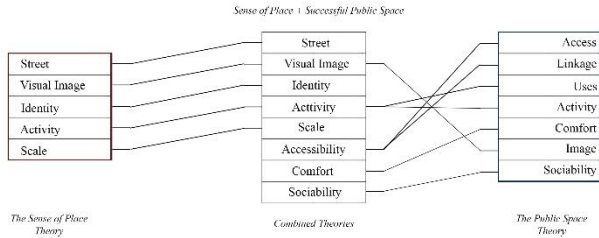


Figure 3 Crossing of the Two Main Theories

Then, based on the description of the eight criteria above, each variable is also crossed to find more suitable variables for each criterion. The crossing of each variables to the eight criteria are shown in Figure 3 [14], [16]. These eight criteria and its variables are used as benchmarks as the basis of this study. The evaluator is adapted from Im Sik Cho’s book, titled Reframing Urban Space book. The evaluator describes each variable for a more specific evaluation.

Table 1 Criteria of Plaza with Strong Sense of Place

Criteria	Variable	Evaluator
Street	Continuity	Space is divided into sub-space with the connection is clearly visible Each sub-space has a special quality
	Street pattern	Clear street patterns; high in permeability A good and readable sequence of street pattern
	Access (in & out)	Minimum of two nodes activity surrounding area, especially entrance
	Wayfinding	In and out access is easy to read from the outside Minimum of 2 nodes as markers for path discovery
Visual Image	Green	Clear greenery in some areas Water feature is provided as aesthetic value Visible biodiversity throughout the area
	Façade	The design of the building’s frontage has a special value and can easily be defined
	Ornament	Visible usage of ornaments as markers of cultural and historical value
	Material	Minimum 2 usage of ornaments as markers of cultural and historical values
Identity	Landmark	Minimum 1 landmark visible around the area
	Historical & Cultural value	There are visible historical and cultural values that have been preserved for a long time
Activity	Usage	Minimum of 2 public facilities available Connection between 2 or more public facilities
	Flexibility	Minimum 2 major activities carried out together (annual festivals or events)
	Food	Minimum 5 food vendors as a complement; either restaurants or stalls
	Interactive	Flexible space; has moveable seat arrangement
	Commercial	Minimum 2 commercial facilities
	Special	Unique and natural features for activities
	Sustainable	Known culture values which has been along for a while
	Active	Minimum of two activities to do around the area
Scale	Area	Appropriate scale and proportion which can provide user’s activity
	Size	Able to accommodate numbers of users according to their needs
	Capacity	

Accessibility	Connection	Visible visual connection between the main setting and the environment Visible active nodes that connect each sub-space
	Circulation	Pedestrian way and car circulation are clearly separated and have its own system
	Walkable	Surrounding facilities can be reached by walking radius (100-200m) Safe pedestrian way, min. 3 meters
	Readable	Edges, such as buildings frontage, are clearly visible More than 2 visible nodes as markers
Comfort	Safe	The design system prevents physical injury, such as having railing on the stairs Sufficient lighting on the street, min every 5 meters
	Clean	The place is clean and properly maintained Minimum 2 cleaning facility
	Green	Visible green area as shading
	Street Furniture	Visible street furniture Minimum 2 types of seating arrangements Seating has enough shading
Sociability	Diverse user	The space is created and suitable for various groups of people, age and gender
	Friendly	Activities in the area encourage interaction between individual or groups
	Proud	The space has unique features that can be easily remembered and leave good impression to be proud of
	Welcoming	Open area, not intimidating, inviting

The figure Table 1 above shows the eight criteria with its variable and evaluator [14], [16], [4]. The evaluator describes each variable so that it can be marked or scored with numbers. The precedent and case study will be evaluated by each variable and will be represented by scoring system from 0 to 5 according to its evaluator.

### 2.4. Precedent Analysis

This research emphasizes on the study of various plaza and its connection to the quality of successful public space with strong sense of place. The study uses the basis theory from Table 1 and evaluates the precedent by each variable with its evaluator. This aim to find which plaza has the most score in being a successful plaza with strong sense of place.

