

To cite this article: Rully R Kifli, Nurlisa Ginting and Wahyuni Zahrah (2024). STUDY OF THE PHYSICAL AND NON-PHYSICAL CHARACTERS OF PUBLIC SPACES IN MATSUM CITY, MEDAN, International Journal of Education and Social Science Research (IJESSR) 7 (3): 287-304 Article No. 950, Sub Id 1478

STUDY OF THE PHYSICAL AND NON-PHYSICAL CHARACTERS OF PUBLIC SPACES IN MATSUM CITY, MEDAN

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DOI: <https://doi.org/10.37500/IJESSR.2024.7321>

ABSTRACT

The success of a public space is closely related to its physical and non-physical characteristics. In urban villages, public space is essential for the environmental elements. Therefore, this research aims to examine and explore the physical and non-physical characteristics of public spaces in an urban village (case study: Kota Matsum Medan). The research method is a mixed manner, namely qualitative and quantitative. Researchers collected and analyzed primary data through observation, in-depth interviews with ten key informants, and distributing questionnaires to 100 respondents. All data are collected and analyzed qualitatively and quantitatively and then presented descriptively. The research results show that the physical (type of space, accessibility, and comfort of space) and non-physical (community activity and sociability) characteristics of public spaces in Matsum City, Medan, are similar to public spaces in other urban villages. In this urban village, alleys not only function as circulation/accessibility routes but also as community gathering spaces. Even though the public spaces are not physically comfortable, the community's high social ties and economic considerations encourage the formation of a comfortable feeling for gathering and socializing. The results can be used as consideration for city planners to accommodate settlements that grow unplanned in the future.

KEYWORDS: Non-Physical Character, Physical Character, Public Space, Urban Village

1. INTRODUCTION

As social creatures, humans need space that can accommodate their activities in social interaction. Social interaction is one of the most essential needs for humans [1,2]. The space to accommodate these activities is public space. Public space is an open living space for city residents. Ensuring good quality, multifunctional, and well-connected public spaces that reflect class, gender, age and ethnic differences in the way people use those spaces is critical [3].

The importance of public space's existence also applies to various urban villages that grow in urban environments. Public space is a spatial feature inherent in urban villages. Urban villages in Indonesia have a unique spatial character, as do the people who live in them, where formal-informal interactions occur, creating a smaller level of private space and creating more semi-public space into public space

[4,5,6]. For example, private spaces such as houses limit access and are strict for visitors, while public spaces, such as roads, parks/fields, and public buildings provide equal opportunities for residents to access and use these spaces. Furthermore, semi-public spaces are generally formed based on community rules and consensus in perceiving shared spaces. These places could be taverns, terraces, yards, and local shops in urban villages. This transition zone between private and public areas is essential to encourage long-term activities and social interactions [6,7].

Medan City, one of the metropolitan cities and the third largest city in Indonesia, is one of the urbanization destinations for rural communities. It is in line with data from the 2020 Population Census, where the population distribution concentration of North Sumatra is in Medan city. This phenomenon contributed to the formation of several urban villages in Medan City. There is one urban village to research, namely Matsum City. Historically, Matsum City was part and center of the Deli Sultanate's government area [8]. Based on the development of the population flow of Medan City, the residential preferences in the Matsum City area are currently experiencing diversity, with Minang, Acehese, and Javanese people living there. However, overall, it is still dominated by the Minangkabau ethnic group [9]. The cultural diversity of the people in Matsum City indicates the formation of diverse activity patterns. In addition, historical context is also a key factor in understanding how public space is formed [10,11].

The cultural diversity and historical values found in Matsum City are part of the non-physical character of the public spaces in the village. The relationship between this character and the physical character is essential to research. Because the success of a public space is not only based on one characteristic but a combination of both [12]. Furthermore, to date, the research on the physical and non-physical characteristics of public spaces in Matsum City is less. Therefore, this research attempts to find out how both of these characteristics relate to its use.

2. MATERIALS AND METHODS

The research location is one of the urban villages in Matsum City, Medan, specifically Syeeh Burhanuddin Alley, Utara Street, Matsum City IV Village, Medan Area Sub-District, Medan City. This alley connects to several alleys. Those are Gang ST. Tannur, Waqf Alley, School Alley, Rambung Alley, Melati IV Alley, and Umar Alley, which connect Main Road with Halat Road (Figure 1). The Minang Muslim community dominates this urban village.

