



Application of The Garden City Concept in The Housing Area of The New City Of Parahyangan

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ABSTRACT

The community's need for housing has increased in line with population growth. Kota Baru Parahyangan is a satellite city whose urban development and planning have a structured and interesting concept. Kota Baru Parahyangan Housing is a residential area in West Bandung Regency, and a city-scale project which has an area of more than 1250 hectares in which there are various kinds of supporting facilities. The planning concept carries the Garden City concept as an effort towards sustainable and environmentally friendly housing. Garden city is one of the contemporary efforts in urban design to pay more attention to the environment and adapt to the times. The purpose of this study was to determine the extent of the application of the Garden City concept in the residential area of Kota Baru Parahyangan. The research method used is descriptive qualitative with data collection methods based on observation and literature review. The points that will be discussed in the design of the Kota Baru Parahyangan housing area are: land use or zone zoning, city center, supporting facilities, residential housing, service facilities, green area, and circulation path. Based on the analysis of existing data, the Garden City concept in the Kota Baru Parahyangan Residential Area has been implemented quite well because it is in accordance with its main principles.

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1. INTRODUCTION

West Bandung Regency is one of the administrative areas of the city or district in West Java Province which has an area of 1,305.77 KM² based on the official website of the Provincial Government of West Java 2021. West Bandung Regency is located between 60.373' to 70.131' South Latitude, and 1070.110' to 10701440'06" East Longitude. In 2021, West Bandung Regency has a registered population of 1,788,336 with a population density of around 1.311/km² and has an average population growth rate of 0.07%.

Over time, population growth in an area will affect developments in the area, causing the community's need for housing to increase (Yulita 2020). There are 153 housing estates registered with the West Bandung Regency Housing and Settlement Service, both subsidized and non-subsidized (Department of Housing and Settlement West Bandung Regency 2020). Of the many existing housing, there are several housing that have a fairly good and structured housing development concept, one of which is the object of research that will be discussed this time, namely the Kota Baru Parahyangan housing.

Kota Baru Parahyangan Housing is a city-scale project that has an area of more than 1250 hectares in which there are various kinds of supporting facilities. Kota Baru Parahyangan is a satellite city whose urban development and planning have a structured and interesting concept (Sihite and Soewarno, 2021). The concept of physical development of Kota Baru Parahyangan is guided by 3 main pillars, namely the Pillar of Education, Pillar of Culture, and Pillar of History. For the education pillar, Kota Baru Parahyangan has many formal and non-formal education facilities, residential thematic parks with educational backgrounds, and community activities themed education (Faisyah, 2019). Then for the cultural pillar, Kota Baru Parahyangan uses Sundanese cultural roots for naming street names and housing clusters, as well as organizing cultural-themed community activities (Rahadian et al., 2013). For the historical pillars, Kota Baru Parahyangan adopts the garden city concept in regional development planning and also uses Indo-European architectural themes in several house and shophouse designs in several residential areas.

Kota Baru Parahyangan uses the concept of garden city planning. This concept was first introduced by a British scientist who is also a city designer, Sir Ebenezer Howard through his book entitled "Tomorrow: A Peaceful Path to Real Reform" first published in 1898. This concept has some uniqueness because in its simplicity and various details it consists of 3 (three) main elements, namely decentralization or centralization, garden or park, and city or city (Zuraidi and Sawab, 2011). In addition, this concept is a combination of urban design reform and the integration of nature as the basis for planning. A city that adopts the garden city concept has a balance in residential areas and industrial areas that are connected by public facilities and surrounded by green areas, both parks and plantations (Nuzir, 2012; Lewis, 2015). The research discussed this time aims to determine the extent to which the application of Sir Ebenezer Howard's Garden City concept in the development planning of the Kota Baru Parahyangan Residential Area.

2. RESEARCH METHOD

Method and Description of Research Object

The research method used by the author is descriptive qualitative research. This study does not use statistics but analyzes or discusses data that has been collected, either in the form of observations or from a literature review.