#### 2.4.1. Piazza del Campo; square typology

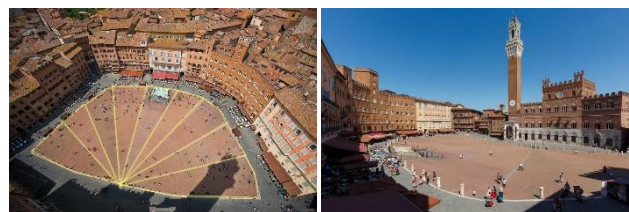


Figure 4 Visuals of Piazza del Campo, Siena

Piazza del Campo is one of the most famous plazas in Siena, Italia. In this study, Piazza del Campo represents the study of square typology. It plays a big role in being the heart of the activity for the city. Piazza del campo supports a historical building called Palazzo Pubblico. Palazzo Pubblico used to be government building which now turned into a museum.

Initially, as seen in Figure 4, Piazza del Campo was built specifically for the government, which is why its position is in the confluence of the three main lines to get to the center of the Siena. Its street pattern is easily defined. The use of different material is in the floor and in the building. The combination creates a pattern which is very special and unique. Piazza del Campo has historical value from the influence of medieval area and gothic. It can be seen from symmetrical opening with upper arches, the use of red bricks and ornament in the crown tower. Piazza del Campo is flexible and able to accommodate various activities for the user's need, formal, informal, small, and big events. Formal activities are such as annual horse-racing, bullfight, etc. Informal activities are such as shopping and sight-seeing. The scale and proportion from the field and the building are proportional. The Piazza Pubblico, which is the landmark, is dominant and has the highest level. The area is accessible and has eleven entryways to get to the inside of the plaza. The plaza does not have any greenery which is unfortunate, but the shading usually comes from the surrounding building. The plaza is very open, inviting and not intimidating.

2.4.2. *Cheonggyecheon Stream; linear typology*

Cheonggyecheon Stream is a linear plaza that functions as recreational area. The length of the stream reaches 10 kilometres. This area is a regeneration project carried out by the South Korean Government. The initial purpose of the stream restoration was to connect North and South urban areas of Seoul which was separated by the river.



Figure 5 Visuals of Cheonggyecheon Stream, Seoul

Cheonggyecheon plaza is located in the commercial area of Seoul which makes it easy to be accessed by public. Cheonggyecheon connects some of the biggest destination in Seoul, such as Dongdaemun, etc. The street pattern is visible which makes an easy wayfinding to the area. The plaza is visually pleasing, with a curve design edges to create a unique experience while being in the area. The river itself holds a lot of historical value because it has existed since the Joseon Dynasty era. Cheonggyecheon plaza is very close to the main attractions in Seoul which is very suitable for formal or informal event to take place. Festival, fashion show, contest, as well as cultural activities are often performed in the area. Informal activities throughout the area are mainly shopping, sight-seeing and culinary. The main area located in the middle of the 10 kilometers plaza which has 22 active bridges that connect the active area in North and South as seen in Figure 5. The area has street furniture and vegetation throughout the plaza, and ramp, as well as lift for disabled users.

Therefore, the plaza is friendly, open and not intimidating to all groups, genders, and ages.

2.4.3. *Sensoji District temple; irregular typology*

Sensoji District Temple represents the irregular typology study of plaza. Sensoji is a temple in Asakusa, Tokyo. It is the most famous temple because it is the oldest Buddhist Temple in Tokyo. The temple was originally built to honor Buddhist goddess, Kanon. In this area, there are several other religious buildings, such as pagoda, which form a unified district with irregular open plaza as connector.



Figure 6 Visuals of Sensoji District Temple, Tokyo

Sensoji Temple is in the center of Asakusa so it is easy to find. The main street to the area is well defined through the presence of a large red entrance gate as seen in Figure 6. The Sensoji Temple is very rich in culture and history. It can be seen from the use of color as symbolism, such as red which is believed to be the color of luck, health, and wealth. Sensoji has a main landmark which is the Sensoji Temple, and two other notable notes, which are Kaminarimon as the main gate and Hozomon as the second gate. This district is one of government's cultural conservation program which is aimed to store Japan's culture. The district is packed with a lot of activities, formal and informal. Formal activities such as religious events are held every month. In addition, there are shopping street which held informal activities such as shopping. The scale and proportion are proportional. In reaching Sensoji Temple, the connection between one nodes to other nodes are not defined in the form of grid, which is why it is categorized as irregular typology. However, the pattern and sequence of access is clearly visible. A lot of greeneries throughout the district make it very comfortable. Sensoji District Temple has a very massive gate which is very inviting and not intimidating.

