An analysis of the spatial phenomena of women in Cigondewah Fabric Centre, Bandung, Indonesia

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Abstract. The Bandung City government has established the Cigondewah fabric centre as a strategic commercial location in Bandung. This policy leads to the conversion of the settlement area into a commercial area, which creates spatial limitations for women in this area. Yet, it is vital to consider the subject of space as the sustainability of the environment depends on human as the subjects in the space. In the case of Cigondewah fabric centre, the government should consider women because women experience space differently to men. Men can freely adapt to changes in space but women should be given more freedom. This is the case because women have specific physical values and religious limitations affect cultural norms. The objective of this paper is to reconstruct the spatial phenomena of women in Cigondewah. This study uses a qualitative method with an inductive approach based on several established spatial theories. Based on the findings, the study proposes a zoning classification that reflects the spatial phenomena of the women. Moreover, the paper proposes policy recommendations regarding the spatial conversion to have more consideration for women as subjects of space.

1. Introduction

Cigondewah was a residential area that is converted into a centre of fabric trade. The fabric trade in Cigondewah started when a merchant opened a fabric shop on Cigondewah’s main street. This inspired the neighbours to open similar fabric stores, which led to the conversion of many buildings from residential into commercial functions in Cigondewah. This shift is supported by government policies that designated the Cigondewah Area as one of the priority locations for fabric trade in Bandung City. These policies led Cigondewah to have two dominant activities: residential and commercial functions. The fabric that is sold in Cigondewah originates from industries in Bandung, Sumedang, and Greater Jakarta and has many varieties such as sivon, brukat, songket, cotton, and sari India. The popularity of Cigondewah significantly increases around Eid al-Fitr, which is evident from the great increase in the number of domestic buyers and customers from neighbouring countries such as Malaysia, Singapore, and Brunei Darussalam. Cigondewah is recognized internationally and even has its own international fabric supply chain. The popularity of this area as a centre of fabric trading has become an attraction that boosts the economy of Bandung City.

However, Cigondewah’s increased popularity as a commercial area leads to new social and cultural problems. Due to the area’s dual function as a commercial and residential area based on Bandung City’s Detailed Spatial Plan (RDTR SWK). Indonesia is ideologically based on Pancasila and the constitution, which explicitly state that women have the same rights as men. There are three
dimensions to acknowledging the role of women in society, i.e., (1) enhancing the position and role of women; (2) improving the partnership between men and women; and (3) the double role principle, which encompasses concepts such as compatibility, harmony, and balance for safeguarding their role in society [1]. Government intervention is vital in creating a situation that reflects women as empirical objects of study.

Women’s development and gender equality has been a long-term international agenda. For instance, the New Urban Planning advocated by the CAP sets out a normative proposition that builds on traditions of planning and on good practice from today such as gender-aware planning. Moreover,

> “in October 2006, a concept note was prepared by UN-HABITAT on “Revisiting the Role of Urban Planning” as part of the preparatory process for the 2009 Global Report. The paper sought to consolidate UN-HABITAT’s thinking with regards to the focus and contents of the 2009 Report. In December 2006, UN-HABITAT commissioned an issues paper on “Revisiting Urban Planning”. The aim of this paper was to define the key issues in revisiting the role of urban planning and suggest a conceptual framework and draft outline for the 2009 Report. The paper made no explicit reference to gender goals and the need to address gender inequality in a systematic way in the GRHS. It could well be that the terms of reference did not require it although given CAPs commitment to inclusive planning it is a surprising omission. The Fourth working meeting of HS-Net in Monterrey in Mexico in 2007 was designed to provide UN-HABITAT with expert advice on the 2009 report with the theme of planning for urban sustainability. Work on the SWC Report which was finally published in 2008 had already concluded that the spatial poverty trap was marked by six challenges, one of which was the high rate of gender disparity” [2]

The awareness of the need to empower women through their roles in society by governments all over the world starts to increase. This is reflected in the fifth Sustainable Development Goal, which emphasizes gender equality and the need to empower all women and girls, and “to recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate”. This passage shows the awareness by governments of the importance of women. Although the SDG’s explicitly state the importance of women, it is incorrect to say that women and men are equal. In fact, women have a specific important role compared to men as women are the main factor to ensure the continuity of mankind [3].