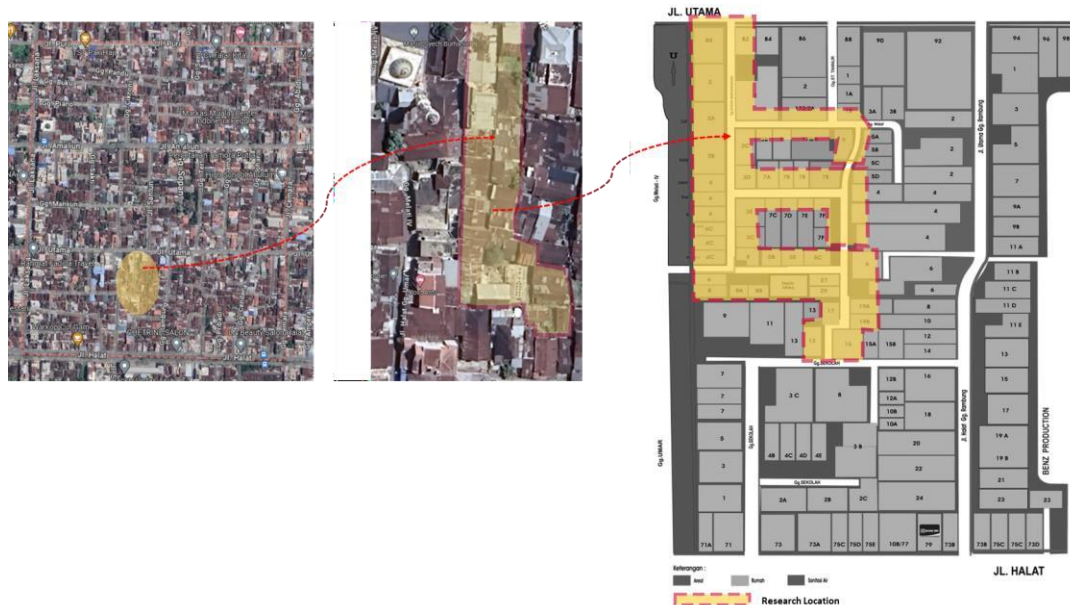


Figure 1: Research Location

Researchers use a mixed method of qualitative and quantitative to study the physical and non-physical characteristics of public spaces in Matsum City, Medan. Qualitative research is descriptive research and tends to use analysis with an inductive approach. The qualitative approach emphasizes meaning, reasoning, definition of a particular situation, and researching more things related to everyday life [13]. The quantitative approach is used for proof/confirmation and uses numbers in statistical analysis to solve research problems [14]. Therefore, these approaches are the most suitable for exploring the physical and non-physical characteristics of public spaces in Matsum City, because the things studied are related to everyday life, where every individual can have different perceptions. By conducting this mixed research, the interpretation from the qualitative approach can be strengthened and supported by the quantitative results.

There are two research variables, namely the physical and non-physical character of public spaces in Matsum City, Medan. Through a literature review, researchers break down these two variables into five sub-aspects, consisting of 3 physical characters and 2 non-physical characters' sub-aspects. The three sub-aspects of physical character are a type of space, accessibility, and comfort of space. The two sub-aspects of non-physical character are community activity and sociability [12,15].

The data collection method is through direct observation in the field, in-depth interviews, and questionnaire distribution. Things that need to be considered when conducting direct observations in the field and in-depth interviews are the type of space, accessibility, comfort, community activities from morning to night, and sociability. In conducting interviews, researchers formulated several questions for 10 key informants. Several criteria for key informants are (1) 15 years old or more; (2)

Having lived in Matsum City for 15 years or more; and (3) Key informants consist of various genders and ages. Apart from these criteria, residents who are first-hand homeowners in Matsum City will be a priority group for interviews. To strengthen the results of observations and in-depth interviews, researchers also distributed questionnaires to 100 respondents. The target respondents in filling out this questionnaire are varied, ranging from children, teenagers, and adults, to the elderly. The data in the questionnaire is related to ease of access, comfort of public spaces, security of public spaces, cleanliness of public spaces, and a sense of togetherness between residents in Matsum City. The questionnaires use the Likert Scale.

After collecting all the data, the next step is analyzing using several methods. First, researchers mapped all results of the observation and documentation. The presentation is in the form of photographs and architectural drawings. The mapping results are then linked to the in-depth interviews and questionnaire results to get some interpretations of the research. Then, the researchers compare the interpretations with theories from previous research. By comparing them, research findings are obtained and presented descriptively.