2.4.4. *Scoring System for Study of Plaza Typology by Precedent*

The study of typology in each precedent is using a scoring method which analyzed by the evaluator in each variable. Table 2 explains the scoring comparison in the precedent to know which typology has the highest score and is suitable to strengthen the sense of place throughout the area. The scoring system uses the number 1-5; 1 means the evaluator of each variable is visible but it cannot be used properly or

in bad condition, 2 means the evaluator is visible, it can be used but it is not adequate, 3 means the evaluator is visible, a little more adequate but it gives no special impact to the surroundings, 4 means the evaluator is adequate, sufficient amount, supporting the surrounding, but needs some fixing, 5 means the evaluator is excellent, very adequate, and has met the criteria. The scoring considered each evaluator which described in the Table 1.

**Table 2** Scoring of Precedent Based on Criteria

Criteria	Variable	Typological Study in Precedent			
		Piazza del Campo (Square)	Cheonggyecheon Stream (Linear)	Sensoji Temple (Irregular)	
<b>Street</b>	Continuity	4	3	4	
	Street pattern	5	3	4	
	Access (in & out)	3	3	5	
	Wayfinding	4	5	5	
	Attractive	✓		✓	
<b>Visual Image</b>	Green	1	4	5	
	Façade	4	2	5	
	Ornament	3	1	5	
	Material	5	4	4	
<b>Identity</b>	Landmark	5	5	5	
	Historic/ value	4	2	5	
	Entrance gate	✓		✓	
	Uniqueness	✓	✓	✓	
	<b>Activity</b>	Usage	4	4	4
Flexibility		5	4	5	
Food		5	5	5	
Interactive		5	4	3	
Commer-cial		4	5	4	
Special		2	5	4	
Sustainable		2	3	5	
Active		4	4	4	
<b>Scale</b>		Area, Size	4	2	2
		Capacity	4	2	3
<b>Accessi-bility</b>	Connection	3	3	4	
	Circulation	4	5	5	
	Walkable	4	3	4	
	Readable	4	3	4	
<b>Com-fort</b>	Safe	3	3	3	
	Clean	4	3	3	
	Green	1	5	3	
	Street Furniture	3	4	3	
<b>Socia-bility</b>	Diverse user	4	5	4	
	Friendly	4	4	4	
	Proud	5	2	5	
	Welcoming	5	5	5	
<b>Total</b>		<b>121/160</b>	<b>115/160</b>	<b>133/160</b>	

From the analysis based on Table 2, it is stated that the irregular typology in Sensoji Temple get the highest point, the second is square typology and the third is linear typology. It means that the sense of place is strongest on the irregular plaza because irregular plaza is generally a combination between linear and square plazas. From the analysis, it is also found that there are three more additional variables that did not mention by the two theories. Those variables are attractive in the street criteria, and entrance gate as well as uniqueness in the identity criteria. The additional variables labelled in yellow. These additional variables are found after the analysis and are crucial to help strengthen plaza’s sense of place.

**2.4.5. Conclusion of Precedent Study**

The aim of this precedent study is not only to find which plaza typology has the strongest sense of place, but also to find which variables becomes the variables of priorities when it comes down to designing a plaza with strong sense of place. The variables of priorities are categorized from the scoring in the Table 2 [14], [16], [4].

**Table 3** Variable Priority Categorization

Score	Square (Piazza del Campo)	Linear (Cheonggyecheon)	Irregular (Sensoji Temple)	
<b>Excellent (4-5)</b>	Continuity	Wayfinding	Street pattern	
	Wayfinding	Greeneries	Continuity	
	Façade	Access in & out	Wayfinding	
	<b>Priority I</b>	Material	Material	Façade
		Landmark	Landmark	Ornament
		Historical	Usage	Material
	<b>Priority II</b>	Cultural	Flexibility	Landmark
		Usage	Food	Historical
		Flexibility	Interactive	Cultural
		Food	Commercial	Usage
		Interactive	Special	Flexibility
		Commercial	Active	Food
		Active	Circulation	Commercial
		Area	Street furniture	Special
		Capacity	Diverse user	Sustainable
Connection		Friendly	Active	
<b>Good (1-3)</b>	Circulation	Welcoming	Connection	
	Walkable		Circulation	
	Readable		Walkable	
	Clean		Readable	
	Diverse user		Proud	
	Friendly		Greeneries	
	Proud		Diverse user	
	Welcoming		Friendly	
	<b>Priority III</b>		Street pattern	Welcoming
		Access in & out	Continuity	Access in & out
		Special	Access	Interactive
		Sustainable	Façade	Area
		Ornament	Ornament	Capacity
		Greeneries	Historical	Safe
		Safe	Cultural	Street furniture
Street furniture		Sustainable	Clean	
		Area		
		Capacity		
		Connection		
		Walkable		
		Readable		
		Clean		
		Proud		
	Safe			

