

# Spatial Planning of the Islamic Mataram Kingdom, Yogyakarta, Indonesia: Location and the Spatial Meanings of the *Keputren* Kedaton Plered- the Palace of the Princesses

Hery Priswanto<sup>1</sup>, Irfanuddin Wahid Marzuki<sup>2</sup>, Muhammad Chawari<sup>3</sup>,  
Churmatin Nasoichah<sup>4</sup> & Tyassanti Kusumo Dewanti<sup>5</sup>.

<sup>1-4</sup>Pusat Riset Arkeologi Prasejarah dan Sejarah BRIN

<sup>5</sup>Museum Pura Mangkunegaran

Email:priswanto.balaryk@gmail.com

Received	Accepted	Published
17.09.2024	20.10.2024	31.10.2024

<https://doi.org/10.61275/ISVSej-2023-11-10-02>

## Abstract

*Keputren* has been part of the palace of the Mataram Kingdom, Yogyakarta, Indonesia where the consorts of the Queen, concubines, and the princesses of the King have resided. Recent archaeological research in *Kedaton* Plered Yogyakarta has divulged significant findings related to the toponymy of *Keputren*. Among them, one interesting thing related to the existence of the *Keputren* Site in *Kedaton* Plered is proved by its location outside the *Cepuri* wall.

The purpose of archaeological research at the *Keputren* Site has been to find out and trace the existence of *Keputren* as part of *Kedaton* Plered city planning in the 17th century CE. In contrast, this paper examines the factors contributing to the placement of the *Keputren* site outside the *Cepuri* wall. The research employs a combination of archaeological and historical methods. Data collection was carried out by excavation, literature study, interviews, and investigation of ancient maps and archives.

The discovery of the *Keputren* at the Pleret Site is interesting because it stands out as a new element in the spatial layout of the Islamic court in Java. In the previous period, *Keputren* has not been found in the Royal spatial layout. Findings of this study shows that there are several factors contributing to the placement of the *Keputren* outside the *Cepuri* wall. One of these is that the King Amangkurat I had placed *keputren* it outside the Royal Court. The concept related to the spatial layout of the placement of the *keputren* is unknown. The area in the fort is devoted to the King and the sacred ones, as shown by the infrastructure inside the fort, mostly in the form of ponds and waterways, so that they may cause no difficulty for women in carrying out their daily activities.

**Keywords:** *Keputren*, Mataram Islam, Palace layout, Royal urban planning

## Introduction

The Islamic *Mataram* Kingdom, which has given birth to *catur sagatra* or four forms of noble derivatives including *Kasunanan* (Sunanate) Surakarta, *Kasultanan* (Sultanate) Yogyakarta, *Kadipaten* (Principality) Mangkunegaran, and *Kadipaten* (Principality) Pakualaman, in its history has several times moved the centre of power or the palace. The first centre has been in the Kotagede area, Yogyakarta, with the ruling King starting from *Panembahan Senopati* (late 16th century CE to 1601 CE), *Panembahan Seda ing Krapyak* (1601–1613 CE), and *Sultan Agung* (1613–1646 CE). It was during the time of *Sultan Agung* that the palace (*kedaton*) has been moved to Kerta, which is about 5 km South of Kotagede (Graaf, 1986). After *Sultan Agung* died, the reins of power of the Islamic *Mataram* Kingdom has passed to his son, Sunan Amangkurat I. After ascending to the throne, *Sunan Amangkurat I* has moved his palace from Kerta to Plered, which is about 1 km Northeast (Adrisijanti, 2000; Graaf, 1987). Plered is the third capital of the Kingdom of Mataram after Kotagede and Kerto. The construction of *Kedaton Plered* had begun in 1647 CE, marked by the order of *Susuhunan Amangkurat I* to the people of Mataram, as follows

“...*Sarupane kawulaningsun kabeh, padha nyitaka bata, ingsun bakal mingser teka ing kutha Kerta, patlasane Kanjeng rama ingsun tan arsa nenggoni. Ingsun bakal yasa kutha ing Plered...*” (Olthof et al., 1941: ?).

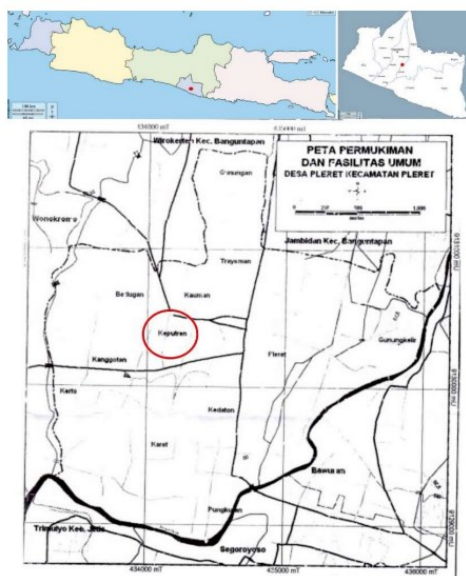
“...All my people, you make bricks, I will move away from Kerta, because I do not want to live in your father's former (residence). I will build a city in Plered...”.