3. RESULTS AND DISCUSSION

3.1 Physical Character of Public Spaces in Matsum City, Medan

a) Space Type

The results of direct observations show that public space types consist of alleys, stalls, and fields. Syeeh Burhanuddin Alley not only functions as a circulation route but also as a terrace for residents' homes and a gathering place (Figure 2). Using the alley area as a space for gathering in this urban village is a practical solution to the limited space in residents' homes, namely by making the street or alley a space reservoir [16].



Figure 2: Alley as Public Space in Syeeh Burhanuddin Village

There are also five stalls in this location (Figure 3). One of them is a gathering point for gentlemen every day, precisely from 17.00 WIB to 20.00 WIB. This stall, which is popular as a gathering place for men, is the only stall that provides tables and chairs. This condition shows how the availability of places to sit encourages people to come to these places, thereby creating gathering and socializing activities.



Figure 3: Stall as Public Space in Syeeh Burhanuddin Village

Another type of public space in this alley is the field. According to information from the local Environmental Head, the field is the wastewater treatment plant of this village. However, the surface area can accommodate various joint activities, such as a place for children to play, a place for Independence Day events, a place for the government to carry out socialization and campaigns, a place for weddings, and a place for elections (Figure 4). Of these three types of public space, there is one thing in common that encourages residents to gather there, namely the availability of places to sit, such as stalls that provide tables and chairs, steps in the field, as well as leveling between the floor in the house and the road as a sitting area (Figure 5).



Figure 4: Field as Public Space in Syeeh Burhanuddin Village



Figure 5: Places to Sit in Public Spaces in Syeeh Burhanuddin Village

For people in the Syeeh Burhanuddin neighborhood, places to sit do not have to meet ergonomic standards. As long as they can sit, gather, and talk there, they will be happy and feel no coercion to sit in that place. This condition indicates that there is a factor, which is more than just a physical factor, namely the life of a space, which encourages someone to voluntarily come and sit in that place, which is called pause movement [17,18,19]. The pause movement, which encourages the formation of interaction spaces in Syeeh Burhanuddin, is related to research in the urban village's public space in Bandung. In that research, residents also often use every possible place to sit and gather, including stall areas, terraces, yards, and drying areas [19].

b) Accessibility

The questionnaire's results show that accessibility to public spaces in Syeeh Burhanuddin Alley is poor (average Likert scale 3.565). The main problem related to accessibility in this environment is that it is not friendly for people with disabilities (Likert scale 1.43). Apart from that, the circulation of pedestrians and motorized vehicles in this alley is on the same route. So theoretically, it has the potential to endanger pedestrians, especially children who are playing and passing by. In theory, pedestrian roads should not have obstacles like vehicle barriers or pilings [20]. However, this is not a big problem for residents in the Syeeh Burhanuddin neighborhood because there is a high sense of tolerance between residents. Furthermore, according to the local neighborhood head, there have never been any incidents between motorized vehicle users and pedestrians in the alley.



Figure 6: Motorbike in Syeeh Burhanuddin Alley

Accessibility to and from public spaces in Syeeh Burhanuddin Alley is relatively easy, especially for pedestrians (Likert scale 4.7) and users of two-wheeled vehicles (Likert scale 4.6), such as bicycles and motorbikes (Figure 6). The majority of every corridor in this neighborhood can also be passed by three-wheeled vehicles (Likert scale 4.1), such as trishaws. However, there are a few very narrow areas that cause difficulty to get through using a rickshaw. The road width is irregular, some sides are wide while the others are narrow (Figure 7).

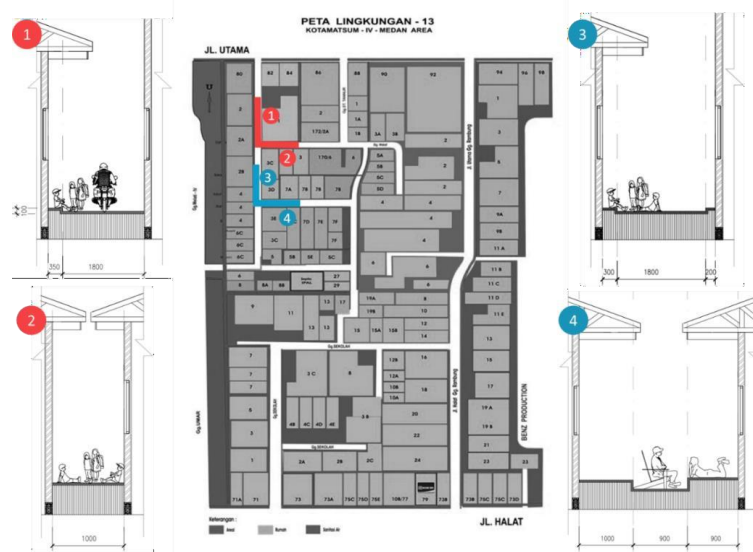


Figure 7: The Road in Syeeh Burhanuddin Alley Widens and Narrows on Several Sides

