What are the most enduring elements in the traditional city of Surakarta? A case study of Kampong Baluwarti within the Surakarta Sunanate Palace

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Abstract. The traditional city of Surakarta is located in Kampong Baluwarti of Surakarta Sunanate Palace. This traditional city is experiencing rapid development in line with the development of its surrounding areas. However, it is believed that this city still maintains the authenticity of the elements forming traditional urban layout structures. This article focuses on the exploration related to the discovery of the elements which form spatial structures of a city. These elements are the ones able to survive as the embodiment of the authority concept for sustainable synergy with city development. This study employed a qualitative research method namely, the descriptive qualitative with a case study approach. The finding revealed that the most endured forming elements were the kedhaton (palace) as the center, roads as the paths, settlements surrounded by beteng walls and both the north square and south square as the domains. These findings contribute to the ability to overcome conflicts related to urban layout structure in the context of urban development.

1. Introduction

A city is a collective urban artifact built in a long time through a deeply-rooted in the culture of a local community [1], so the city is actually the accumulation of its developmental stages [2]. The traditional city of Surakarta, located in the Baluwarti Surakarta Sunanate Palace, also has a similar experience. This city’s developmental process, furthermore, cannot be separated from the reign of every ruler with his spatial policies and spatial arrangements from 1745 until now. Soeratman clearly states that the Surakarta Palace was built according to the form of the Kartasura Palace due to the transfer of the central government from Kartasura to Surakarta, so that the completion of the construction was handled by the kings who ruled later [3]. Soeratman furthermore explains that in a long period, the palace building continues to develop, but the division of the courtyard does not change (The Pigeaud, Bezoek aas.de Z.H dan Soesoehoenan van Soerakarta, Djawa.1930,49) [3].

Widayati, in describing the development of the palace, explains that the layout structure of Surakarta city is a process of development which started from the event of boyong kedhaton (moving the palace) of Kartasura to Surakarta [4]. The process of this event is explained as follows: (1) In the reign of PB II (1726-1749), he built trenches, bordering fences in the form of woven bethek bamboo, kedhaton, Ndalem (the nobles’ houses) in Ndalem Purwodiningratan and Ndalem Suryohamijayan (in north of kedhaton), granaries, Tamtaman settlements, markets, and Gondorasan settlements [4]. In his era, the community structure was still simple but it had already used the magersari system; (2) in the reign of PB III(1749-1788), there was an extension of the boundary by including the Carangan
settlement (the east of the Kedhaton and the south of Tamtaman) [4]. In this period, Baluwarti settlement was still residential spots and had not formed into a single unit; (3) During the period of PB IV (1788-1820) the buildings inside the kedhaton were built; (4) during the period of PB V (1820-1823) the construction of walls surrounding the palace was completed and the addition of Wirengan settlement (in the southwest of the Kedhaton) Gambuhan (in the northwest of kedhaton) was done; (5) when PB VI reigned (1823-1830), he added Hordenasan settlement [4]. In his era, the form of settlements had already surrounded and mingled with kedhaton and their structures had already been arranged by toponymy; (6) when PB VII reigned (1830-1858), he arranged the buildings and the kampong roads, so the settlements were integrated surrounding kedhaton and they were bordered by a fortress which then named Baluwarti settlement; (7) during the period of PB VIII (1858-1861) and PB IX (1861-1893), the form of the palace settlement has already been complete with its magersari system; (8) when PB X (1893-1939) reigned, he extended the area of Baluwarti by moving the complex border backward as wide as 30 m, so the area of Gambuhan became wider and its settlement structure was completed with magersari system; (9) in the era of PB XI (1939-1945), there was no development in Baluwarti and kedhaton; (10) in the era of Pada masa PB XII (1945-2004) there was no development and three were changes of layout in Baluwarti because it was the transition time when the Surakarta Sunanate Palace became the part of Republic of Indonesia as unitary state; (11) in the era of PB XIII (2009-present) the conflicts among royal family members occur because there are two kings [4].