According to Ras (1992), the new palace is called *purarya* () and it has been surrounded by a brick fence inserted with 5-6 m high natural stone, 1.5 m thick with a triangular white stone at the top (Graaf, 1987; Kuijk & Nagtegaal, 1995; Ricklefs, 1978). Plered Palace is surrounded by several waterways and dams to create an artificial sea (Adrisijanti, 2000; Graaf, 1987) known as *Segarayasa*. *Segarayasa* which has a symbolic meaning as a source of life (Junianto, 2019). It refers to the concept of *mandala giri* that already existed during the Hindu-Buddhist period, as the centre of the world (micro cosmos) surrounded by the oceans. In addition, the architectural character of the building surrounded by water and forming separate islands represents the solitary nature of *Amangkurat I*, who does not like to blend in with the others (Graaf, 1987). The city components of the Plered Palace are customs gates, road networks, markets, grand mosques, perimeter walls, *keputren*, dikes or dams, *segarayasa* (water buildings), ditches, squares, palaces, parks, *krapyak* (a hunting ground for the king and nobleman), residential areas, and cemeteries (Adrisijanti, 2000: 249). The main components take the form as a palace (the King's residence), grand mosque, square, and market, which have been still maintained until the time of the establishment of the kingdom of *Ngayogyakarta Hadiningrat* (1755 CE) (Alifah & Priswanto, 2012).

One of the important components in the urban planning of the *Kedaton Plered* is *Keputren*. This site is one of the sites in the *Kerta Plered Cultural Heritage Area* which has been built during the *Amangkurat I* period (1647—1677 CE). The *Keputren* site is in Pudukuhan (village) *Keputren*, Kelurahan (district) Pleret, Kapanewon (sub-district) Pleret, Bantul Regency, Special Region of Yogyakarta (Figure 1). Nowadays, the *Keputren* Site has become residential areas, schools, places of public services (schools, health centre, police stations), gardens, stables, rice fields, and tombs with poor conditions. Traces of activity and antiquities in *Keputren* can be found from a variety of existing surface findings. Although these findings are no longer in-situ, they still represent the ancient character of the *Keputren* site area (Priswanto et al., 2023)

*Keputren* is where the King's wife, princess, *sentana dalem* (royal family) and the female courtiers of the princess live (Favre, 1870; Poerwadarminta, 1939) which is very private and unknown to many. The location of *Keputren* has been within the walls of the palace fortress, adjacent to the King's palace and accessible only to the Queens (the King's wives), their minor children, female courtiers, and the King himself (Florida, 1995). The inhabitants of *Keputren*

consist of hierarchically arranged groups of nobles: namely the group of the King's wives, daughters of the King's family and relatives, and female courtiers. The King's daughters have occupied the highest place on the throne after the queen consort. They have been allowed to wear clothes and desired jewellery but not footwear, meaning that in the *kedaton*, only Kings and Queens wore footwear. The King's daughters have always been covered with oversized umbrellas (*songsong*) like the King and the Queen consort (Soeratman, 2000). The journey of the daughters' lives reflects the '*sangkan paraning dumadi*' (origin and goal of life) that they achieve by doing '*practice*' (spiritual practice). The culmination point of their life journey was reached when the princesses became seniors and lived on the West side of the core area. The senior princesses act as advisors who provide direction to the younger generation, reflecting their level of wisdom and the maturity of their spiritual intelligence in "*manunggaling kawula Gusti*" (union between Man and God) to achieve harmony "*hamemayu hayuning bawana*"



**Fig. 1:** Map of location Keputren site  
Source: modified by Author, 2023.

(perfecting the already beautiful world/harmonization of the relationship between God, Man, and Nature) (Hastuti et al., 2023).

Nevertheless, research on *keputren* as one of the components in the spatial layout of the Kingdom is still scarce, due to its location in the "forbidden" zone that cannot be entered by anyone and hidden, causing limited sources of information about the *keputren*. Unlike the definition of *keputren* above, the *Keputren* Kedaton Plered is located outside the *cepuri* wall, precisely on the Northwest side of Kedaton (Adrisijanti, 2000).

