# PUBLIC PERCEPTION OF VISUAL QUALITY OF CUT MUTIA MOSQUE PARK AS PUBLIC SPACE IN JAKARTA

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#### **Abstract**

Cut Mutia Park is a city park which is an integral part and attached to the main courtyard of the mosque cut mutia. This park is a green open space that serves as a public space and generate the aesthetics of the city. There are seven critical elements that need to be studied to determine the public's perception of the park. Knowledgeable public perception of these elements, useful for city authorities in the development of city parks for future. The results of the research showed that of the seven elements studied, only two elements of which will be a positive perception, namely aspects of cleanliness and coolness, while five other aspects got a negative perception. As a result, generally Cut Mutia Parks research object only gets the value perception of 0.24. Details of the value obtained by each of these aspects are: -0.52 for comfortability; +0.13 for cleanliness; -0.003 for freshness; +0.26 for coolness; -0.77 for harmony level; -0.42 for beauty level; and -0.32 for interesting presented. Low perception from respondents indicated that Cut Mutia Park need better design such that it can give added value to the mosque and the environment surrounding. At the end can be said that the city authorities need to further improve attention in structuring of the park, to makes Cut Mutia Park become more comfortable, interesting and favored by the public, and also strengthening the power of the mosque as the central point.

Keywords: Mosque garden, cut mutia park, city park.

# Introduction

The average of urban air temperatures during the dry season in Indonesia range at  $30^{\circ}$  -  $32^{\circ}$  Celsius [1], that is required for the natural elements that can lower the temperature of the environment, such as parks and urban forests. The availability of city parks can provide many benefits, especially usefullnes of the park as a tool for improving the quality of environment [2].

Aspects are examined in this study were developed from previous studies that discuss the role of public space as a place of outdoor activities and situation of pedestrian paths in crowded and dense settlements [3], [4]. Related to the importance role of the city park, the purpose of this study was to determine: (1) a sense of comfort while viewing or visiting the park; (2) cleanliness that's visible; (3) freshness; and (4) coolness before entering the park; (5) the level of harmony; and (6) beauty in the of the park structure; and (7) the attractiveness presented.

Observed objects of the research is the Cut Mutia Park, in Central Jakarta. Cut Mutia garden is a city park located in front of the Cut Mutia Mosque and attached directly to the front yard of the mosque. It makes Cut Mutia Park visually as an integral part of the mosque landscape.

Expected results are description of public perception and opinion to the situation or condition of the park that visible. Understands the public perception of city park provide benefits in the form of aspects that need to be improved by city authorities, so that the city parks are not only has an ecological function, but also have many social benefits for the community, such as: (1) increase the usefulness of city parks as public facilities, and (2) make the city space becoming more friendly for humans.

# City Park and Green Open Space

Open space can be: (1) green space planted with grass, trees, shrubs, or other plants; (2) green open spaces such as public parks and cemeteries; (3) school field; (4) playground; (5) public rest area; (6) plaza; and (7) other empty land [5]. Based on the EPA description (2015) mentioned

that the city parks are part of a green open space. Within the discussion framework about the function of urban green space, there are two functions of green open space, namely: (1) the main function, and (2) additional functions [2]. The main function of city park is to give an ecological benefits, the aditional function are to give more value to the city economy, environment, social, and culture. Associated with city park additional functions, its form can be a park, recreational functions, sports fields, and other supporting urban landscape [2].

# The Role and Function of City Park

City park has three main functions, are: (1) landscape function, (2) preserving the environment, function and (3) aesthetics function as a result of the diversity and composition of vegetation types [2]. City parks can also serve as a public space. To optimize its function, the garden arrangement needs to consider: (1) local climate, (2) order of space, (3) shade and green governance, (4) situation and environmental hygiene [3].

### Landscape Function of City Park

As a landscape buffer, the city park has two functions, are: (a) physical function, and (b) social function. Physically, the city park give the physical protection for the surrounding environment against the wind, sun rays, smell, and so on, meanwhile socially it's can be used as a place of social interaction for citizens, education facilities, and research [2].

# Comfortability and Environment Preservation Function of City Park

The limited extent of green open space as a result of physical development in urban areas is often accompanied by a decline of environmental quality [6]. The presence of city parks can reduce the decline with its role fairly broad, namely to: (a) freshen the air as the lungs of the city, (b) lowering the temperature of the city, (c) the living space of animals, (d) protection of soil erosion, (e) noise absortion, and (f) reducing the pollution [2]. Inadequate urban forest with diverse plants were laid out nicely will provide comfort and enjoyment place for residents [6].