Four-wheeled vehicles cannot access Syeeh Burhanuddin Alley at all (Likert scale 1.41) because the dimension of the alley is only 1.8 meters on average. This condition encourages the occurrence of "island behavior" [21,22], namely a community of people who live their lives within their territory, in this case within the Syeeh Burhanuddin environment, and are seen to be socially isolated from urban life. The economic problem is also the other factor in the island's behavior.

c) Space Comfort

The questionnaire result shows that the comfort of space in the Syeeh Burhanuddin neighborhood is quite good (average Likert scale 3.7), but needs to be improved so that the public space is more comfortable to use. The most appealing fact is that people often stay in public spaces in this environment (Likert scale 4.03), feel comfortable (Likert scale 4.04), and are quite enjoyable for activities (Likert scale 3.89) even though the air is hot (Likert scale 2.82), less safe (Likert scale 3.91), and a little dirty (Likert scale 2.72). Some people often spend hours together (Likert scale of 3.77), especially those who are elderly and do not need to take care of children or husbands. Once gathered, the number varied and was quite large (Likert scale 4.42), with a minimum of two people and a maximum of six. According to the key informants, the factor that causes this feeling of comfort is the close ties of kinship between neighbors. This condition is in line with the results of several studies that show that village communities in Indonesia do not like being alone and enjoy being together [23,24]. Moreover, the people in this neighborhood are dominated by the Minangkabau tribe, specifically those from Padang Pariaman. This ethnic similarity creates a higher sense of kinship, even if they are not blood-related. This is in line with theories that state ethnic and cultural similarities play an essential role in forming social ties and interactions [25,26,27].

Several problems could disrupt the comfort and image of public spaces in Matsum City village if not immediately addressed, namely thermal comfort, cleanliness, theft, and the use and distribution of

drugs and methamphetamine. The thermal comfort problem is especially felt in the field because there are no shady trees planted at all. This problem can be overcome by creating green areas and shaded areas around the field (Figure 8).

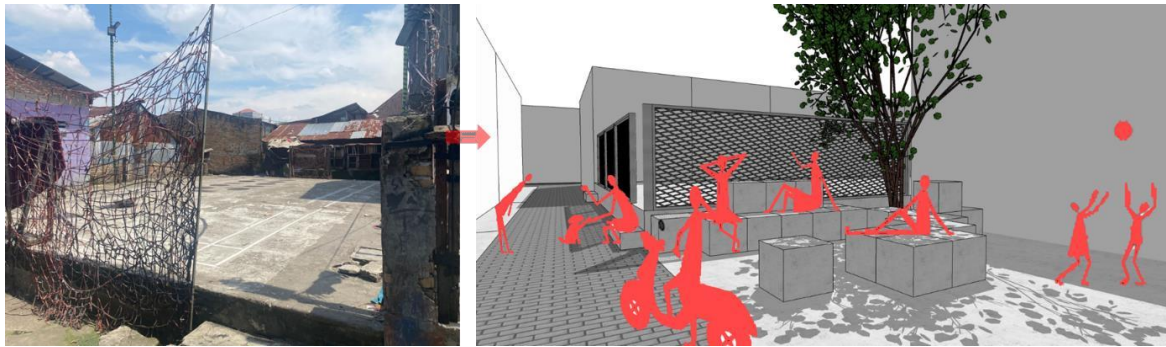


Figure 8: Thermal Comfort Solutions in Syeeh Burhanuddin Field

Cleanliness problems are a large amount of rubbish scattered at several points in the research location (Figure 9). The solution is to provide 3-colored trash cans at several points spread across each corridor. This solution also needs to be accompanied by socialization about waste management applying the 4R principle, namely reusing unused items (reuse), minimizing items that can produce waste (reduce), recycling waste to be reused (recycle), and restoring functions that have been reduced in use (recovery) [28,29].