In this context, this article examines the reasoning behind the placement of the *keputren* of *Kedaton Plered* outside of the *cepuri* wall. The study of the location of the *keputren* in the spatial planning of the Kingdom is very important considering that studies on the *keputren* are very limited. Its aim is to reveal the nuances of meanings, concepts and ideas that have led to the spatial planning of the Royal Court of the Mataram Kingdom in Indonesia and to facilitate the understanding of historical planning principles and practices resulting in the organisation of settlements: both vernacular and state-sponsored.

Its objectives are:

1. To ascertain the spatial layout of the Islamic Kingdom of *Mataram* in Plered
2. To identify the concepts and principles that have led to the placement of *keputren* in the spatial layout of the Plered Palace, and
3. To identify the factors that have affected the placement of *keputren* in the spatial layout of the Plered kedaton.

## Historical and Theoretical Framework

### Theory of Urban Spatial Planning of the Islamic Kingdom

Bagoes Wirjomartono (1995), reveals the concept, structure, and physical elements of cities from the Hindu-Buddhist, Islamic period to the modern times in Indonesia. According to him, the Royal cities in Java have come into being as models of their heavenly settlements which can be physically seen from their conceptual identity. The city in the concept of Javanese society is a residential area that is square in shape and protected by a fortress wall. The concept of the city is not only seen from a physical perspective, but also spiritual and social. Physically, a city is an area surrounded by walls. The palace as an area surrounded by walls is the definition of a settlement centre for the King/ruler. Spiritually, the city is the ideal and perfect centre of cosmic power. The city centre is celebrated as the centre of the world and the holiest place. Socially, the city is a place of residence for rulers who have a high social structure.

Palaces in Java have recorded many events that have resulted in artifacts in the form of palace buildings and layouts. The planning of urban centres ranging from the Hindu Kingdom of Majapahit, the Islamic Sultanate to the Sultanate of Yogyakarta and the Sunan of Surakarta is the first evidence of the continuation of the history of traditional urban planning in Indonesia based on cosmological beliefs at the beginning (Rukayah, Dhanang, and Endang 2016). The centre of government in the form of a square in the middle, a palace on the South side, and a worship building on the West side is a continuation of the concept of the city center that has been applied in the urban planning of the Majapahit Kingdom (Budihardjo 2012). However, the concept of an Islamic sultanate city in Java does not fully refer to the Hindu concept that was originally applied in Majapahit (Rukayah and Malik 2012). The concept of the center of Majapahit which became an unwritten reference for his successor Kings such as the Sultanate of Demak, Banten, Cirebon, and Mataram Islam has been adapted with the addition of a mosque on the West side of the square (Rukayah, Respati, and Susilo 2016).

According to Inajati Adrisijanti (2000), the Islamic city of Mataram Kingdom, which had come into being at the end of the XVI century in planning and spatial planning, was colored and based on Islamic teachings, but some aspects of pre-Islam have been still alive and given Islamic "colors". The concept of urban spatial planning of the Islamic Kingdom as a system has several components, including forts, residences of rulers and government buildings, *jami'* (grand) mosques with *madrasah* (Islamic school), cemeteries, markets and transportation infrastructure, as well as residential areas grouped by ethnicity, profession and religion. The spatial layout of the Islamic city of Mataram is different from the spatial layout of the West Asian cities, such as the bustling centre of Islamic cities in West Asia in the form of a market (*shuq*), while in Java, it is in the form of a square (*alun-alun*). Meanwhile, the palace as the center of the Kingdom is divided into several components such as gates, road networks, forts, *jagang* (moat), markets, grand mosques, squares (*alun-alun*), parks, *keputren*, settlements, and cemeteries.

### Review of Literature

The power of the Javanese King cannot be separated from the spiritual concept of the belief that there is harmony between the macrocosm and the microcosm, and between the universe and the human world. According to this belief, humans have always been under the influence of forces sourced from the cardinals, the stars, and on the planets that can produce prosperity and destruction. This implies that harmony can be achieved by arranging the kingdom as a small universe (Suratman, 1989). Pre-Islamic societies in Java thus recognized the belief in the power of Empu Rama and Permadi on Mount Merapi, and thus the Kings of Java ordered the poets to legitimize their rule by creating imaginary relationships with the great kingdoms of the past to gain spiritual power from their ancestors (Brandon, 2003)

The cosmic state is closely related to the concept of a god-king. It is believed that the King is a descendant from a God (Geldern, 1982). The King-God is a Hindu-Buddhist cultural concept that worships and considers that the King has a divine nature. This is indeed a concept that has developed in the Southeast Asian region (Sengupta, 2005). The concept of Kings in the

Islamic kingdom period did not position the King in the same position as God's position, but as God's representative on the earth (Moerton, 1985).