The importance of women is emphasized in UN-Habitat’s 2009 Global Report on Human Settlements which stresses the role of women in the development of sustainable cities [1]. Consequently, urban development policies must consider the roles of women in society. In addition, urban planning policies should observe socio-cultural aspects of planning [4]. This view is supported by research from Frankenhaeuser [5] who compared the neuroendocrine response to stress in humans. This study found that stress in women is not observed as a physical condition but by instability in their emotional states such as anxiety, anger, depression, and somatic disturbance which is less observed in men. Based on these findings, this paper aims to describe the conditions of women in Cigondewah.

2. Methods

This paper explores the roles of women in Cigondewah commercial fabric centre. The paper analyses the interactions of women in the case study area. The data is collected from primary sources by conducting field observations and interviews. During the interview process, the authors used snowball sampling to select respondents based on recommendations from previous interviewees. The secondary research data, such as urban planning design for Cigondewah, were primarily collected from Bandung City’s Spatial Planning Office (Dinas Tata Ruang), Cigondewah Rahayu Urban Village, and Cigondewah Kidul Urban Village. The study applies an inductive and qualitative analysis approach. The qualitative analysis for this study is based on Creswell [in 6] as a process of organizing
and preparing data, reading or looking at all data and coding it to generate a description and interrelating theme, and to interpret the meaning of theme. The research approach for this paper is as follows:

- Dividing the research area into three parts;
- Collecting data through field observations and socio-economic data in all three parts of the study area;
- Coding the data based on the time of the survey;
- Making groups based on the area;
- Observing the relationship between data from physical, social, and economic perspectives;
- Interpreting the relations between the data;
- Drawing conclusions based on the interpretations.

Lastly, this paper proposes recommendations for spatial policies, especially for the development of Cigondewah.

3. Result and Discussion

3.1. The Phenomena in Cigondewah Fabric Trading Centre.

This chapter introduces the historic and recent conditions of Cigondewah fabric trading centre. It also explains the spatial policies for the development of this area. This introduction will provide the reader with a general overview of the area and an understanding of the spatial policies that facilitate its development.

3.1.1. The History and Current Conditions of Cigondewah Fabric Trading Centre. In 2006, Bandung City designated Cigondewah as a fabric trade centre. The economic potential of this area is supported by its strategic location on the main road that connects the east (Cileunyi) and west (Padalarang) of Bandung which makes it easily accessible for consumers. The administrative location of the area is in the urban villages (kelurahan) of Cigondewah Kidul and Cigondewah Rahayu, Bandung Kulon Sub-District, Bandung City. As can be seen in Figure 1, Cigondewah fabric trading centre has an area of 4.23 ha. It has 249 fabric stores, 211 of which are one-story permanent buildings while 38 are two-story buildings. Thirty-two buildings (13%) have a dual function and are also used for living. Based on the field survey, there are 128 male workers and 37 female workers in this area. The area seems inappropriately ordered and designed as the location is marked by only a sign. Furthermore, around noon, there are often traffic jams near the area caused by the unloading of commodities. The unloading uses parts of the main road because some of the stores lack proper space for unloading. Moreover, public facilities such as mosques and cafes are located ineffectively due to the informal development of the location.

Bandung’s Regional Regulation No. 18 Year 2011 concerning Urban and Regional Planning of Bandung City classifies Cigondewah fabric trading centre as asub-district and neighbourhood facility. This indicates that the fabric trading centre is legally regulated. The consequence of this is that all the developments within this area need to support its main function as the commercial area. However, the government was late in drafting its planning regulations and this location had developed unchecked, creating a traffic problem in its surroundings.
3.2. The Study of Phenomena in Space

This paper explores the physical, social and economic conditions within the case study area. It explains comprehensively about the stores that operate in the area and the stakeholders in the research location. Furthermore, the study interprets the spatial conditions of the women in the location.