Soeratman and Widayati have shown that the construction of the palace is a very long and gradual process in which the elements of urban layout structure are shaped [3, 4]. This statement can be used as a starting point in the process of finding the most enduring structural elements of the city during each stage of the development. This article aims to find elements of the traditional urban layout structure of the Surakarta Sunanate Palace that have survived to the present and are able to adapt to the development of the city.

The elements of traditional urban spatial structure, having been preserved up to now, do not only form urban structures, but they also served as the concept of cultural, political, economic, and tourism-related interaction. The following research findings, a comparative study between the Yogyakarta Palace and the Surakarta Palace, found a Javanese cosmological layout consisting of two aspects, namely the circle and the hierarchy [5]. These aspects function as the tool to reproduce the power structure obtained through ritual activities, behavior, and socio-political and economic activities [5].

The research conducted in the Yogyakarta Palace also found that the imaginary axis, having a philosophical value as the center of the city, as the link between the mountains in the north and the Indian Ocean in the south and as the imaginary axis of the city stretching from the north to the south covering the mountains-the monument (tugu)-Maliboro-the palace-the Krapyak Stage-Parangtritis Sea, are still preserved its function as the center of traditional ceremony, political activities, tourism, and economy; where the emphasis of the preservation was on the facade [6]. Other research related to the north-south cosmological axis of the Yogyakarta Palace also states that the axis is maintained through governmental, economic, and religious (ritual) activities [7].

As in the case with the spatial research in Bali, the philosophical characteristics of spatial systems and patterns reflect historical values, namely utama-mandala (the sacred zones), the mountains; mambya-mandala (the middle zones), the lowlands; nista-mandala (the profane zones), the beaches or called kaja-kelod (the mountain-sea axis). These systems and patterns have persevered through cultural tourism activities [8].

In Bandung, the central square is the reflection of the Javanese symbolic meaning, the meaning is the concept of the city center achieving a balance of power [9]. The square is surrounded by the Keraton (Palace) in the north (as the holiest place), the mosque in the west, the prison in the south, and the traditional market in the east [9]. The building placement according to the north-south and east-west axes buildings is based on the Javanese philosophical principles that are maintained through economic, political, and business activities [9].
The case in Slantsy, on the other hand, proves that architecture heavily depends on the historical order and the authorities as to the force that manipulates and controls collective memories as well as builds images with permanent landmarks [10].

Based on the analysis of several studies, including [5-10], it can be concluded that the process of finding the most endured city structure elements is quite similar. Such similarity can be seen in the existence of traditional urban structure elements that not only form the current urban spatial structure, but they are also related to the concept of culture, socio-politics, government, economy, tourism, business, ritual and religious beliefs, and city images. However, the researches related to the most well-preserved urban spatial structure patterns and to the authority concept of a community, have not revealed the detailed description. The previous research theories and findings, in addition, have not focused on discussing the role of the authority in maintaining the Surakarta City spatial structures. Therefore, this study aims to reveal elements of the Surakarta City spatial structures that are most well-preserved as the embodiment of the concept of authority, and this study also can be a significant contribution to the urban spatial structures.

2. Methods

This research was conducted in the Baluwarti Area of Surakarta Sunanate Palace. The research design was the qualitative descriptive method approach with case studies to enrich theories based on primary and secondary data [11]. Primary data were in the form of field surveys and interviews while secondary data were collected from maps, documents, and related literature. The research consisted of several stages, namely: (1) conducting a literature review related to the findings of the elements that formed traditional urban layout structures; (2) compiling the results of the literature review into propositions to be the guidance for researchers in verifying the elements which were found in the map of Surakarta Sunanate Palace map in 1873, 1888, 2017, 2018/2019; (3) conducting interviews and field observations related to map verification results and current conditions; (4) finding the most enduring elements, (5) The findings of elements compared with the Gestalt theory and the Giddens theory of Structuration. These stages also functioned as the triangulation technique for data validation [12, 13].

The proposition of the study was carried out to find the most enduring elements of the traditional city of Baluwarti which are located within the Surakarta Sunanate Palace. Therefore, the propositions of this study are elements that can survive including: (1) the traditional urban spatial structure, (2) the hierarchy in traditional urban spatial structure, (3) the roads as the basic elements of traditional urban structure.