Interestingly, spatial planning of the Mataram palace has been inspired by the teachings of *Vastusastra* from India (Wardani, et., al., 2011). However, it has then developed into *Catur Gatra* (Tjahjono, 1988) dan *mancapat-mancalima* (Juniarto, 2019). *Catur gatra* is a symbolic system of the Javanese society which refers to the four cardinal corners as the place where the Gods reside (Tjahjono, 1988; Juniarto, 2019). To be balanced, there must be something in the middle as the center (*pancer*), so that the existence of *mancapats* is known. *Mancapat-mancalima* is a symbolic classification system of category five, which contains the meaning of stability and harmony of the world (Tjahjono, 1988). The position of the central point is very dominant as the guardian of the stability of the entire order (the King as a *pancer* is a representation of cosmic forces above the earth under the sky that is confirmed by mythology). In the physical structure of the palace building, the center of the king's power is manifested in the core building of the palace called *Prabayeksa* (Wardani, et., al., 2011). A classic Javanese city during the Islamic Mataram kingdom, composed of buildings and gardens arranged based on customs sourced from the Palace (Santoso, 1984). The transformation of the concept of *mancapat-mancalima* in the structure of the Islamic Mataram kingdom city, is arranged in a superposition between the "North-South" and "East-West" axis grid patterns, with imaginary circles. The "North-South" axis is sacred, while the "East-West" axis is profane. Indeed, the centre is the *Dalem Keraton*, which has a symbolic meaning as a controller as well as a coordinator of the order of life in the "Great State" (Juninho, 2019).

Research on *keputren* as one of the components in the spatial layout of the Kingdom is still very lacking, due to its location in the "forbidden" zone that cannot be entered by anyone and is hidden, leading to limited information about *keputren*. Nevertheless, research on the urban layout of the Islamic Mataram Kingdom has been conducted by several scholars. They show that one of the significant centres of daily life in the Surakarta Palace, is indeed *Keputren* (Soeratman, 2000). *Keputren* is closely guarded because it is the place where the King and his family live with his courtiers. The residents of *Keputren Keraton* Surakarta consist of hierarchically arranged groups of nobles. The first group included the daughters of the King's family and relatives, and the second group included the courtiers of the 12 *dalem estri* (female courtiers) and the servants.

Research on the phenomenon of female courtiers who revealed the process of building from the theory of social capital (Astuti, 2015). This study examines the changes in the basic concept of devotion from time to time, especially from devotion to the King to service to the palace. The history of ancient piety is divided into two parts, namely those inherited by parents or families and those not inherited by parents or families. In contrast Aryanti (2016) has examined the architecture layout of *Keputren* Yogyakarta Sultanate. According to her, the layout of the *palace Keputren* depicts the sultan's desire to make women and their space invisible to men. The principle of separation of spaces based on gender and women's compliance with the rules is manifested in the form of voluntary use of space. This proves the existence of disciplinary practices as a method of body control. These show that gender border separating the sexes results in different qualities of space, but their spatial manifestations occur naturally. *Keputren* is used for family ceremonies, especially those related to women's domestic activities, fertility ceremonies and life rite ceremonies (Wardani, et., al. 2011).

Despite these findings, research examining the spatial planning of the Royal court is rare particularly because the place is hardly accessible. In this context, this research plays a significant role in revealing some of the facets that have not been divulged so far.

## Research Methods

This research uses a historical archaeology approach that combines archaeological and non-archaeological data: history, geography and ethnography. Historical archaeology deals with the study of archaeological remains accompanied by written records related to the history of relics (Funari et al., 1999). Use of written data in addition to material data is expected to reveal in-depth the historical background of archaeological remains. However, historical



archaeology studies cultural history and cultural processes documented in written sources using historical documents to find out the past lives (Iriyanto, 2010). The study of historical archaeology focuses on the historical periods (after literacy) and is defined as the study of material remains from several historical periods (Hall & Silliman, 2006; Orser & Fagan, 1995).

This research generates data from historical material, archaeology and toponymy. Historical sources used include written documents such as archives, ancient maps, old photographs, Dutch records and manuscripts; all of which are related to the Islamic Mataram Kingdom during the time of *Sunan Amangkurat I*, especially related to the *Keputren* site. Pengumpulan data Pustaka dilakukan oleh Irfanuddin Wahid Marzuki, Muhammad Chawari, dan Churmatin Nasoichah.

The source of archaeological data is in the form of artefacts obtained at the *Keputren* site conducted by Heri Priswanto and Tayssanti Kusumodewanti. Artefact data collection is done through surface surveys and excavations. Data collection began with initial observations or surveys that collected surface data that can still be known. A surface survey was conducted by documenting several artefacts found around the *Keputren* site. Archaeological data in the ground was obtained through excavations. This activity determined the excavation box in the framework of excavation activities. Data collection began with initial observations or surveys that aim to collect data in locations that can still be known. The excavation was carried out after seeing the results of surface surveys and interviews with resource persons at the *Keputren* site. Excavation was carried out by opening an excavation box measuring 2 x 2 meters.