3.2.1. Exploring the Phenomena of Women Involved in Male Activities

This exploration concentrates on the activities of male fabric sellers in the location, specifically males who carry out the daily managerial activities of the store. Based on the field observations, three stores were selected as the cases, i.e., those of Mr Gita, Mr Budi, and Mr Aan. They own the buildings that they use as a fabric store. On average, they have sold fabric for 15-20 years. Mr Budi and Mr Aan are second-generation store managers, unlike Mr Gita (67 years old) who is the first generation to manage his fabric store. The average size of each building is around 50-110 m². Mr Gita and Mr Aan come from Bandung, while Mr Budi originates from Bogor, another city in West Java Province. The sellers are junior and senior high school graduates. Two of the sellers own more than one store in the location and they have an average income of IDR 3-7 million per week. The stores owned by Mr Gita are well-maintained and have adequate natural light inside the building although the fabric is organized unsystematically. Mr Gita’s stores only have commercial purposes while the stores of Mr Budi and Mr Aan have a dual function for commercial purposes and as a place for living.

Mr Budi (100 birds) and Mr Aan (30 birds) both keep birds as a hobby. This hobby can affect hygiene in their living environment. Mr Budi lives with his wife and two children. He complains that his neighbourhood is overcrowded and hot, which affects his children who are always fussy when he tells them what to do. He restricts his children to play outside for their own safety. Mr Budi’s wife helps in the daily management of the store when he attends to business outside the city. This is a daunting task for Mrs Budi because she has two responsibilities as the manager of the store and as the mother of her two children. Mr Budi even admits that his wife has an anxiety problem when she has to take care of her children.

Mr Aan lives with his wife and his two children. His first child is in elementary school while his second child is not in formal education. He experiences the same problem as Mr Budi as his second child is also fussy at home due to the heat, the traffic, and the difficulty of playing outside. To solve this problem, Mr Aan has to take this child shopping in the nearby store. Mr Aan’s wife also has two tasks of helping the daily management of the store and taking care of her two children. She also complains that taking care of her children gives her a headache. She even has to take medication to deal with her headaches. Figure 2-3 shows the schematics of Mr Aan’s house and Mr Budi’s house.
Figure 2. The location and condition of Mr Budi's shop.

Figure 3. The location and conditions of Mr Aan's shop.

The field observations have shown that the women in an environment that is dominated by men have a dual function as the store manager and as a mother. While the men have a way to express themselves through their hobbies in their own space, this is difficult for the women. As a result, suffering from anxiety and physical problems such as headaches is a common condition for women because they have no activities to relieve their stress.

3.2.2. Exploring the Phenomena of Women Involved in Women Activities. Several stores are managed by women such as stores of Mrs Chika, Ririn, Novi, Astri, Dewi, and Dahlia. Most of them are married except Mrs Dewi and Ririn and these women took over the store management from their parents. The women have similar educational attainment, i.e., most of them are junior and senior high school graduates. The average revenue from their stores is IDR 5-7 million per week. The women stated that they mostly manage their family members including their husband. Mrs Novi stated that her
store is privately owned and she already has two stores in the area. She has owned her stores for nearly fifteen years. The first store is a two-story building and the second store is a one-story building. Her mother manages the two-story building while she manages the second store.

The average size of the stores managed by the women is 27-65m². Furthermore, most of the stores have a dual function for commercial activities and as a place for living. The building design varies between one-story buildings with living quarters at the back (Mrs. Cika’s store) and two-story buildings with a living place on the second floor (Mrs. Dahlia store). Meanwhile, Mrs. Astri has two stores, one of which is managed by her husband. She does not live in the same building as her store. However, her children still have to spend time at the store after school. The free time for single women is spent on their own hobbies such as knitting and designing clothes as told by Mrs. Ririn and Mrs. Dewi. Meanwhile, married women do not have time for hobbies because they spend their free time doing chores and taking care of their children. Their children also tend to be fussy at home. To cope with this problem, the mothers give their children a smartphone to keep them silent. Most of the married women in the location complain about this problem but not the single women. The schematics of the neighborhood conditions in this location can be seen in Figure 4-5.

![Figure 4](image1.png)

**Figure 4.** The location and condition of Mrs. Cika’s shop and house.

![Figure 5](image2.png)

**Figure 5.** The location and floor plan of Mrs. Dahlia’s shop and living quarters.

3.2.3. **Interpreting the Phenomena of Women in a Physical Space.** Based on the above exploration, the space for women can be described by several characteristics, for example, their spatial territory is behind the store cashier. Moreover, men have the opportunity to do hobbies in their space in the store,
while married women have limited time for hobbies in their space. Notably, married women are restrained in their domestic task, while single women have more free time to spend on their hobbies. Furthermore, the design of the buildings also affects the emotional condition of women. Working and living in buildings with more than one floor is tiring for married women. This can become more stressful if their children demand to be allowed to play outside.