Figure 1. Parahyangan New Town Masterplan
(Source: kotabaruparahyangan.com 2021))

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Kota Baru Parahyangan is located in West Bandung Regency which has direct accessibility to the Padalarang toll gate and borders the Saguling Lake. Kota Baru Parahyangan is one of the largest residential areas in the Greater Bandung area which has an area of more than 1250ha with various kinds of facilities in it. This residential area is managed by a developer or developer on behalf of PT. Belaputera Intiland is one of the companies incorporated in PT. Lyman Group. In its development, Kota Baru Parahyangan pays attention to the balance of economic aspects, social aspects, and environmental aspects to become an environmentally friendly city as well as sustainable development.

3. RESULTS AND DISCUSSION

3.1 Garden City

Garden City is a work by Sir Ebenezer Howard in 1898 that combines urban design reform and the incorporation of nature as a basis for planning (Nuzir, 2012). According to (Suwanto, 2018), the ideal concepts of Sir Howard's Garden City include:

- Shape The area is circular and divided into 6 areas in the form of concentric radials and surrounds the city center which is connected by road and rail lines.
- The city center and the outskirts of the city are connected by a large boulevard that divides the area. There is a park surrounded by public facilities in the city center.
- The main road divides the city center consisting of parks and public facilities with smaller urban areas.
- The buildings face each other to the road that forms a concentric radial pattern towards the center of the area.
- In the outer ring of Garden City, there are industrial areas or work areas such as factories, warehouses, coal, and wood processing. In this area, there is a railway line that connects it with plantation or agricultural areas.

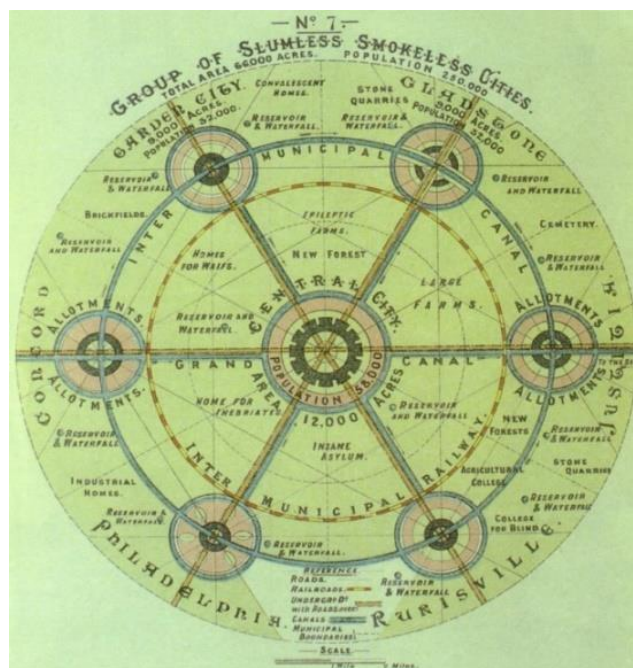


Figure 2. Garden City by Sir Ebenezer Howard
(Source: commons.wikimedia.org 2021)

Over the last few decades, this concept has survived and may still be applied because it has a strong character so it becomes an attraction for urban design (Feng, 2021). In addition, this concept also has a balance of ideas and harmony with the contemporary environmental concept in sustainable development (Abel, 2010). Over time, the garden city concept also experienced several inconsistencies in its application in several cities or large countries that have a population that exceeds the ideal capacity of this concept (Vernet and Coste, 2017). Until now, the garden city concept has received various inputs and additions so that it can adapt to today's urban developments (Zuraidi and Sawab, 2011).

Although times have changed, the main principles of the garden city concept are still the same, namely land use, activity centers (Central Place), circulation paths (Radial Avenue), green areas (Green Belt), and the relationship between functions and activities (Gatarić et al., 2019; Sufian et al, 2019). Meanwhile, according to (Kesuma, 2016; Sharifi, 2016) The main principles of the garden city are Civic Center (city center/region) in the form of open space or green open park surrounded by public buildings, Crystal Palace (public facilities located outside the city center/region), the ring which is outside Crystal Palace (housing complex or settlement) facing the road, and finally the outermost ring (service facilities) in the form of markets, warehouses, factories, hospitals, police stations, and others.