The excavation technique used the spit technique, which is digging the soil with a depth interval of 20 cm. Every depth of 20 cm, data recording was carried out (verbal and pictorial), including soil condition, soil colour, presence/absence of the findings, depth, size of findings, and so on. The excavation was carried out by opening 24 boxes at the *Keputren* Plered site. In addition to historical and archaeological data, toponymy data sources are also used. Toponymy is a name given to an area that is not only in the form of writing on maps or signage street signs or the location of a place. In general, this toponymy is based on profession, status, religion (clergy), or race (Atmosudiro, 2002). Toponymy findings are closely related to the field of mapping population geography which is related to proving that the region has a close relationship with history (Saraswati, 2015).

In addition to literature studies, surveys and excavations, the research employed interviews also to generate data. Interview were conducted with parties who are considered to know about the existence of *Keputren* in the past, as well as various things related to its object, including: its location and status as a former *Keputren*, the history of ownership of the former *Keputren* location after this object no longer functions as it should be in accordance with its original function, namely as a residence for the princesses of the Palace. Interviews were also conducted on historical information and chronology of events in order to support research data.

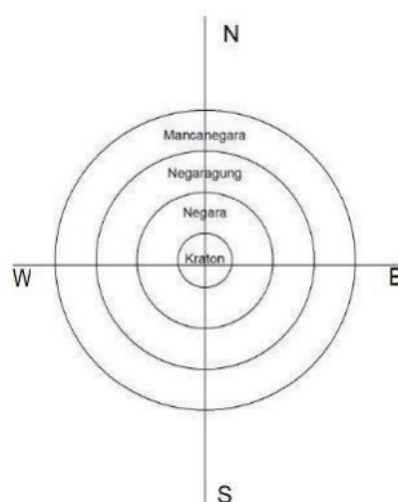
Data collected during the study, whether it comes from surface surveys or excavations, were analysed, and synthesized. The analysis of archaeological data sources is then linked to historical and toponymic data sources by using comparative and context analysis tools to produce a general picture of the past conditions. The results of the data source analysis are then used to answer the problems raised. Theory in this case is used as a hook between field data. Nevertheless, the results presented in this article are still open to future interpretations, as there might be no development of new data or analytical tools. The initial hypothesis unravelled as to the the cause of the placement of the location of the *keputren* in *Kedaton Plered* is that the area were to be developed again by building a larger fort, so that the *keputren* area is included in the area within the fort. However, subsequently, this may not have happened as envisaged.

## Findings

The Kingdom of *Mataram* has been established in 1582 CE. The region includes Central Java, East Java, and parts of West Java. The *Mataram* region is divided into several large areas with the Palace as the centre (Figure 2). The order of division from the centre to the regions includes the palace or the Royal Palace as the centre of the country and is in the capital

city called *Kutanegara* or *Kutagara* (Lombard, 2008). The system of royal power in Java, is known as the conception of revelation (Dewa-Raja)(Santoso, 1984a). The king was considered the incarnation or embodiment of a God, and thus the King is turned into a cult. The kingdom is considered the centre of the 'world' headed by a King who is identified as the centre of the universe (which must be guarded).

Kings in the Hindu-Buddhist tradition is considered the embodiment of Gods, while in Islam, they are considered to have virtues that exist in these Gods (Behrend, 1983). The conception of the central cities of the kingdom has been based on a religious-cultural conception. The palace and the King act as cultural centres and are tasked with maintaining a balance between macrocosm and microcosm (Lombard, 2008). Along with the progress of the *Keraton* government and the life of the city community with the peak of the king's power, a pattern of city structure has been built, which has had unique characteristics (Junianto, 2017: 27). The king's power system has a very strong 'form' on the pattern of the city structure (Junianto, 2019). The King in the development of the kingdom had a centre on the territory of his state. The King's authority was based more on charisma and the strength of personal competence, and thus the King's authority has been further institutionalized into tradition (Murdiyastomo, 2016).



**Fig. 2:** Mataram Kingdom Spatial Circle  
Source: (Lombard, 2008)

### Archaeological Remains in *Keputren* Site

The Plered site has diverse archaeological remains, ranging from the influence of Hindu-Buddhist civilization to the Dutch colonial period. Archaeological remains at the *Keputren* site based on their location can be distinguished into remains that are on the ground surface and those that are in the ground. Archaeological remains on the ground surface are in the form of andesite stone blocks, stone piles, stone mortars, stone dyes, tombs, old wells, and temple stones (Priswanto et al., 2023) (Figure 3). The archaeological remains are scattered in several locations at the Plered site (table 1). Some of these artifacts have been taken away partly by the residents when digging soil for making bricks, house foundations or searching for bricks for raw materials for red cement. People know that their settlement's location is the kingdom's former capital, and therefore, many dig to find ancient bricks made into red cement.