Warming of air temperatures result in unrest and discomfort for urban residents. The comfortability of urban space can be improved by lowering the environment temperature [6]. The decline of micro temperature quality associated with the reduced of city parks and green open space that provide many vegetation absorber carbon dioxide ( $CO_2$ ).

As a tool to maintain the microclimate, the city park should be planted with trees which absorbing air toxic substances, and to absorb water into the ground [7]. Inadequate number of urban forests can make the ambient temperature becomes cooler, so the air temperature is not too hot in the daytime, and warmer at night because the canopy of trees can withstand radiation from the earth [6].

#### **Aesthetics Function of City Park**

The city open space usually located on the sidelines of solid walls, eg. road space, parks, and other open spaces. A situation that generated the by relationship of solid and void elements of urban space form a series of town hall which is physical and visual oriented. The phenomenon that was captured through visual contact will affect to one's perception of a place [8]. Visually, the city park will generate an open space that affects the aesthetic quality perceived by people. It involves size, color, shapes and texture of the vegetation and its relationship with the surrounding environment [2]. These factors have an important role in structuring the park and closely related to size, shape, color and texture of the plant as well as elements of the composition and its relationship with the surrounding elements [7].

### Social Function of City Park

Social function make an existence of city park as a public space for activities of the communities. The public spaces are area which can be used by the public provided by the city authorities [3]. For public interest, the public spaces should be: (1) responsive to the desires of users, (2) can accommodate their activities, and (3) can can accommodate the presence of various walks of life freely without discrimination. The fulfillment of these three aspects will make a meaningful of public space and increasing people interest to use the city park a place of social interaction. As public recreational functions, city parks should be able to create a comfortable and pleasant atmosphere, which applied aesthetics, good facilities, design and circulation [7].

# Visual Perception of Environmental Situation

The panoramic quality of a city is a major contributor in shaping public's perceptions to the

quality of a city due what are seen through the visual system [9]. Visual quality is something that's generated by vividness, intacness, and unity [10]. As one of element generated city landscape, the visual quality of city park is an important element that affects a person's perception to the quality of urban space.

Perception is the process of receiving information from the environment as well as explain how the humans understand and evaluate the environment as their final opinion in the interaction with the environment surrounding [10],[11]. Therefore, the perception is not just sensing, but leads to the interpretation of experience then the application of visual perception will provide more objective assessment [8], [11]. Meaning, visual perception studies can be used to determine the ones's or public's opinion of the city park which is located closely.

The environment situation that is perceived by a person can be described into sentences containing adjectives. The description can be extracted and measured by using a bipolar scale of attributes are opposites, which is known as the semantic differential and can be measured by a scale system to measure the perception of the observer [8]. An overview of measurement techniques using semantic differential scale can be seen in Figure 1.

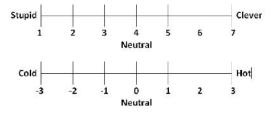


Figure. 1. Scale System of Semantik Differential

### Research Object: Cut Mutia Park

The research object is a city park that is united with the Cut Mutia Mosque, in Central Jakarta. It is named Cut Mutia Park that visually seen attached to the main yard of the mosque, so it becomes an extension of the mosque courtyard. Cut Mutia park is public open space filled with lush trees so it looks like an urban forest and become as an important visual object for the people passing nearby.



Figure. 2. Location of Cut Mutia Park

### Methods

Referring to the explanation of Osgood, Suci, and Tannenbaum about the use of the application of semantic differential scale system, and in order to explore people perceptions of: (1) sense of comfort; (2) cleanliness; (3) freshness and (4) coolness; (5) harmony and (6) beauty of composition; and (7) the people interest to go to the object, can be collected through the research instruments as presented in Table 1 [8].

Table 1. Instrument and Scale of Measurement

Semantic Differential			Scale	
Uncomfortable		Comfort	-2, -1, 0, 1, 2	
Dirty		Clean	-2, -1, 0, 1, 2	
Dry		Fresh	-2, -1, 0, 1, 2	
Hot		Cool	-2, -1, 0, 1, 2	
Not harmony		Harmony	-2, -1, 0, 1, 2	
Bad		Beauty	-2, -1, 0, 1, 2	
Not Interesting		Interesting	-2, -1, 0, 1, 2	

Further, the perception scale: -2, -1, 0, 1, 2 of this semantic differential developed into a range of assessment as shown in Table 2.