Figure 9: Rubbish Scattered in Syeeh Burhanuddin Area

Two other problems, namely theft and the use and distribution of drugs and methamphetamine, are several forms of crime that often have great potential to occur in various urban villages. The problem of theft is similar to a crime that occurs in urban villages in Depok and Mlati District, Sleman Regency, where the results of research show that this crime often occurs in village areas that have road and environmental patterns in the form of loop and grid patterns [30]. The drug problem that often occurs in urban villages and is difficult to solve completely is because they use it like a "home base", not only knowing the roads around the area where they live but also knowing their surroundings and using the social networks available to keep drugs, meeting, consuming, and arranging sales [31]. Therefore, security should be improved, especially at every intersection that connects Syeeh Burhanuddin Alley with other alleys, namely by carrying out surveillance efforts using the CPTED (Crime Prevention Through Environmental Design) approach. Surveillance implementation in urban villages is through natural surveillance from the community. The high level of social interaction in people's lives will influence the level of monitoring of the environment. Apart from that, the society also can do surveillance through physical intervention, like making patrol picket lists, security guard posts, adequate lighting, and calls for guests > 24 hours, and report to the head of environment [30].

3.2 Non-Physical Character of Public Spaces in Matsum City, Medan

a) Community Activities

When observing community activities in public spaces in this environment, researchers classified them into three time periods, namely morning to afternoon (08.00 AM – 12.00 PM) (Figure 10), afternoon to evening (01.30 PM – 05.00 PM) (Figure 11), and evening to night (06.30 PM – 08.00 PM) (Figure 12). From these three time periods, the peak hours in the Syeeh Burhanuddin public spaces are from midday to evening, specifically from 01.30 PM to 05.00 PM. The busiest peak in this public space is at 16.00 – 17.00 WIB. The key informants also stated that most of them would gather in the neighborhood at 05.00 PM, especially mothers and children.



Figure 10: Activities in Syeeh Burhanuddin Public Spaces from Morning to Afternoon



Figure 11: Activities in Syeeh Burhanuddin Public Spaces from Afternoon to Evening

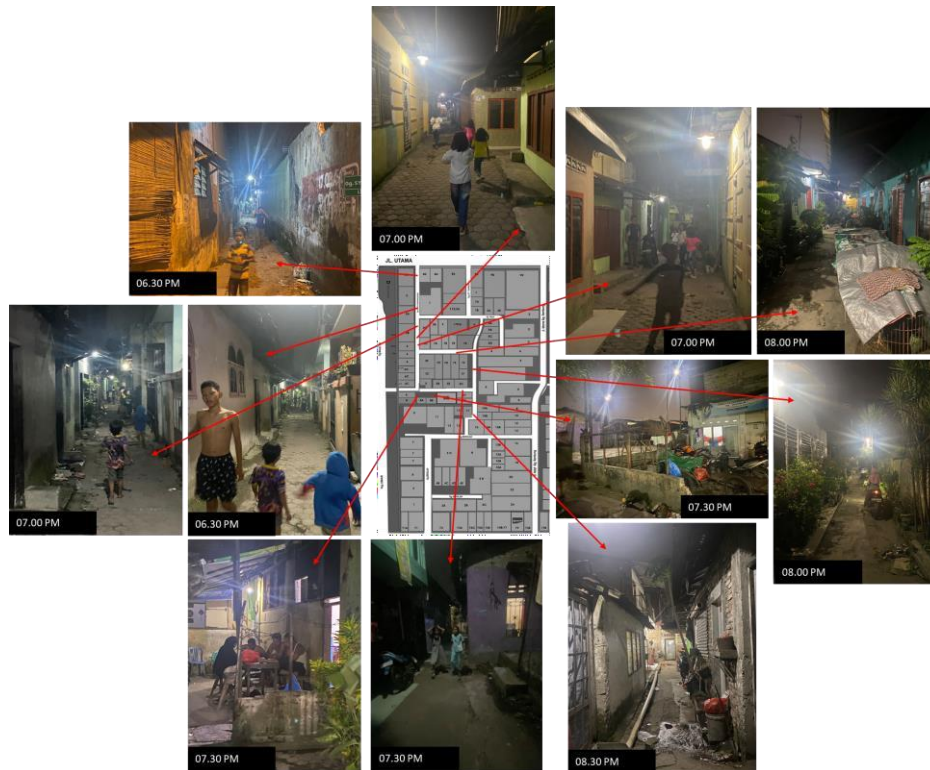


Figure 12: Activities in Syeeh Burhanuddin Public Spaces from Evening to Night

Main Activities

The questionnaire results show that the main activities occur actively in the public space of Syeeh Burhanuddin Alley (Likert scale of 4.71). This is because the alley not only functions as a public space but also as a circulation route. The society always passes through the alley every time they want to go to work, to school, to the market, and to other places. These results are matching with the opinions of key informants. They stated that they always pass through the gathering areas in the alley every day. Apart from being a circulation route for the movement of people and vehicles, the alley is also used as a place to sell by one of the residents in the urban village, namely right in the alley in front of his house. Socially, the place chosen is considered strategic because while selling he can also socialize with neighbors (Figure 13).