Table 3 describes the categorization of score to know which variables is included in priority I, II or III. The variables which has score 4 to 5 are categorized into “excellent”, and the variables which has score from 1-3 are categorized into “good”. Then, all the variables in “excellent” category are mark with the colour red and blue. Red means Priority I where the same variables appear in the three typologies. The blue means Priority II, and the “good” category falls into Priority III. Priority II and III function as supporting variables, whereas Priority I is the main focus. When it comes to designing a plaza with strong sense of place, it is best to consider all the variables. However, the variables labelled red, which are the Priority I, helps in focusing on which criteria should be in the top consideration while designing the plaza. There are ten variables which become Priority I based on Table 3, namely, wayfinding, material,

landmark, usage, flexibility, food, commercial, active, circulation, diverse user, friendly and welcoming. In addition, these variables of priority also help to establish the main concepts of designing a plaza with strong sense of place. The main concepts will be applied to the case study of this research, which is in Glodok, West Jakarta. The criteria of which has the most variables of priority become the main concept in designing the plaza.

**Table 4** Main Concept Development Based on Variable Priority

Criteria	Number Variable of Priority	Average Score	Variables
Street	2 out of 6	0.333	Continuity, attractive
Visual Image	1 out of 4	0.25	Material
Identity	3 out of 5	0.6	Landmark, entrance gate, uniqueness
Activity	5 out of 8	0.625	Usage, flexibility, food, commercial, active
Scale	0 out of 3	0	-
Accessibility	1 out of 4	0.25	Circulation
Comfort	0 out of 4	0	-
Sociability	3 out of 4	0.75	Diverse user, friendly, welcoming

Based on the average number of variables of priority each criterion, as described in Table 4, the criteria which has the most variables of priority in order are sociability, activity, identity, and street. These four criteria become the main concept of designing plaza with strong sense of place.

### 3. Case Study: Glodok, West Jakarta

#### 3.1. History and Problem's Background



**Figure 7** The map of Glodok, West Jakarta

Glodok is an urban village of Taman Sari, in West Jakarta, Indonesia as seen in Figure 7. Glodok has a unique identity and it is considered as the biggest Chinatown since the Dutch colonial era. It is also known as one of the trade centres in Jakarta which occupied by mostly of Chinese descent. Originally, Glodok was a Chinese trading area during VOC and Dutch colonial era. Glodok was a stopping point for the traders and the saddles of its time [17]. Then, Glodok slowly grew as a commercial area in Batavia and became a popular trading centre which was mostly occupied by Chinese ethnic. From the book Historical Sights of Jakarta, Adolf Heukuen stated that Chinese Lieutenant, Guo Xun Guan, built a temple in Glodok in the year of 1650 [18].

The temple was built in the centre of Glodok area, as a main attraction to respect and honour Guan-Yin as seen in Figure 8. The Temple of Guan-Yin becomes the main identity in the area and described as a marker of the growth of the Chinese people in the Glodok since the 17<sup>th</sup> century [17]. The identity of Glodok area as a Chinatown is still widely known until today. Glodok has several historical buildings, such as temples and churches that have stood for three centuries. The Temple of Guan-Yin still exists today under the name “Vihara Dharma Bhakti”. However, nowadays, Glodok has grown very dense and has not been very well managed. It is lack in maintaining and some other aspect. Glodok has grown too crowded, dirty, and became unsuitable for safe usage. The Temple of Guan-Yin is difficult to reach because the less maintained street.

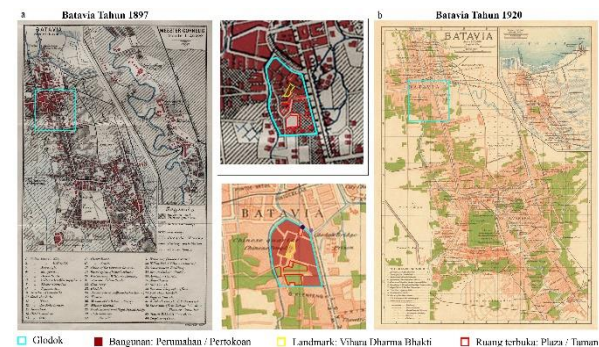


**Figure 8** Temple of Guan-Yin / Vihara Dharma Bhakti

In reaching this temple, the user must pass through small and crowded alleys without a decent pedestrian which is very unsafe. In addition, there are not visible open space, nor plaza which makes the area becomes very stuffy, crowded, and unpleasing. In the 17<sup>th</sup> century, Glodok had some visible plazas and open spaces which support the user's activity. The Temple of Guan-Yin was opened and easy to reach, so it stood out as the main attraction of Glodok.