3. Result and discussion

3.1. The Surakarta Sunanate Palace in 1873 dan 1888

3.1.1. Spatial structure of the traditional city. There are many findings on the elements of traditional urban spatial structure including the one mentioning that the Surakarta City was built with its main structure called catur gatra tunggal (four united containers), namely the palace, the mosque, Alun-alun (the square), and the market [14]. The same opinion was also expressed by Wiryomartono stating that an urban settlement was formed by permanent structures, namely the center of trade activities (market), the center of government, and the center of worship [15]. Wiryomartono also found that a kuta (city) was identical to a settlement that was protected by brick walls surrounding a pasagi-shaped area showing a territorial boundary, which is believed to be the structure of Javanese cities [15]. The Kuta (city) here means the center of the capital.

From Qomarun’s and Wiryomartono’s theories [14, 15], there is one fact similar to Soeratman’s and Widayati’s findings [3, 4]; that the city is identical with palaces, Alun-alun (squares), mosques and brick walls that surround settlements. The use of brick walls surrounding settlements is the main feature in pre-industrial cities which are also called traditional cities [16]. On the other hand, settlements within the palace walls have traditional Javanese basic concepts. They usually have an
urban structure that emphasizes the mass form of the buildings, which is in the form of dwellings. Homer which were created due to the culture of local settlements [15, 17].

Focusing on the capital’s central spatial structure, there are findings that support the fact that the center of the capital city always has the kingdom’s core building in the form of a palace consisting of a building complex surrounded by walls, and outside this core, there is a larger residential complex surrounded also by walls [18]. The same opinion was expressed by Priatmodjo stating that the structure of a “city” in the sense of kutha, is an area surrounded by two-layer-fortress where the palace so-called Baluwarti is the center while the princes’ settlement, the guardians’ and servants’ settlement (magersari), jagang, Alun-alun (the square), the grand mosque, the market, and the Dutch fortress are located around it [19]. These findings have similarities with previous findings describing that the elements of a traditional city begin from establishing the kedhaton (palace), building the Baluwarti settlement provided with fences made of woven bamboo, and building the square [3]. The difference, based on Priatmodjo[19], lies in the emergence of spatial structure elements of jagang, the grand mosque, the market, and the Dutch fortress, and this phenomenon is possible to occur because the process of building a palace process is done gradually following the kings' order.

The “Keraton” (palace) term has several meanings, namely a country, a kingdom, and a king's yard which covers the area inside cepuri Baluwarti and Alun-alun (the square). Thus, the palace encompasses the whole yard along with the buildings starting from the first kori (gate) of the northern square to the last kori (gate) in the southern square while the kedhaton is the residence of the king with his family and some of his servants [3]. Referring to Soeratman’s statement, Beteng (fort) Vasternberg was not included in the palace’s area, hence excluding Vasternberg in this study [3].

Figure 1 shows that in 1873, the palace as the traditional city center had built the main elements of the urban spatial structure including the core of the palace (kedhaton), the Baluwarti settlement bordered by the beteng’s walls, the main north-south road, the north square and the south square, the twin banyans in both north and south squares as the clear signs of the existence of the north-south axis; kori (gates) at the palace as the clear sign of the north-south main road, the kampong’s main road that surrounds kedhaton (the square-shaped path follows the shape of kedhaton), the grid-patterned village road, the nobles’ houses to the north of kedhaton, namely Ndalem Purwodiningratan, Ndalem Suryohamijayan, Ndalem Sasnamulya, and Ndalem Mloyokusuman, and several noble’s houses in the west and south. Some zones of the courtiers’ residence were still not many and scattered around the kedhaton with the grid pattern. Meanwhile, the market was located to the north of the Baluwarti walls, and the mosque was in the westerly direction of the north plaza.