House buildings in Java in the past generally did not use Portland cement screws but red cement (finely ground bricks) mixed with lime and water known as *bligon* ([Dinas Budaya \(Kundha Kabudayan\)](#)). Indeed, this is the case in the special region of Yogyakarta ([jogjaprovo.go.id](#)). *Bligon* is used as a species and plastering material for building walls. These illegal excavations have lasted until the 1980s.

Andesite stones have been found in the form of stone blocks without ornaments and some parts of temple stones that have ornaments. Andesite stone blocks that do not have ornaments in number three have a length of 79-122 cm, and thickness of 20-27cm, and width of 45cm. The three stone blocks are currently not in-situ, because they have been obtained when the community dug the ground to look for bricks. Based on the results of the comparison with similar finds at the Kerta Site, stone is thought to be part of an archway. Thus, it is placed at the bottom of the entrance of the archway. The structure of the fortress is made of brick, but on the door, there are stone blocks for the bottom layer so as not to wear out quickly. Other andesite stones found at the *Keputren* site are pieces of andesite stone that are thought to be part of building or temple ornaments. The condition of the andesite stone pieces is poorly maintained.

The old tomb located in the middle of *Keputren* village totals 18 *jirat*, known as *Sinden* Tomb. *Jirat* is made of an arrangement of bricks glued together using a specific, rectangular in shape with an orientation pointing North-South. Forms with variations are in the form of talismans of adults and children. Some of *Sinden's* tombs are still relatively intact, but they are not preserved because their heirs are unknown. The current condition of the burial ground is only a little left, possibly more extensively.

Some of the stones found have been repurposed, and some have been left in people's gardens/yards. *Umpak* is known as the column base, sitting platform or pedestal which is known in traditional house construction culture. *Umpak* serves as a building support or building pole that stands on the ground. The presence of *umpak* is as important as the function of the foundation in the building, as a reinforcement of building construction and aesthetics. *Umpak* functions as a flexible support in house buildings that use pole support. Columns or poles are not planted inside the foundation but simply superimposed on the floor of the building.

When an earthquake occurs, the joints of columns and foundations will not break but only shift. When an earthquake occurs, vibrations will be received by beam and column structures and will be channelled to stone foundations (*umpak*) without damage (Fajrin et al., 2017). *Umpak* is made of stone, wood, or a mixture of other materials in the form of rounds, cubes, or boxes. The shape and decoration of *umpak* can be a marker of the social status of its owner (Rusyanti, 2021). *Umpak* which has a richer shape, and ornamental motifs indicates that the building is a magnificent building, or the owner has a high social status. Ordinary people's houses tend to be plain or not of much decoration.

In addition to technical meaning, *umpak* also has a symbolic meaning. *Padma* floral *umpak* in Central Java symbolizes purity, sturdy, and strong. *Umpak* symbolizes humans who are on the earth moving and moving, therefore, *umpak* has no roots. *Umpak* connected to the pillar or *soko guru* symbolizes its connection with the vertical world, Gods, and ancestors. The relationship can be seen from the following:

1. material aspect related to the construction and decoration of the *umpak*,
2. the immaterial aspect related to the difference in the size of the vertical and horizontal construction, and
3. the mystical aspect related to the establishment of *umpak* inserted with coins, gold, silver, and coconut oil carried out with ceremonies (Frick, 1980).

Stone mortars are made of whole stones hollowed out in the middle. The shape and technology of making stone mortar vary from simple to complicated (Wiradnyana, 2011). The irregular shape of the mortar usually utilizes existing rock shapes and is made using a simple technology. Stone mortar can function as a place of worship (sacred) as well as in daily life activities (profane) (Wiradnyana, 2011).

The stone mortars found at the *Keputren* Site are round square and unadorned. The function of the stone mortar is related to daily activities as a tool for pounding rice. Based on the records of Rijklof van Goens who visited the *Mataram* palace between 1648-1654 CE, the King has levied a tax on one real or ten measures of rice. Rice is collected and ground and then brought to the port for export (Lombard, 2008).



The stone mortar at the *Keputren* site is not maintained and is left in the yard of the house. The stone mortar is square, made of a whole stone hollowed out in the middle. It is different from stone dyes, the size is larger, and the inner hole is not round, but square like a tub of water. This has possibly been used as a drinking pot (*komboran*) for the farm animals such as horses and cows.