As a result of the uncontrolled growth of housing, the area became too dense and the plaza which gave a positive energy for people's activity was rid of. Now, Glodok is left with poor quality and unmaintained core, which can reduce the sense of place. It is feared that it will threaten the sustainability of identity which has been going on for three centuries. Therefore, improving the quality of the area is needed through designing a plaza around Glodok is needed to make it more liveable and have strong sense of place.

#### 3.2. Study of Plaza in Glodok, West Jakarta



**Figure 8** The map of Glodok in 1897 and 1920



Nowadays, the Glodok area does not have any open plaza. The area has grown crowded with buildings and housing. Figure 8 shows the map of Batavia on the year 1897 and 1920. According to map data from 1879, it can be seen from that West Jakarta was actually a dense area. However, there could be seen some open spaces and plazas which supports the user's activity. Glodok continued to grow more densely. On the year of 1920, the open space has decreased. The building development was rapidly grown to meet the population's need.

The open space acted as a welcoming plaza which function as commercial space, as well as gathering place. The plaza can be identified as irregular typology, with the combination of linear typology which defined through the activities on the edges of street and surrounding boundaries such as shophouses which create an interactive space as seen in Figure 9. This open plaza became one of the markers of social interaction that was easily recognized by many people because it was located near the main street. The open plaza was a transition from the main street to the deeper area which is near the Temple of Guan-Yin.

The growth of atrium plaza acts as an opening and transition space, marked in yellow.

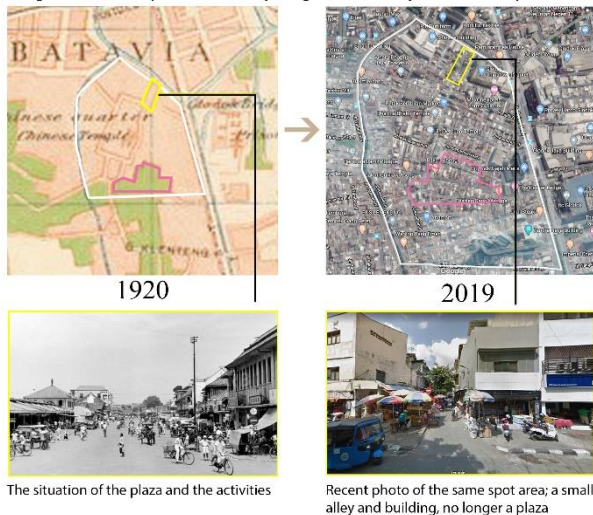


Figure 9 Glodok opening plaza, then and now



Figure 10 Glodok open area, then and now

Throughout the years, population growth in Jakarta is rapidly increasing. The open spaces are lost due to construction which resulted in Glodok being filled with

crowded buildings and small street alleys. In the Figure 8, there is no more open space throughout Glodok in 2019. The plaza that used to be an opening plaza from the main street to the Temple of Guan-Yin has become a small alley which is surrounded by buildings. Hence, the Temple of Guan-Yin becomes less known, even though it was the first and possibly one of the most influential building which store many valuable histories and Glodok's identity. To reach the Temple of Guan-Yin, user must go through a small alley which has street vendors and traditional market in the side of the road. The phenomenon of the loss of open plaza in the area can weaken the sense of place because the plaza plays a great role in defining the place to be more meaningful as seen in Figure 10. The social interaction, the historical value, slowly disappear which is bad for the Glodok identity. The aim of this research is to create a better place for Glodok to maintain its identity by designing a plaza which acts as a social interaction space as well as transition space to strengthen its sense of place.