Traditional urban spatial structure elements on the map in 1888 (Figure 2) shows that it basically still followed the pattern of urban layout structure referring to the 1873 map, in which a north-south axis centered on the kedhaton in the middle while the north and south squares with the twin banyans position in the middle reinforced the existence of the north-south axis. The division of residential zones used a grid pattern, and village roads also used the same pattern. The north-south axis was also reinforced by the presence of kori (gates) along the north-south axis which passed through kedhaton. However, there was a change in the main path surrounding kedhaton in the form of a clearer road pattern forming a square around the palace.

Figures 1 and 2 show that the main structure of the traditional city of Surakarta Sunanate Palace included kedhaton as the center, the north-south squares with twin banyans reinforcing the existence of the center (kedhaton), the main route from the north to the south, kori (gates), several settlement spots of Baluwarti with the grid pattern, beteng walls, the kampong road with the grid pattern, several nobles’ dwellings surrounding kedhaton, the mosque and the market.

Thus, the conceptions of Hinduism and Buddhism teachings have indirectly colored many socio-architectural conceptions of the cities or palaces of the Mataram Kingdom era (The Surakarta Palace is included in the Mataram Dynasty) namely the existence of squares, gates, fortresses, sacred buildings, houses of nobles and markets (Nagarakertagama pupuh VIII-XII, Pigeaud 1960) [20].
3.1.2. The hierarchy of traditional urban spatial structure. The traditional cosmic city has a layout with a concept using beteng (fortress), gates, and spatial division with a hierarchy, in addition, it has also a center [21]. Another supporting finding is that pre-industrial cities have different specifications from industrial cities. Pre-industrial cities are referred to traditional cities with their main characteristic is the emergence of differences in social status as seen in social stratification, this social structure is reflected in the pattern of settlement or kampongs in which the higher the social position of each individual or group, the more they will occupy the city center [16]. The city center is intended for the government offices, religious centers and settlements for groups with high social stratification [16]. The settlement inside beteng has a tradition of settling closely related to lifestyle in accordance with the stratification of the palace community [22]. The Horizontal and vertical spatial structures in pre-industrial cities are the manifestation of the social hierarchy of urban people [16].

The map of 1873 and 1888 (Fig. 1 and 2) show the hierarchy of space shown by spatial division based on the division of social stratification, the highest hierarchy was centered on kedhaton as the king’s place which was indicated by its position located in the center and surrounded by the first beteng walls; while the settlement of nobles and courtiers who had lower social stratification were around the center according to their position level. Between the first and second beteng walls were buildings used as the government centers, religious centers, and noble houses with high social stratification. The nobles’ houses in the north of kedhaton showed that these nobles have higher social stratification so that they occupy more spatial priority, while the nobles and courtiers who have a lower stratification level occupy the space in the east and the south of the kedhaton, with a hierarchical order a location that is getting away from the kedhaton in accordance with the social strata. The existence of the second beteng that surrounds Baluwarti village shows that differences in social stratification are manifested in the spatial hierarchy that distinguishes between the aristocrats and
ordinary people who are outside the beteng walls, hence the further from beteng the lower social strata.

3.1.3. Roads as the basic element of traditional city structure. Roads are the important element in the structure of traditional urban spatial structure, according to Inajati, the city center’s spatial components of Islamic Mataram includes: (1) alun-alun (the square), the palace, the grand mosque, the market; (2) the palace is surrounded by a fortress with jagang (a moat surrounding the entire palace); (3) settlements; (4) parks and krpyak in the south of the palace; (5) the external road network, namely the main entrance from the north, internal lane, namely the road network within the settlement or between villages; (6) the royal cemetery behind the grand mosque and in the south of the city [23].

Other studies show that road patterns tend to form north-south and east-west directions and city road patterns tend to be square. In addition, there are axes (straight lines), buildings in the corner (buildings located at crossroads) [24]. In the north of the city lies profane facilities such as kepatisan and the market while in the south, particular yet the right of the north-south axis, is the settlement of foreigners (Chinese, Dutch, and others.), to the west of the north-south axis is a Balinese settlement (Kebalen), the road extends from the east to the west which divides Surakarta City into two, namely the southern city and the northern city [25]. This path is interpreted as the main existential symbol in the architecture because it symbolizes the dimension of time, and with the existence of a path, a movement can be captured and time becomes constancy [26].