This condition is in line with the theory that states people in urban villages often use roads or alleys, which are also the terrace areas of their houses, as areas that are considered to have great potential as commercial areas [16]. Even though the selling place could disrupt circulation routes, especially vehicle circulation, it has never caused conflict among the residents because there is a high sense of tolerance that encourages the form of negotiation places [24].



Figure 13: Selling Activities in Front of the House at Syeeh Burhanuddin Alley

Optional Activities

The questionnaire results show that if they have free time, the majority of people in Syeeh Burhanuddin village prefer to go to public spaces in this neighborhood rather than stay at home (Likert scale 4.01). According to information from several key informants, especially housewives, coming to public spaces is a way to take a break from various activities at home. The interesting one is, according to these housewives, these public spaces are not very comfortable to occupy. However, the results of observations and questionnaires show that residents still have a high interest in being in public spaces if they have free time. Based on the results of in-depth interviews, economic problems are the factor that made residents continue to choose this public space. By gathering in public spaces in this environment, they don't need to worry about costs, such as transportation, food, and drink costs.

Apart from economic factors, the people in the Syeeh Burhanuddin neighborhood, like people in other urban villages, realize the importance of social contact and bonds of togetherness [16,32,33]. Humans, as social creatures, definitely need the presence of other humans in their lives. This belief makes residents feel compelled to take the time to interact with their neighbors.

Social Activities

The questionnaire results show that the most frequent social activity that occurs in Syeeh Burhanuddin public spaces is gathering and talking (Likert scale of 4.62). Based on in-depth interviews, the key informants state that gathering and talking is necessary for them. This social activity is directly proportional to the activity of choice. Because many people choose to be in public spaces when they

have free time, these public spaces will be visited by residents who have the same desire. This meeting between one resident and another will encourage conversation to create social activity.

This indicates that social activity is directly proportional to the main and optional activities. The alleyway, which is passed by residents every day, is used as a place to sell, sit, and relax during free time, making social activities occur intensely every day, especially in the afternoon from 04.00 – 05.00 PM. This situation is in line with other urban villages which not only use public spaces, especially alleys, as circulation routes, but also as places where economic and social activities occur. This activity makes the alleyway, which is also part of the terrace and yard of the house, lose its privatization value [34] while increasing the sense of togetherness between its residents [35].

b) Sociability

The questionnaire results show that the public space in Syeeh Burhanuddin Alley has quite high sociability (average Likert scale of 3.77). The residents know all their neighbors in this neighborhood well (Likert scale 4.55). Even though one or several of them are fighting (Likert scale 2.43), they are still united in helping each other voluntarily whenever one of them needs help (Likert scale 4.66).

From the results of researchers' observations, Syeeh Burhanuddin has a narrower alley width than other alleys in the surrounding, like Rambung Alley and Sekolah Alley. The alley in Syeeh Burhanuddin is around 1.8 meters wide. Meanwhile, the width of Rambung Alley and Sekolah Alley is 3.0 and 2.5 meters respectively. The narrow road in Syeeh Burhanuddin is socially beneficial. The residents are often seen gathering at several points along the alley, creating visual connectivity. Meanwhile, in Rambung Alley and Sekolah Alley, there is no gathering activity found. Moreover, all the houses in the two alleys are also fenced so that there are very clear territorial boundaries between private and public spaces (Figure 14).

This condition indicates that the narrower the alley in a settlement, the higher its social power. This condition is in line with several research results which state that the narrower the road, the higher the sense of togetherness between residents [35,36]. The higher the social power, the greater the sense of togetherness that will be formed, thus making the role of the alley as a public space greater than its role as a circulation route. Meanwhile, the wider the alley in a residential area, the greater the role of the alley as a circulation route rather than its role as a public space.