### 3.3 Result

#### 3.3.1. Glodok's Analysis Based on Criteria

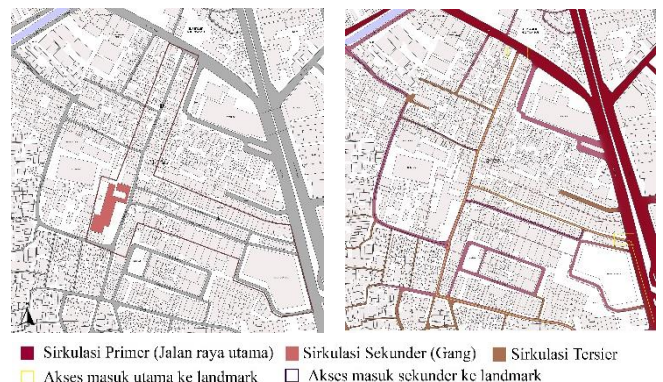


Figure 11 Site before renewal and site circulation

The exact site area to repaired, renewed, and improved is around the RW 01 and RW 02 of Taman Sari sub-district. The North boundary of the site is Pecenongan Street, the East boundary is Gajah Mada Street which is the main road, the South boundary is Kemurnian Utara Street and the West boundary is Kemenangan 3 Street as seen in Figure 11. According to the municipal regulation, the Building Coverage Ratio (KDB) is 75%, Floor Building Coefficient (KLB) is 4, Set Back Building is 5-7,5 meters, and the maximum level of floor is 4. The analysis of Glodok area based on the eight criteria is described on Table 5.

Table 5 Description of Site Analysis Based on Criteria

Criteria	Variable	S	Glodok's Analysis
Street	Continuity	2	- The entrance gate or signage is
	Street pattern	3	not properly defined as marker

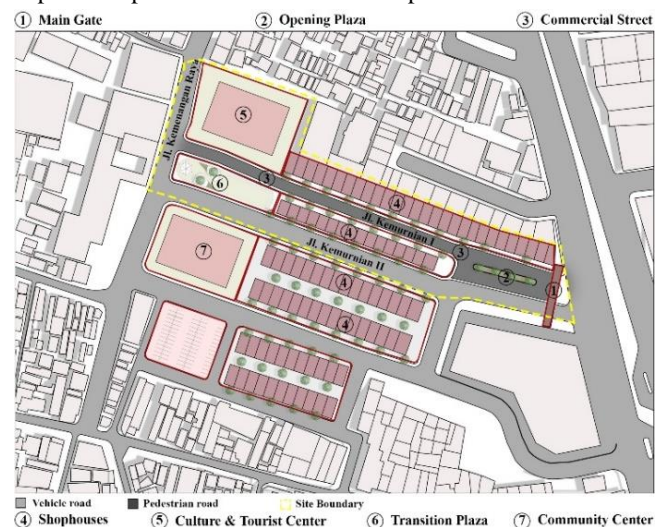
	Access (in-out)	2	- In the main sub-spaces, the activity is not special
	Wayfinding	3	- In some nodes such as the market is very slump, while the shopping center is an old unmaintained building
	Attractive	1	- The street visual is not attractive, and used not according to its function
<b>Visual Image</b>	Green	2	- The China town characteristic in visual frontage is undefined
	Façade	2	- The use of ornaments in not too prominent - Not much of vegetation is seen
	Ornament	1	- Some streets are not properly maintained, it has holes and very bumpy, therefore unsafe. The same goes for the placement of electric poles which disturbs the visual picture of the area.
	Material	3	
<b>Identity</b>	Landmark	5	- The main gate is very small, and not maintained there for it is not as grand
	Historic/Cultural value	4	- The area has a landmark, which is the temple from the 16 <sup>th</sup> century. Hence, the activities are unique, but the place is not adequate for use.
	Entrance gate	2	
	Uniqueness	2	- Glodok's identity is slowly disappearing due to the of visual emphasis on its identity
<b>Activity</b>	Usage	2	- Glodok has unique activity which has been going on for centuries, such as religious activity in the landmark and the trading activity, Chinese New Year festival, <i>Cap Go Meh</i> Festival, etc.
	Flexibility	3	
	Food	2	
	Interactive	3	- However, Glodok does not have open space as place to accommodate large events
	Commercial	3	
	Special	0	- Even so, the festival is still held on the highway, or mall atrium so it interferes with other activities around and often create traffic jam.
	Sustainable	4	
	Active	3	
<b>Scale</b>	Area, Size	3	- Street and pedestrian ways have bad proportion; the pedestrian is too narrow and unsafe - The temple and entrance gate are not too massive which hard enough to be noticed as a landmark or nodes
	Capacity	2	- Glodok area does not have a large open space to accommodate the capacity of users on large events
<b>Accessibility</b>	Connection	2	- In some areas, connection of street is disconnected due to fences, so the area is not unified
	Circulation	3	- Car circulation lanes and pedestrian way are not clearly separated so it is uncomfortable
	Walkable	1	- Pedestrian circulation is disturbed by potted plants, electricity poles - The area is not safely walkable
	Readable	1	- Some nodes, such as market, are poorly managed and difficult to access
<b>Comfort</b>	Safe	1	- Pedestrian is not safe
	Clean	1	- The area lacks waste bin, and trash are visible around the street
	Green	2	- There is some vegetation, but it is not enough to shade the sun
	Street Furniture	2	- Street furniture cannot be seen around the area except in the landmark
<b>Sociability</b>	Diverse user	4	- Even though the area lacks some proper place for the activity, but since Glodok is very well known as trading area, therefore the area is crowded
	Friendly	3	
	Proud	4	