The palace’s main road as the center of the traditional city had been drawn on the maps both in 1873 and in 1888 shown by the pattern. This pattern, furthermore, followed the north-south axis emphasized by the existence of the straight road connecting the north square and the south square through the two banyans in the middle of the square and kedhaton depicted by the presence of kori (gate) along the north-south axis. The kampong’s main road surrounding beteng kedhaton does not follow the symmetrical square shape of kedhaton. The kampong’s roads in the north, south, west, east sides have a grid pattern (Fig. 1). In 1888, the development of the north-south main road became more apparent, and the main road that surrounded the horizon in beteng showed a more regular pattern. Moreover, the pattern of kampong’s roads also showed a more regular grid pattern (Fig.2). Thus, in the structure of the traditional urban layout, circulation and network/connectivity are very important [27].

3.2. The Surakarta Sunanate Palace in 2017 and 2018/2019

3.2.1. Spatial structure of the traditional city. The spatial structure of Surakarta City is originated from the Surakarta Sunanate Palace during the era of PB II. The palace’s layout used the concept of the four circles in Javanese kingdoms for the division of the palace. First, kedhaton which is surrounded by beteng (fortress) built from bricks; second, the Baluwarti settlement which is situated between two beteng as the ceremonial axis in the form of space for official activities; third, a yard outside KoriBrajanala called Puseban; and fourth, the square with beteng [3]. The first circle is called the state as the religious-magical center, the second circle is kutanegara or kutagara, the third circle is the great state or negaragung, and the fourth circle is called manganegara [18].

The palace’s spatial structure pattern on the map in 2017 (Fig 3) shows the same main layout structure pattern with the ones on the maps both 1873 and 1888. The similarities are: (1) the first circle, which has the core structure pattern (kedhaton) covered by the first beteng and located at the center of the state; (2) the second circle, the Baluwarti settlement surrounds the kedhaton and is also surrounded by the second beteng called kutanegara; (3) third circle: paseban, sitihinggil; (4) the fourth circle, both the north square and the south square, the market in the north of the Baluwarti walls, and the mosque in the westerly direction of the north square.

The other similarity is that in the Baluwarti settlement there are still nobles’ houses in the north, namely Ndalem Purwodiningratan, Ndalem Suryohamijayan, and Ndalem Sasana Mulya. On the other hand, the difference is that some additional nobles’ houses are in the west, namely Ndalem Mangkabumen, Ndalem Joyodiningratan, Ndalem Prabudiningratan (Fig. 3 and 4). In addition, the difference in the structure of settlement patterns in 1872 and 1888 with the maps in 2017 and
2018/2019 is that the population in beteng is denser and has more grid patterns of settlement (Fig. 3 and 4).

The map 2018/2019 shows that the pattern of the city’s main structure still maintains the main structure pattern of the traditional city in 1873 shown by the position of kedhaton in the center, Baluwarti position which remains surrounded by beteng, alun-alun (the square) located in the north and south, the north-south main route that is still maintained, the clearer main path surrounding the kedhaton, the road with the grid pattern in the Baluwarti which is also still visible, the kori (gates) along the north-south axis which is also still visible, the market and the mosque the westerly direction of the northern square which still stand (Fig 4). Thus, the main structures of the old city pattern remained as they were in 1873 and were still able to keep up with changing times marked with the establishment of various buildings with varying shapes and heights around the area. Thus, related to the concept of the urban spatial structure, the current urban development will not affect the main structure of the traditional city (Fig.4). The difference, actually, lies in the increasing of densely populated settlements within beteng, hence more spatial distribution grid patterns to be formed (Fig.4).

The arrangement of traditional cities is influenced by several factors which also limits its arrangement pattern, namely security and unity, limited material and technology, limited mobility, rigid social structure, and considerably slow development. These factors determine the arrangement of this old city. Furthermore, although it has experienced development in which the new layout and the old one are different, this old city is surprisingly is able to adjust and still keeps the old layout [28]. This phenomenon is due to the important physical and non-physical factors having symbolic meanings that exist in the development of the structure layout of the traditional city [28].