The high-stress levels of married women in this location are indicated by frequent reports of anxiety problems, insomnia, panic, and sore muscles. This observation is in line with the study by Frankenheuser [5] that found that the stress of women is indicated by similar conditions. This situation can cause problems in the next generation. As Judith Flanders [3] stated that if a woman were defined by her ability to rear the next generation, and her house is crucial in shaping those children, then the woman's ability to do domestic work is pivotal; it reflects her value. This statement reflects the importance of women to shape the future generation. Davis [7] reported that in Muslim countries, specifically Pakistan, women are actors who can create social change. This is also the case for the women in Cigondewah fabric trading centre most of whom are Muslims. Figure 6-7 schematically shows the women’s area in Cigondewah fabric trading centre. Besides women as the actors, the building itself is also important as a medium in shaping human character. It reflects the person who fills it, especially the place of living.

3.2.4. Interpreting the Phenomena of Women in Economic Activities. The study in Cigondewah fabric trading centre shows that most of the women are second-generation owners who are primarily junior and senior high school graduates who have no intention of continuing their study to a higher degree. They also have little intention of looking for other jobs besides selling fabric. This can be attributed to their average income of IDR 5-7 million per week which is irresistible for them. The involvement of women in economic activities tends to decrease the amount of quality time spent between a mother and her children. It is common for married women who work in the stores to give their children a smartphone and take them shopping at a nearby market to cope with their children’s emotional problems. This action will affect the child’s mental state because attention and care from parents are vital in a child’s development phase. This is especially true for mothers as stated by Valentine [8]: “mothers are still considered the primary caregivers, and therefore bear most of the responsibility for supervising their children, and taking care of their safety”. The economic activities of the mothers restrict the attention they can give their children. This is observed from the fact that there are many married women who own more than one store in this area. This condition shifts women’s tasks from nurturing the future generation to become the main provider for the family. The shift is also supported by the attitude of the older generation who have no problem to pass their business to a woman (such as Mrs Novi). Furthermore, there are many cases where the husband gives the managerial authority of a second store.
to his wife. This indicates that economic needs are the main factor that drives human decisions. This is a common problem in this modern-day and age.

3.3. Cigondewah Fabric Trading Centre as a Sustainable Space for Women.

The women in Cigondewah are economically productive. It can be observed empirically from their simultaneous activities of selling fabric, housekeeping, and doing hobbies. Their productivity is based on the economic demand due to spatial policies and the attraction of the area. This is reflected by the space itself which has a dual function as a place for commercial and household activities. The spatial activities of women are limited by social activity and an effort to fulfill financial needs. This situation will result in conflicts as women need to manage their time as a mother to their children and their role towards their husband [9]. Moreover, men and women have different characteristics in a hormonal and biological sense[10]:

"Our review focuses on difference and inefficiency concepts in an attempt to show why gender differences found in tasks measuring spatial ability and competence, and in records of spatial behaviour at different scales, might be explained. It is important to mention the controversy that often surrounds explanations of the cause of gender differences in spatial ability. These differences are usually explained as either being 'biologically' determined (anatomical, genetic, hormonal, brain lateralization) or as resulting from culturally defined experience and need factors".

Cigondewah fabric centre is a spatial manifestation that reflects the socio-cultural behaviour of its actors. Related to this, there are five relevant elements within space that shape the spatial structure that binds its actors: (1) home range, (2) core area, (3) territory, (4) jurisdiction, and (5) personal distance or space [4]. The spatial pattern in Cigondewah shows a lengthwise pattern that follows the road network as seen in Figure 8.

![Figure 8. The spatial structure of Cigondewah Fabric Centre.](image-url)
distance is limited by the crowdedness that reduces personal space. Furthermore, there is no binding space because no core area is created. Such a core area is what unites space; without it, an area will not be well-integrated and coordinated. The condition where personal space is limited restricts the movement of the residents in the area, including women. In order to create a spatial structure that binds the area, the government should consider the five elements as proposed by Rapoport for Cigondewah. This is because development is not only limited to the physical structure but also to the socio-cultural situations of actors in space.