Welcoming	2	- The local residents are proud to presents their culture through some annual Chinese events - The people are friendly and diversified; come from different kind of group, gender, and age, - The only problem is that the place is not properly maintained/
<b>Total Score (S)</b>	<b>81 /160</b>	

The scoring is simply to give a clear image about Glodok's situation nowadays. In the Table 3, the right column explains the main problem which is based on the evaluator of each variables. In conclusion there are a few problems which makes Glodok does not have strong sense of place even though the identity is very rich. Those main problems are lack of open plaza for bigger events or activities, the entrance gate which cannot be defined easily, the pedestrian and car circulation is not adequate and not safe, old buildings which are not well maintained, visual image which does not define Chinatown, and unattractive street. These main problems will be covered and reviewed by the four main concepts which based on the variables of priority; criteria of identity, activity, street and sociability. However, nowadays, environmental comfort becomes one of the key factors for contemporary plaza. Thus, the environmental comfort is included as one of the main concepts.

### 3.3.2. Concept Design Development

As described in Table 4, Glodok has very poor quality regarding the eight criteria. Due to the population growth, Glodok has become very crowded, and losing all its plaza which give a great value on creating a sense of place throughout the area. Even though the identity is rich and well known by many people, but it is unfortunate that the area is not adequate to support the user's activity. To overcome this problem, the four concepts which mentioned above are taking a great role in renewing the area. Figure 12 explains the masterplan of the renewal of Glodok based on the criteria and explains implementation in each concept.



**Figure 12** Design masterplan of Glodok Renewal

a. Concept of Identity (1, 2)

The concept of identity will be solved the main problem by designing an entrance gate (1) as a marker so that the area will be easily defined. In addition, the concept will also be emphasized on designing an opening plaza (2) to welcome all the users while entering the Glodok area. To strengthen the identity visually, other than designing a grand entrance gate, the visual frontage of each shophouses will also be renewed accordingly.

b. Concept of Activity

As mentioned before, the activity around Glodok is unique and has been going on for years and years. The formal activity such as religious events, Chinese New Year festival, Cap Go Meh festival, and etc as well as the informal activity such as singing group, etc has been going on in Glodok. However, there are no place that is adequate to support those activities. The idea of concept of activity is to create a unique and special activity in each sub-space so that Glodok area is more organized. There also will be a connection of activity in each sub-space so the area become more harmonious.

c. Concept of Street (3,4)

Glodok street has been one of the biggest problems. Street plays a big role in user's circulation and movement in achieving certain places. The street in Glodok area is dirty, bumpy, and unsafe to use. It is also unattractive, even though there is so many commerce potentials throughout the area. Therefore, the concept of street will be based on those problems. The street will be divided into two lanes which is the pedestrian only (3) and the car way. The pedestrian only road is similar to shared street but it only functions for pedestrian and cyclist. The proportion of pedestrian way in the car circulation is adjusted so it is safer to use.

The pedestrian only street is also named commercial street. There will be culinary shophouses as well as retail to make the area more alive (4). Also, adding lamp street, vegetation, street furniture and waste bin to complete the street.

d. Concept of Sociability (5, 7)

The concept of sociability is designing a specific building for formal and informal activities. For formal activities will be culture and tourist information centre (5) and informal will be community space (7). These two building will complement and bind the Glodok as a complete harmonious Chinatown.

e. Concept of Environmental Comfort

As stated above, environmental comfort becomes one of the key factors to design a great plaza. Environmental comfort has wider meaning and interpretation. Unwittingly, there is a reciprocal relationship between social conditions and the built environment [19], which is one of the reasons why environmental comfort becomes one of the main concepts in this research. The environmental comfort in one place can change the way

we think and perceive the area, whether we are conscious or not. It may provoke an emotional response and influence us in particular way, making on place less or more appealing for particular activities [19]. For example, a place with more flexibility, as well as complimented with trees and street furniture may give more cosy and friendly vibe [13]. It enables the individual to have a more positive sense of place and create a place where they feel more comfortable. Sense of place often reinforces actions and routines that represents environmental care which could lead to a greater sense of place [13].