3.2.2. The hierarchy in the spatial structure of the traditional city. The spatial concept of the traditional city based on the concept of Hindu-Buddhist cosmology which shows the existence of the macrocosm and microcosm hierarchies, mancapat mancalima, the connection of north-south, right-left, east-west, sky-earth where the middle position is the center and the highest position in the hierarchy [29-32].
The implementation of the mancapat muncalima concept on the map in the year of 2017 and 2018/2019 is shown in the spatial hierarchy division in which the central/middle position occupies the highest level in the hierarchy while the north position is used for nobles’ residences who occupy high position in the social stratification (Fig. 3 and 4). On the other hand, the western and the southern parts are occupied by the aristocrats having a lower position in the social stratification compared to the ones living in the northern area (Fig. 3 and 4). Meanwhile, the courtiers and their descendants mostly live in the eastern part of the palace while others live in the areas surrounding kedhaton like in the west, south, backside of kedhaton; hence the lower the level in the social stratification, the further the position from the center (kedhaton/the palace). People from a low level of social stratification generally live outside the walls of beteng Baluwarti. Thus, the spatial pattern of hierarchy in this traditional city in 2017 and in 2018/2019 still shows the same pattern as ones in 1873 and in 1888.

Viewed from architecture science, ancient cities, also called traditional cities, have their own form of spatial organization structure which is a manifestation of their structure of urban society itself. The height of social hierarchies in traditional cities is directly proportional to the spatial architectural structure; seen in the distribution of spatial utilization (settlement grouping) and the shape of the buildings based on the owner’s social strata in the community [20, 29-31].

3.2.3. Roads as the basic element of traditional city structure. Figures 3 and 4 display that the main path of north-south axis is still maintained, and the north-south path is strengthened by the existence of a straight road that divides the north square and south square right in the middle of the twin banyans so that the trees seem to separate the square into two the western part and the eastern part. The main path of the settlement in beteng which surrounds the kedhaton is called ring 1, and this area is strengthened by the installation of paving stone.

The 2017 and 2018/2019 maps show that the kampong’s roads still followed the grid pattern like the one on 1873 and 1888 maps while the difference is that there are more kampong roads with a grid pattern, and they spread throughout settlements in beteng, particularly in the west side and south side of kedhaton.

3.3. The centre, path, and domain

The traditional city of Baluwarti, the Kasunanan Palace, has a cosmic spatial structure. Characteristics of traditional cosmic cities are having monumental axes, protected closures and gates, dominant landmarks, reliance on grid patterns, and spatial organization based on hierarchy, and in general, the structure of a city is composed of streets and public space [33]. The monumental axis is seen on the north-south axis which passes through the middle of alun-alun (the square) between the twin banyans and passes kedhaton through a series of kori (gates) to the twin banyans in the south square. Both the north square and the south square are the form of public space which serves an important element in the spatial structure of a traditional city. The dominant landmarks are seen in the form of the palace which is centered in the middle with the fort having two-layer walls. The spatial organization of settlements in beteng has a grid pattern arranged according to the roads’ grid pattern and the position of the settlement spatial organization based on the hierarchy where the highest social structure starts from the center.

The main components in the urban architecture include the center, paths, and the domains as well as the existence of spatial boundaries. The center, the path, and the domain are the concepts that attempt to translate the Gestalt concept into architectural forms [26]. The "center" is interpreted and understood as the axis-Mundi (the earth axis), the "path" is defined as the form of roads, and the "domain" is a city district interpreted as the prominent part of a city or the changes in a city’s surface that shows its boundaries [26]. In the case of the traditional city of Surakarta, kedhaton is the "center" which acts as the axis-Mundi. The north-south main road that runs through the north square to the south square and the kampong roads with their grid-style are the components of the "path". Whereas the "domain" is manifested in the form of settlements in beteng which are surrounded by beteng (fortress) as the boundary between the royal members in the palace and the common people, and the existence of the north square and south square as one unit of the palace’s spatial organization. In this
case, the surfaces of beteng and the square distinguish the surface of the traditional city from the surface surrounding areas.