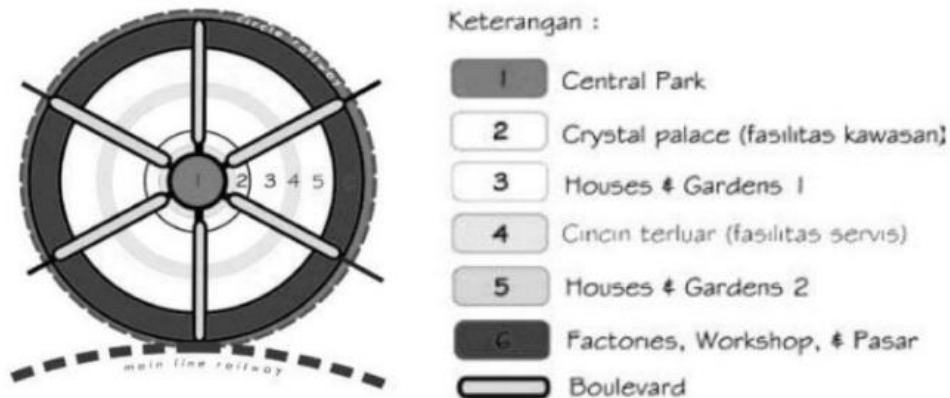


Figure 3. Garden City Zoning Principle
(Source:(Kesuma 2016))

3.2 Application of Garden City to Parahyangan New Town Housing

Garden city is one of the contemporary efforts in urban design to pay more attention to the environment and adapt to the times. The points that will be discussed in the design of the Kota Baru Parahyangan housing area this time are: 1) Land Use or Zone Zoning; 2) City Center; 3) Supporting Facilities; 4) Residential Housing; 5) Service Facilities; 6) Green Area; 7) Circulation Path.

1) Land Use



Figure 4. Zoning Masterplan for the New City of Parahyangan
(Source: Author's Analysis 2021)

In the picture above, you can see the zoning of the master plan of the Kota Baru Parahyangan residential area. The cream color indicates the residential area, the red color in the area of the supporting facilities and service facilities, the green color is the green open space. The coefficient of this area planning is 45% built area and 55% green area.

2) City Center

In Figure 4 above, it can be seen that the red color is in the downtown area of the Kota Baru Parahyangan residential area. In this area, there are supporting facilities in the form of educational facilities, both formal and non-formal, which is the main characteristic or concept of this residential area, namely the education pillar. In addition, there are commercial areas in the form of shophouses, IKEA, and the possibility that in the future a mall or shopping center will be built.



Figure 5. Town Center Kota Baru Parahyangan
(Source: Author's analysis based on (kotabaruparahyangan.com 2021))

3) Supporting Facilities

Based on the zoning of the Masterplan in Figure 4, it can be seen that the red color is in the area of support facilities and also service facilities in the residential area of Kota Baru Parahyangan. The location of these facilities is spread over various areas to make it easier for users or residents of housing. In this area of supporting facilities, there are various kinds of facilities ranging from religious facilities, sports facilities, recreational facilities, educational facilities, offices, commerce, and various other public facilities which can be seen in Figure 6.



Figure 6. Supporting Facilities
(Source: Author's analysis based on (kotabaruparahyangan.com 2021))

4) Housing and Settlements

Based on the zoning of the Masterplan in Figure 4, it can be seen that the cream color is a residential area scattered in various corners of the area. This residential area is expected to reach more than 40 clusters and can accommodate more than 100,000 families in it. The naming of this residential cluster is taken from the name of the figure in Pasundan land and also as the main characteristic or concept of this residential area, namely the cultural pillar. In addition, there is the concept of Indo-European architecture in the Bandoeng Tempo Doloe corridor which is one of the concepts of the pillars of history. An illustration of the housing complex in Kota Baru Parahyangan can be seen in Figure 7.