4. CONCLUSION

From the results of research that examines the physical and non-physical characteristics of public spaces in one of the urban villages in Medan City, specifically in Syeeh Burhanuddin Alley, Utama Street, Matsum IV City Village, Medan Area Sub- District, we can conclude that the physical (type of space, accessibility and space comfort) and non-physical characteristics (community activities and sociability) of public spaces in this urban village have similarities with public spaces in other urban villages. In these public spaces, the alley not only functions as a circulation/accessibility route but also as a community gathering space. Even though the public space in this environment is not physically comfortable, the community's high social ties and economic considerations encourage the formation of a comfortable feeling for gathering and socializing. From the perspective of spatial dimensions, the narrower the alley, the higher the social power created in this urban village.

The research results can contribute to government policy considerations in designing or developing urban village areas in the future. It is essential to pay attention and consider basic things related to public spaces in the area, especially alleys as the most dominant gathering places. Alleyways in urban villages need to remain narrow and unpaved. Because of the behavior of people in urban villages, especially children, who like to walk and run in these alleys. Narrow and unpaved roads make motorized vehicle users instinctively walk slowly. This condition could increase the safety of the residents in the alley.

REFERENCES

- [1] E. Hatfield, J. Cacioppo, R. Rapson, Emotional Contagion, Cambridge University Press, Cambridge, 1994.
- [2] D.N. Aulia, L.N. Napitupulu, "Study of public space activities in the main corridor of J. City Estate, Medan City, Indonesia," In IOP Conference Series: Earth and Environmental Science, 452(1), p. 012097, 2020.
- [3] UN-Habitat, "SDG Indicator 11.7.1 Training Module: Public Space. United Nations Human Settlement Programme," (UN- Habitat), Nairobi, 2018.
- [4] D.H. Rahmi, B.H. Wibisono, B. Setiawan, "Rukun and Gotong Royong : Managing Public Places in an Indonesian Kampung," Public Places in Asia Pacific Cities: Current Issues and Strategies, p 119–34, 2001.
- [5] S. Sastrosasmito, "Compact Kampung: Formal and Informal Integration in The Context of Urban Settlements of Yogyakarta, Indonesia," J Habitat Eng, 11p. 119–34, 2009.
- [6] I.A.W. Utama, "The hidden structure of organic informal-like settlements in Jogjakarta city: An investigation of socio- spatial relationship in an urban kampung," In IOP Conference Series: Earth and Environmental Science, 158(1), p. 012003, 2018.
- [7] J. Gehl, Life Between Building: Using Public Space Sixth Edition, The Danish Architectural Press, Danish, 2006.
- [8] Tribun-Medan, "TRIBUN-MEDAN-WIKI: Menilik Sejarah Kota Maksu di Kota Medan," 2020. Available: <https://medan.tribunnews.com/2020/09/15/tribun-medan-wiki-menilik-sejarah-kota-maksum-di-kota-medan> [Accessed: Oct. 3, 2023].
- [9] S.S. Manurung, "PREFERENSI RUANG-RUANG BERSOSIALIASI URBAN KOTA MEDAN (STUDY KASUS KAWASAN KOTA MATSUM, MEDAN, SUMATERA UTARA," SABANA: Jurnal Sosiologi, Antropologi, dan Budaya Nusantara, 1(1), pp. 28-38, 2022.
- [10] M. Carmona, "The place-shaping continuum: A theory of urban design process," Journal of Urban Design, 19(1), pp.2-36, 2014.
- [11] V. Mehta, D. Palazzo, Companion to public space, Routledge, London and New York, 2020.
- [12] Project for Public Space, "What Makes a Successful Place?," 2023. Available: <http://www.pps.org/reference/grplacefeat/> [Accessed: Jan. 20, 2023].
- [13] S.P. Rukin, Metodologi penelitian kualitatif, Yayasan Ahmar Cendekia Indonesia, Indonesia, 2019.
- [14] H. Sihotang, "Metode penelitian kuantitatif," 2023.
- [15] A.D. Nasution, W. Zahrah, "Privately-Owned Public Space for Public Use," Asian Journal of Quality of Life, 2(7), pp.11-19,2017.
- [16] A.S. Lathif, "Living in alleys: a story of kampung kota. Perception, design and ecology of the built environment: a focus on the global south," pp.487-502, 2020.
- [17] Y.F. Tuan, Space and Place: The Perspective of Experience, University of Minnesota Press, Minneapolis, 1977.