Based on the crossing of theory, the variables derived from the criteria "comfort" are safe, green, clean, and the usage of street furniture. In the Glodok area, the environmental comfort is designed subtly throughout the area. It can be seen and felt through the setting of vegetation to emphasize more cosy and comfortable surroundings, as well as the placement of streetlamp to emphasize the "safetiness" while being in the area. Street furniture is also available throughout the culinary plaza to make a subtle bonding between each person around the area. This bonding which is created by the friendly connection between individuals could give a strong attachment which leads to a strong sense of place.

The main study of this research is about plaza and sense of place. Based on all those four concepts, there is an additional concept which is the plaza itself. The design of plaza will be placed in the entrance as an opening plaza (2) to welcome all incoming users. It acts as transition from the outside main road to the deeper area of Glodok and to make the area more alive and harmonious. The other plaza is in the middle of Glodok near the Culture Centre (5), Community Space (7), and the landmark. It is a transition plaza to create a unite sub-space and act as an open space to accommodate large group of people in a big event.

The plaza designed in this area is considered as irregular plaza because it is a combination of certain typology. The opening plaza (2) is a main plaza which greet the users, continued to a linear plaza which is formed by the pedestrian only street or the commercial street (3). This commercial street is considered as linear plaza because of its specific activity which is shopping and culinary. The last plaza is plaza transition (2) between Culture Centre, landmark, and Community Space.

The description of concept implementation in Glodok can be seen in Table 6 with design visualizations around the area [14], [16].

**Table 6** Implementation of the Criteria to Glodok

Entrance Gate (1)	Opening Plaza, Plaza Irregular (2)	Commercial Street, Plaza Linear (3)
Concept of Identity	Concept of Identity, Environmental Comfort	Concept of Street, Environmental Comfort
		
As main marker in entering the area, informal activity	Activity: Informal activity, culinary, sight-seeing, taking a stroll around the area	Main circulation of the area, culinary, food stall, shopping, accommodate large capacity of big event.
<u>Criteria of Sense of Place:</u> Street, visual image, identity, scale, sociability	<u>Criteria of Sense of Place:</u> Street, identity, activity, comfort, sociability	<u>Criteria of Sense of Place:</u> Street, activity, scale, accessibility, comfort
<u>Variable of Priority I:</u> Wayfinding, welcoming, landmark	<u>Variable of Priority I:</u> Flexibility, commercial, active	<u>Variable of Priority I:</u> Flexibility, commercial, circulation, active
<b>Shophouses (4)</b>	<b>Transition Plaza (6)</b>	<b>Culture &amp; Tourist Center (5)</b>
Concept of Street, Environmental Comfort	Concept of Identity, Environmental Comfort	Concept of Sociability
		
Culinary activity in the linear street, shopping	Formal activity or big events, also informal activity such as recreation	Place for formal socialization, equipped with educational function
<u>Criteria of Sense of Place:</u> Visual image, identity, activity, comfort, sociability	<u>Criteria of Sense of Place:</u> Visual image, identity, activity, scale, comfort, sociability	<u>Criteria of Sense of Place:</u> Visual image, identity, activity, sociability
<u>Variable of Priority I:</u> Material, flexibility, commercial	<u>Variable of Priority I:</u> Flexibility, commercial, active	<u>Variable of Priority I:</u> Flexibility, active, diverse user, welcoming

**4. CONCLUSION**

The research is conducted to find criteria and variables of plaza with strong sense of place to achieve a sustainable city. There are eight criteria which are criteria of street, visual image, identity, activity, scale, accessibility, comfort, and sociability. The study of plaza typology represented by precedents were analysed with a scoring system to find variable of priority of plaza with strong sense of place. These variables of priority help to establish the main concepts of designing a plaza with strong sense of place for the case study. These variables of priority became the focus in improving Glodok’s main concern. Thus, we got four criteria derived from the numbers of variables of priority, which became the main concept of this research. Those four main concepts are the concept of identity, activity, street, and sociability. Due to many factors, there is one additional criterion which becomes one of the main concepts, which is the concept of environmental comfort. These five concepts are applied to Glodok to improve the sense of place throughout the area, to enhance and emphasize its identity, as well as to make the area more

liveable, by designing key points, which are entrance gate, opening plaza, commercial street, shophouses, transition plaza and culture centre.

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