Figure 7. Parahyangan City Baru Housing Complex
(Source: Author's analysis based on (kotabaruparahyangan.com 2021))

5) Service Facilities

Based on the zoning of the Masterplan in Figure 4, it can be seen that the red color is the facility area. The service facilities in this residential area consist of various functions, including Cahya Kawaluyan Hospital, Kertajaya Police Station, West Bandung Regency Fire Department, Town Management & Marketing Gallery Management Office, and various other facilities which can be seen in the picture. 8.



Figure 8. Service Facilities

(Source: Author's analysis based on (kotabaruparahyangan.com 2021))

6) Green Area

Based on the zoning of the Masterplan in Figure 4, it can be seen that the green color is an area of green open space from the Kota Baru Parahyangan residential area. However, the green area in this residential area is not only in the picture above but is spread over various areas such as in residential areas that have themed parks, parking areas, pedestrians, and so on. In this area planning, the coefficient of the green area reaches 55%

7) Circulation Path

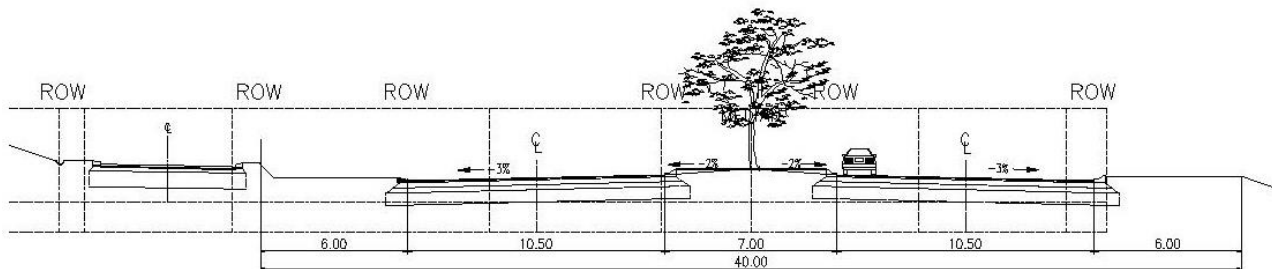


Figure 9. Main Road ROW 40
(Source: Author's Analysis 2021)

Based on Figure 4, it can be seen that all building functions are connected by roads or circulation paths. On the main road from the main gate of this residential area, it has a width sufficient for 3 cars in one direction or about 10 meters which has a road ROW of 40 meters, which can be seen in Figure 9. Meanwhile, roads in residential areas and other corners of the city have various variations ranging from 5 meters to 10 meters.

4. CONCLUSION

The Kota Baru Parahyangan residential area carries the concept of Garden City planning by Ebenezer Howard. This concept is an effort towards a sustainable and environmentally friendly city. The above discussion can be concluded in the table below:

Table 1. Application of Garden City

No	Garden City Concept	Ideal	Application at KBP
1	Area Shape	Concentric Radial	KBP Masterplan area extends linearly
2	liaison	A large road or boulevard has a garden surrounded by various facilities	Along Main Road ROW 40m there is a garden and facilities
3	Main road	Share facilities & parks with smaller cities	The main road connects various clusters
4	Building Pattern	Face to face towards the city center	Along the road, buildings are facing each other towards the city center
5	Industrial Area	Being in the outer circle	Does not have an industrial area but has various points of commercial and commercial areas
6	Land Use	Most of it is green land, then residential area, and some facilities	45% of the built area consists of residential and commercial 55% green area
7	City center	Right in the middle of the city because it is radially concentric	Not radial but enough in the middle of the master plan
8	Supporting facilities	Places of education, libraries, worship	Have a place of worship, & a place of education
9	Residential Housing	Has 6 small towns around the city center	So far, there have been 20 housing clusters
10	Service Facilities	market, warehouse, factory, hospital, police station	There is a shophouse as a market, a police station and also a hospital
11	Green Area	Most of the green areas are parks and plantations	Most of the green areas are parks & trees