- [18] T. Cresswell, *Place*, University of London, UK, 2009.
- [19] S.R. Tamariska, A.S. Ekomadyo, "PLACE-MAKING'RUANG INTERAKSI SOSIAL KAMPUNG KOTA': Studi Kasus: Koridor Jalan Tubagus Ismail Bawah," *Jurnal Koridor*, 8(2), pp.172-183, 2017.
- [20] M. Yılmaz, "Public space and accessibility," *ICONARP International Journal of Architecture and Planning*, 2018.
- [21] L. Budiarto, "Dwellers and Strangers: Socio-cultural Entity, Space-use, and Spatial Configuration in Kampung Settlements of Jakarta, Indonesia," *Proceedings 4th International Space Syntax Symposium 79 (1-79)*: 16, 2003.
- [22] I. Hidayati, C. Yamu, W. Tan, "Realised pedestrian accessibility of an informal settlement in Jakarta, Indonesia," *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 14(4), pp. 434-456, 2021.
- [23] Koentjaraningrat, "Cara Hidup Penduduk Indonesia di Kampung," *Widyapura*, 2(5), 29-36, 1979.
- [24] A. Rolalisasi, D. Soemarwanto, "Gang sebagai Tempat Aktivitas di Permukiman Perkotaan Referensi Kampung di Kota Surabaya," *NALARs*, 19(1), pp. 19-28, 2019.
- [25] L. Goette, D. Huffman, S. Meier, "The impact of social ties on group interactions: Evidence from minimal groups and randomly assigned real groups," *American Economic Journal: Microeconomics*, 4(1), pp. 101-115, 2012.
- [26] J. Skvoretz, "Diversity, integration, and social ties: Attraction versus repulsion as drivers of intra-and intergroup relations," *American Journal of Sociology*, 119(2), pp. 486-517, 2013.
- [27] K.S.S. Tamrin, F.T. Musa, R. Harold, "Solidaritas Komunitas Suku Batak di Kelurahan Tuladengi Kecamatan Duingingi Kota Gorontalo," *Dynamics of Rural Society Journal*, 1(2, July), pp. 68-75, 2023.
- [28] S.B. Santoso, S. Margowati, K. Dyah, U. Pujiyanti, P.E. Pudyawati, S. Prihatiningtyas, "Pengelolaan sampah anorganik sebagai upaya pemberdayaan nasabah bank sampah," *Community Empowerment*, 6(1), pp. 18-23, 2021.
- [29] D. Rosadi, M.F.A. Akbar, N.C. Putri, R. Fatiya, S. Arifa, "Program pemberdayaan masyarakat dalam pemilahan dan pemanfaatan sampah sebagai upaya penanganan permasalahan kesehatan lingkungan di desa Tiwingan lama RT 02. SELAPARANG," *Jurnal Pengabdian Masyarakat Berkemajuan*, 8(1), pp. 381-390, 2024.
- [30] W.H. Nugrahandika, R. Ramadhani, I.A. Nurfajrina, "Karakteristik Kriminalitas di Kawasan Permukiman (Studi Kasus: Perumahan dan Kampung Kabupaten Sleman)," *Plano Madani: Jurnal Perencanaan Wilayah dan Kota*, 7(2), pp. 209-220, 2018.
- [31] C. Howe, "Dealing in and Consumption of Illegal Drugs in "Urban Villages"," *Zeitschrift für Polizeiwissenschaft und polizeiliche Praxis*, 20(5), pp.18-28, 2023.
- [32] C. Alexander, S. Ishikawa, M. Silverstein, *Pattern language: towns, buildings, constructions*, Oxford University Press, New York, 1977.
- [33] H.D. Ever, R. Korff, *Urbanisme di Asia Tenggara: Makna dan Kekuasaan dalam Ruang-ruang Sosial*, Yayasan Pustaka Obor Indonesia, Jakarta, 2000.



- [34] T.A. Fitria, A.E. Yetti, M.H. Rasidi, I. Said, "A Review: Social Behaviour and Transitional Space in Kampung Prawirotaman, Yogyakarta," In IOP Conference Series: Earth and Environmental Science, 1218(1), p. 012018), 2023.
- [35] R.U. Noviantri, H.W. Wiranegara, Y. Supriatna, "Jenis ruang publik di kampung kota dan sense of community warganya (kasus: Kampung Kali Apuran, Jakarta Barat)," Jurnal Pengembangan Kota, 7(2), pp. 191-198, 2019.
- [36] M.K. Kristiani, N. Yuliasuti, "Kajian Bentuk Lingkungan Permukiman Berdasarkan Sense of Community di Kelurahan Dadapsari Semarang," Teknik PWK (Perencanaan Wilayah Kota), 2(3), pp.578-586, 2013.