3.4. The authority concept in the urban layout structure

When viewed from the Giddens' Structurization theory, the authority resources can be performed through the management of spaces as a means of maintaining the power within a community [34], such activity can be seen from the concept of traditional power authority manifested in the urban spatial structure comprising the pattern of building mass management and the separation of the palace from the settlement, and the dominance of space lies at the center of the settlement[35]. This concept is supported by the finding that describes the cosmological position of Java as a means of reproducing power by performing a ritual, holding festivals, creating differences in behavior, language, ways of speaking, and dress code between the center and the periphery [5]. The difference related to this finding is that the role of three entities; namely the Surakarta Palace, the north-south axis passing through the square, and the settlements within the fortress in reproducing power; has not been described in the full details. Meanwhile, the other findings, related to the preservation of buildings on the north-south axis, were carried out to create a historic atmosphere [6].

This study is limited to the changes of the building facades to remind the historic atmosphere on the north-south axis of the Palace at Malioboro Street, and it has no explanation pertaining to the detailed activities in strengthening the north-south axis. Other research findings show that the north-south axis of the Palace is used for economic activities, hence a commercial space[7]. Thus, these findings only indicate the main role of the city development which is located on the north-south axis of the Palace, and they have not yet presented the center, the path, and the domain as the overall structural elements of the city.

Meanwhile, other findings have explained that settlements within the beteng (fortress) of the palace were activities developed to increase the art and culture potential for the tourism industry, and these activities have been held continuously [36]. This finding shows that the north-south axis is not the only one element playing important roles, but both the path inside the beteng and the settlements within the beteng also have equally important roles in preserving the urban spatial structure.

Thus, the preserved city’s spatial structure is not only the north-south axis of the palace; the square traversed by the north-south axis, the main village roads, and settlements within the fort also give a significant contribution for the preservation of the city’s spatial structure. Various activities associated with art and culture are carried routinely in accordance with the Giddens' Structurization theory[34], which states that building authority is done through the organization of space as a means of maintaining the nature of power. The spatial structure organization of the Surakarta Palace spatial structure uses the Gestalt’s theory of "center", "path" and "domain"; in which kedhaton is the "center" having role as the axis-Mundi, the north-south main roads traversing the north square to the south square and the village roads with its grid-pattern are the components of the "path", and settlements in beteng is the "domain".

The results of this research have shown the relevancy of the Giddens’ theory to the activities of building authority through the organization of the “center”, “path”, and “domain” as the forming elements of the most endured traditional urban spatial structure; these activities, furthermore, also refer to the Gestalt’s theory. Therefore, it is clear that the Structurization theory from Giddens is closely related to Gestalt’s theory in the case of the discovery of the most endured elements most in Baluwarti area which is located inside Surakarta Sunanate Palace.

4. Conclusion

The Surakarta Sunanate Palace is the embryo of Surakarta City. The spatial structure of the traditional city of Surakarta experiences development in accordance with the reign of each king of his spatial policies. By analyzing the development of urban spatial structure components based on the maps, the development the Surakarta Sunanate Palace was categorized as follows: (1) the traditional urban spatial structure, (2) the hierarchy in the traditional urban spatial structure, (3) the roads as the basic element of traditional city structure; the most endured elements that form the city’s spatial structure
are *kedhaton* (the palace), the main road, the north-south axis, the main road of the settlements, and the settlements which are surrounded by the *beteng* walls and both the north and south squares. The findings of the most endured elements of urban layout comprise of the palace, the main roads, and the settlements in the palace, these findings are in line with the Gestalt’s theory [26].

The theory explains the concept of organizing the "center", the "path", and the "domain" spaces, and this theory supports the finding which describes the palace (*kedhaton*) as the center, the main road, the north-south axis, the settlements' main road and the settlements as the path, and the settlements which are surrounded by *beteng* walls and both the north and south squares as the domain. The center, path, and domain are maintained to support the Giddens' Structurization theory [34]. This theory realizes the concept of authority in maintaining the power of the palace through the act of preserving elements of urban spatial structure through cultural activities that are performed routinely and continuously at the center, path, and domain.

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