12	Circulation Path	A large road or boulevard that divides the area to the city center	The main road with a width of 40m ROW leads to the city center
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Source: Author's Analysis 2021

Based on the results of the discussions that have been carried out, the application of the Garden City concept in the Kota Baru Parahyangan Residential Area is quite good, if the percentage reaches 85% of the existing concept. Although the shape of this area does not have a concentric radial characteristic, the main principles of this concept have been well fulfilled. This residential area has a city center consisting of various educational facilities as well as commercial facilities. The linkages between supporting facilities spread across various areas and housing are well connected by wide and comfortable circulation paths. The green area coefficient is quite large, namely, 55% spread over various areas in this region.

5. REFERENCE

- Abel, C. (2010). The vertical garden city: towards a new urban topology. *CTBUH journal*, 2(1), 20-30.
- Evalina, E., & Sawab, H. (2011). Garden City': The Suitability of Its Principles as a Model to The Contemporary Planning. *NALARs*, 10(1), 17-28.
- Faisyah, R. (2019). The Concept of Recreational Architecture in Library Design in Kota Baru Parahyangan (KBP) West Bandung Regency. *TERRACOTTA Journal of Architecture.*, 1(1), 57-67.
- Feng, Q. (2021). Reviewed Interpretations and Inspirations on the Development and Strategies of Garden City Theory in Singapore. *Journal of Architectural Research and Development*, 5(3), 7-13.
- Gatarić, D., Belij, M., Đerčan, B., & Filipović, D. (2019). The origin and development of Garden cities: An overview. *Zbornik radova-Geografski fakultet Univerziteta u Beogradu*, (67-1), 33-43.
- Kesuma, Yunita. (2016). Land Use and Zoning of the Yogyakarta Kotabaru Cultural Heritage Area, Based on the Garden City Concept. *LOSARI: Journal of Urban and Settlement Architecture*. 1(2), 117–22.
- Lewis, J. (2015). Preserving and maintaining the concept of Letchworth Garden City. *Planning Perspectives*, 30(1), 153-163.
- Nuzir, F. A., and Primadona, G. I. (2012). Education-Based Garden City. *Journal of Architecture, University of Bandar Lampung*, 1(3), 19–26.
- Rahadian, E. Y., Wahab, F., Syaputra, H., & Setiawan, A. (2013). Kajian Karakteristik Bangunan Ikonik Pada Gedung Puspa Iptek Kota Baru Parahyangan. *Reka Karsa: Jurnal Arsitektur*, 1(1), 1-9.
- Sharifi, A. (2016). From Garden City to Eco-urbanism: The quest for sustainable neighborhood development. *Sustainable Cities and Society*, 20, 1-16.
- Sihite, R. P., & Soewarno, N. (2021). Penerapan Prinsip Nature in the Space Dan Nature of the Space Pada Healthy Plaza Avenue Di Kota Baru Parahyangan. *JMARS: Jurnal Mosaik Arsitektur*, 9(2), 540-551.
- Sufian, Safitri Dewi, Yohannes Firzal, and Mira Dharma Susilawati. 2019. "Application of Garden City Design Principles in Central Business District Design." *MARKA (Architectural and C`ity Media): Journal of Scientific Research* 3(1):41–46. doi: 10.33510/marka.2019.3.1.41-46.
- Suwanto, Noor. 2018. "Changing the Image of the New City of Yogyakarta." *ARCADE Journal of Architecture* 2(3):121. doi:10.31848/arcade.v2i3.81.
- Vernet, N., & Coste, A. (2017). Garden cities of the 21st century: a sustainable path to suburban reform. *Urban Planning*, 2(4), 45-60.
- Yulita, Leli. 2020. "Implementation of the Delivery of Housing and Settlement Infrastructure, Facilities and Public Utilities (PSU) in the City of Tasikmalaya." *JAK PUBLIK (Journal of Public Administration & Policy)* 1(3):90–95.