Figure 8 shows that Cigondewah has a lengthwise physical structure which follows the main road. The field observations in the west and east corridor revealed that there are 32 one-story buildings (12.85%) while the remaining is two-story buildings. The first floor of most of these two-story buildings is used as a commercial area, while the second floor is for living. This condition shows that Cigondewah has a dual spatial function as a commercial and residential area. This dual function can affect the behaviour of the residents (see [4]) because space is the manifestation of the activities and emotions of its actors, as stated by Brown and Pickerill. The zone plan for Cigondewah fabric centre does not explain the behavioural setting that is formed as can be seen in Figure 9 below.

![Zoning plan](image)

**Figure 9.** Zoning plan (RDTRK SWL Tegalega).

The zoning plan only focuses on spatial functions without considering the spatial behavioural setting. However, this behavioural setting is important because of the dual function of the area as a residential and commercial area which differs from areas with a singular function. Consequently, women in Cigondewah face stressful living conditions. Dealing with the complexity of mixed-use spatial areas is not as simple as merely planning the space from a functional perspective. It also involves the needs of the actors within the area in relation to the urban planning design. For example, Braubach et al found that green spaces can reduce stress [11]. Yet, observations in Cigondewah show that the amount of green space is very low. i.e., the Cigondewah area only has 3.64% (Cigondewah Kidul) and 1.48% (Cigondewah Rahayu) of open green space. Furthermore, the open green space is classified into children, adults, and elderly zones. Based on this condition, the Bandung City government should provide more green space within this area to relieve its stressful conditions.
4. Conclusion

The spatial conditions in Cigondewah, as a strategic economic location in Bandung, affect the women who live in the area. Notably, the study found indications of stress due to the activities of the women in the space. This stressful condition can hinder the development of the next generation. This study recommends the government, as the facilitator, to deal with this problem by providing public facilities such as open space for children and women to be able to undertake activities outside their stores. This is predicted to decrease their stress levels. Furthermore, planning policies should consider the availability of infrastructure and facilities before designating an area as a strategic location. The government should also supervise the building conditions to maintain a healthy environment in this strategic location. This study shows that the zoning plan for the Cigondewah area has weakness in planning spatial necessities, i.e.,

- The plan has not accommodated spatial integration, particularly from the needs of (1) home range, (2) core area, (3) territory, (4) jurisdiction, (5) personal distance or personal space;
- The plan has not yet accommodated the area’s behavioural setting, especially for women;
- The plan does not allocate enough green open space.

In planning for green open space, merely allocating the space based on spatial standardization is insufficient. Rather, the allocation of green open space also needs to be viewed based on function and land use plans. For instance, in the case of Cigondewah fabric centre, spatial plans provide more green space than is needed for residential areas because the study shows that Cigondewah fabric centre has a higher intensity of trade activities than for household activities. Thus, the government’s policies must support a greater amount of green open space in this fabric centre, while considering the quantity as well as the quality of green open space. The quality aspects for the green open space should consider classifications for the utilization of green open space, particularly for women who live in the area. This means that women in the Cigondewah fabric centre area should be able to undertake activities in the green open space. In this case, spatial plans for the area should truly understand the specific requirements of the area rather than applying a generic approach.

Other than that, if it refers to the SDG’s point 5.4, shows that space must provide access for women to do their activities. In particular, access to female’s roles as herself, a wife, even a mother. The planning upon RDTRK has not yet provided those necessities. The planning should have followed the paradigm of development that has been set.

Generalization practice on formulating the RDTRK is really not suitable for Indonesia. The reason is that the regional characteristics are diverse and the people also vary in tribes, traditions, and habits, so it needs a high-accuracy to accommodate the planning products. Moreover, documents or planning products are being used for relatively long-term. Meanwhile, the drafting of RDTRK was restricted by governance administration and the allocated time. Therefore, it is so dilemmatic for the local government. However, these findings increasingly require the mechanism of RDTRK formulation that is adjusted to the regional character specifications.

It is not only about the formulation of RDTRK itself, but also the implementation of the plan. Now it is the time for controlling the implementation of spatial planning becomes the focus of the government. All this time, the planning documents can’t be implemented. Therefore, humans within the space feel uncomfortable. It then affects their lack of productivity. Though in the law regarding spatial planning, Law Number 26 in 2007 stated that the purpose of spatial planning is for the sake of the sustainability of human’s life.

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