In addition to the findings of artifacts that are on the ground surface, some findings are in the ground. The excavations found several artifacts, eco-facts, and features in the form of brick structures, brick floors, temple stones, pottery/pottery fragments, ceramic fragments, metals, teeth, and animal bones. The brick structure consists of walls and drains. Wall structures are of two types, namely leather brick structures and stuffing bricks. The leather brick structure is an arrangement of parallel horizontal bricks (half bricks) with a certain distance and the gluing between the bricks using soil species. Leather brick structures are categorized as elongated or half-brick brick arrangements. The stuffed brick structure is in the form of two layers of brick structure with soil filling/brick fragments in the middle. The dimensions of the brick constituent of the structure have a length of 34-37 cm, a width of 16 cm, and a thickness of 5 cm. The rules of laying bricks in modern carpentry can be distinguished into;

- a) longitudinal or half-brick arrangement,
- b) transverse stone rules,
- c) cross transverse longitude rules,
- d) cross stone rules,
- e) Dutch rules, and
- f) Gothic stone rules (Frick, 1980).

Based on the difference in brick arrangement, the stuffed brick structure is estimated as the foundation of the building/fence, while the elongated (half-brick) leather brick arrangement as the wall of the moat/water channel. The findings of the aqueduct are in accordance with those mentioned in historical sources (*Babad Ing Sangkala*, *Babad Momana*, and ancient maps), that the *kedaton* Plered was surrounded by artificial lakes (*segarayasa*) and waterways around the palace. The relief andesite stone finds that correlate with brick structures is part of an aqueduct. The stone is thought to be a bathing shower. The ability to make water channels from stones to irrigate bathing showers has long been owned by the Javanese people.



**Fig. 4:** Brick structure and floor structure excavated on *Keputren* Site

Source: Author, 2023

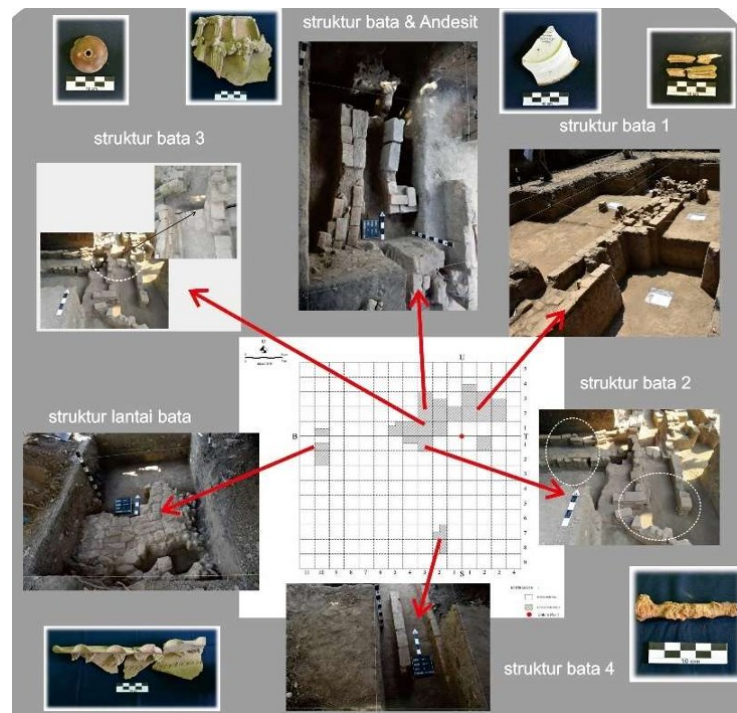
It is hypothesized that the rulers in Mataram have had small waterways channelled through their houses (Lombard, 2005). In addition, there is a brick structure with andesite stone that has a hole in the middle. Stone is thought to be the where the wooden board was placed as a sluice gate (Figure 4). The brick floor structure is in the form of a one-layer brick arrangement or structure with intact or incomplete bricks without any glue.

Pottery is constituted of clay items mixed with sand, shell fragments, rice husks, or mashed pottery shards (*grog*). They have the property of absorbing water because clay has a relatively medium to high permeabilities and is porous a lot. The burning temperature of pottery ranges from 350° - 1000° C (Sukendar, 1999: 59). Referring to the shape of pottery fragments on the edges / rims, bodies, and bases of pottery, it is identified as mostly undecorated (plain) containers although containers with decorations exist on the edges and bodies of pottery. Some of the pottery fragments are of varieties of terracotta artifacts of the Majapahit era. The containers found have been crocks, pots, vases, jugs, claps, jars, pots, candlesticks, bowls, plates, cups, and piggy banks. The existence of crocks, pots, latrines, jugs is thought to be related to its function as a water storage container.