Table 2. Range of Assesment of Semantic Differential

Scale	Range of Assesment	Meaning
2	1,51 s.d. 2,00	Sangat baik
1	0,51 s.d. 1,50	Baik
0	-0,5 s.d. 0,50	Netral
-1	-0,51 s.d1,50	Buruk
-2	-1,51 s.d2,00	Sangat buruk

Referring to the explanation Singarimbun concerning the minimum number of respondents in the sampling, respondents were involved in this study were as many as 31 people [12]. Perceptions of respondents captured by questionnaire and recorded into the semantic direffential scale to calculate the average value in every aspect of research. To ensure the suitability of the situation and the direction of view seen by respondents, the respondents perception were collected using simulated situations of Cut Mutia Pakr through the medium of large photos. Environment simulation with large photographs is adopted from the explanation of Zube which suggest that the panoramic and wide angle color photographs is a valid simulation media of landscape.

### Results

Result of data processing shows that the average rate of situation is -0.24. The highest value is the coolness aspects of 0.26, and the lowest rate was in harmony aspect of -0.77. In detail, the perception of respondents to the Cut Mutia Park can be seen in Table 3.

Table 3. Public Perception of Cut Mutia Park

Aspect	Score	Meaning	Public Perception	Level
Comfortability	-0,52	Bad	Uncomfortable	6
Cleanlyness	0,13	Neutral	Average	2
Freshness	-0,03	Neutral	Average	3
Coolness	0,26	Neutral	Average	1
Harmony	-0,77	Bad	Not harmony	7
Beauty	-0,42	Neutral	Average	5
Interesting	-0,32	Neutral	Not interesting	4
Average	-0,24	Bad	Bad	

### Discussion

The data processing showed none aspects of the research that is got a good perception by respondent. From seven aspects studied, only two aspects which gained positive perception. The best best ranking was in the aspect of coolness with the value of 0.26, which indicates that respondents cannot expect to enjoy the cool atmosphere when visiting the park. Another aspect that gained a positive perception is the cleanliness with the value of 0.13. It means that respondents see that the level of cleanliness of the park in the average of scale.

Five other aspects perceived as negative by respondent, with the average value of -0.24. It's indicating that an the respondents feel the atmosphere of park is in average scale. Low perception given by the respondents indicated that visually Cut Mutia Park have not been able to provide positive benefits to improve the visual quality of the surrounding environment.

With more in-depth search, harmony in the arrangement of the park has a big influence on the low perception of the respondent Cut Mutia Park. Aspect of harmony gain the values of -0.77, which means bad and not harmonious. Poor perception of respondents are describe the lack of harmony in the layout of the park trees that dominate the content of the park. Other aspects which also received negative perceptions are: freshness aspect with a value of -0.03; attractiveness aspect with a value of -0.32; beauty aspect with a value of -0.42; and convenience aspect with a value of -0.52.

### Conclusion

The conclusion that can be drawn from the results of research is that generally the visual quality of Cut Mutia Park not meet the expectations of society. People will give good perception if the general situation perceived fit with their perception to the city park. Low levels of harmony that mixed with low levels of freshness and coolness of the park perceived by the respondents indicated that the public expects better arrangement patterns of vegetation, and expect freshness and coolness better.

Low perception of respondents to the beauty aspect show that the vegetation structure and other garden elements require better design such that Cut Mutia Parks can give added value to the mosque and the environment surrounding. Inadequate waste disposal sites which are

accessible and harmonious with the atmosphere of the park will be able to increase the public's perception of cleanliness.

At the end can be said that the city authorities need to further improve attention in structuring Park Cut Mutia. Combination of the development of important aspects of forming the park will make the place as a city park that is comfortable, interesting, and favored by the public, also strengthening the power of the mosque as the central point.

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### References

- [1] BMKG, 2014. Analisis Musim Hujan 2013/2014 Dan Prakiraan Musim Kemarau 2014. Badan Meteorologi Klimatologi Dan Geofisika Stasiun Klimatologi Klas II Pondok Betung, Tangerang, Maret 2014.
- [2] Sukawi, 2008. Taman Kota dan Upaya Pengurangan Suhu Lingkungan Perkotaan: Studi Kasus Kota Semarang. Paper Publish in Seminar Nasional Peran Arsitektur Perkotaan Dalam Mewujudkan Kota Tropis, Universitas Diponegoro, August 6, fs2008.
- Sadana, Agus S, 2014. Harapan Masyarakat [3] Terhadap Kualitas Ruang Publik Sebagai Tempat Aktivitas Luar Ruang Pada Kawasan Perkantoran Dalam Mendukung Kota Hijau/ Seminar Nasional Refleksi 30 Tahun Fakultas Teknik Konsep dan Implementasi Infrastruktur - Bangunan -Konstruksi "HIJAU" Mewujudkan Kota Hijau, Fakultas Teknik Universitas Warmadewa, October 17, 2014.
- [4] Sadana, Agus S, 2015. Ruang Pejalan Kaki Pada Kawasan Perukiman Mahasiswa Di Margonda Depok. Research Report Department of Architecture faculty of Engineering Universitas Pancasila, Jakarta.
- [5] EPA-United States Environmental Protection Agency, 2015. What Is Open Space/Green Space? Urban Environmental Program in New England.

- http://www.epa.gov/region1/eco/uep/openspace.html (Acessed on June 24 2015)
- [6] Nurlaili, 2014. Peranan Hutan Kota Dalam Peningkatan Kualitas Lingkungan Hidup. Paper in Engineering Department Politeknik Negeri Lhokseumawe. http://jurnal.pnl.ac.id/wp-content/plugins/Flutter/files\_flutter/1396930128ARTIKELH UTANKOTA2010Revisi7April2014.pdf (Acessed on June 16 Juni, 2015)
- [7] Karsono, Danarti, 2011. Peran Taman Balekambang Sebagai Pembentuk Estetika Kota. Jurnal Teknik Sipil Dan Arsitektur Fakultas Teknik Universitas Tunas Pembangunan Surakarta. Vol 9, No 13, Tahun2011.http://ejournal.utp.ac.id/inde x.php/JTSA/ article/ view/47 (Acessed on June 22, 2015)
- [8] Sanoff, Henry, 1991. Visual Research Methods in Design, Van Nostrand Reinhold Company Inc., New York.
- [9] Lang, John, 2005. Urban Design: A Typology Of Procedures And Products. Architectural Press, Burlington.
- [10] Smardon, Richard C., James F. Palmer., dan John Barone, 1986. Foundation for Visual Researc Project Analysis, John Willey & Sons, New York.
- [11] Laurens, Joyce Marcella, 2005, Arsitektur dan Perilaku Manusia, Gramedia Widia Sarana, Jakarta.
- [12] Singarimbun, Masri, 1995. Metode Penelitian Survey. LP3ES, Jakarta.
- [13] Handayani, Sri, 2001. Kajian Bentuk Dan Struktur Ruang Terbuka Hijau Kampus Upi Sebagai Hutan Kota. Jurusan Pendidikan Teknik Arsitektur FPTK UPI. Bandung.
- [14] Kustianingrum, Dwi., et.al. 2013. Fungsi dan Aktifitas Taman Ganesha Sebagai Ruang Publik di Kota Bandung. Jurnal Reka Karsa Jurusan Arsitektur Itenas Jurnal Online Institut Teknologi Nasional, No. 2, Vol.1. http://download.portalgaruda.org/article.php?article=88857&val=4292 (Acessed on June 8, 2015)
- [15] Soesanti, Siska., dan Alexander Sastrawan, 2006. Pola Penataan Zona, Massa, Dan Ruang Terbuka Pada Perumahan Waterfront. Jurnal Dimensi Teknik Arsitektur, Vol. 34, No. 2, December 2006 (115-121). http://dimensi.petra.ac.id/index.php/ars
  - http://dimensi.petra.ac.id/index.php/ars/article/viewFile/16543/16535 (Acessed on June 25, 2015)
- [16] Tabloid Rumah. Pemberdayaan Taman Kota Untuk Terapi Sehat, Tabloid Rumah,

- September 19 October 2, 2006 (26). http://qpramukanto.staff.ipb.ac.id/files/ 2010/03/07-Pemberdayaan\_Taman\_Kota\_ Terapi\_Sehat.pdf (Acessed on May 26, 2015)
- [17] Rubenstein, Harvey M, 1992. Pedestrian Malls, Streetscapes, And Urban Spaces, John Willey & Sons, New York.
- [18] Soefaat., et. al., 1997, Kamus Tata Ruang, Direktorat Jenderal Cipta Karya Departemen Pekerjaan Umum dan Ikatan Ahli Perencanaan Indonesia, Jakarta.