Some interesting artefacts from the *Keputren* site is the discovery of fragments of ornamental bridges and ornate andesite stones. The existence of fragments of ornamented bridges is reminiscent of similar archaeological remains that has been found in the Majapahit era sites. Fragments of ornamented vases made of burnt clay (terracotta) have a function as containers, but judging from the decorated containers, the owner is thought to come from the nobility who came from the *keputren* area (Figure 5).

The existence of these containers is thought to be related to the function of the structure of the waterway, namely as a water storage container. This is also supported based on the findings of the brick structure which contains a layer of brick which is suspected as an effort to purify water (*pengindelan*). It can be imagined that these water containers with various shapes are placed on the right and left of the water channel structure, which at that time the water discharge was still heavy and relatively clean.

Fragments of ceramic artefacts found in various forms, namely the lid, body, and base. Ceramics are items made from porcelain and rock (Sukendar, 1999: 58). The identification of some ceramic fragments found at the *Keputren* site is mostly containers and non-containers.



**Fig. 5:** Distribution of archaeological remains from excavations of the Keputren site.

Source: Author, 2023

Ceramic fragments in the form of containers bear alphabetic text in Modern Javanese language. Non-container ceramic fragments are part of electrical equipment dating from the *Kedaton Plered* Sugar Factory era. Metal artefacts found at the *Keputren* site are 15 pieces in the form of pegs or nails. The existence of pegs and nails is suspected to be part of the pegs or nails of the lorry rail line. The existence of the Lori rail line nails is related to the establishment of the *Kedaton-Plered* sugar factory during the Dutch colonial period.

### ***Keputren Kedaton Plered* in Royal City Spatial Planning**

The Islamic Mataram Kingdom has an important role in the course of the history of Islamic kingdoms in the Indonesian archipelago. This is evidenced by the spirit of the Kings to expand the territory and change the society to Islam (Murdiyastomo, 2016). Kings have formed Islamic kingdoms because of acculturation between the pre-Islamic culture and Islam, so that many relics of Islamic kingdoms were preserved and spread throughout Indonesia (Kamal, 2016). The position of the city centre of the Islamic Mataram Kingdom is in a series of "links" in the history of cities in Java along with the development of urban spatial planning, and the life of the Javanese Islamic community (Murdiyastomo, 2016). The centre of the Islamic Mataram Kingdom has been motivated by the pre-Islamic culture with the shape of Majapahit city pattern as a reference for the Islamic Sultanate after the fall of Majapahit (Rukayah et al., 2023). The core adjustment of urban planning is found in worship buildings that are turned into mosques. The main components of the city are outer moats, city walls, road networks, markets, mosques, town squares, palace walls, palaces, residential areas, granaries, and cemeteries.

The kingdom made the city core and civic centre with a North-South axis. Kings built urban centres with magical-religious or cosmic considerations and local beliefs (Lynch, 1984) by building cities based on an imaginary North-South axis (Handinoto & Hartono, 2007). The King-built houses for the nobles, royal officials, courtiers, places of worship, and markets exist around the palace (Adrisijanti, 2000). The city centre is surrounded by the settlements grouped by ethnicity, type of work, and the place of origin (Rukayah et al., 2023) which illustrates its socio-cultural pattern. Evidence of this grouping can be seen from the toponyms that are still known today, such as *Kedhaton*, *Dalem*, *Kauman*, *Mutihlan*, *Pandheyan*, *Samakan*, *Sayangan*, *Jagalan*, *Mranggen*, *Prenggan*, *Trunojayan*, *Jogoragan*, *Boharen*, *Purbayan*, *Singosaren*, *Mondorakan*, and *Keputren* (Adrisijanti, 2000; Atmosudiro, 2002: 144).

The concept of development and spatial planning of *Kedaton Plered* still refers to the pre-Islamic period which refers to the concept of *Tri Hita Karana*, which divides space into three areas: namely, *pawongan*, *pahyangan*, and *palemahan*. *Pawongan* for daily human activities, *pahyangan* for spiritual activities, and *palemahan* for activities related to gardens, parks, and other agrarian activities (Kebudayaan, 2020). *Pawongan* is a residential location. *Pahyangan* is in the form of mosques, and *palemahan* is in the form of *krapyak*, agricultural land and plantations.

The King has had absolute power to use the land either to meet his own needs, or to be temporarily given to the servants (*sentono*) and the palace employees (*narapraja*) as *siti* or *bumi gadhuan*. The lands in Mataram according to their functions, are divided into: *bumi narawita* and *bumi lungguh*. *Bumi narawita* is a land that produces something (goods) determined and needed by the king in the form of; a) *bumi pamajegan*, which generates money taxes; b) *bumi pangrembe*, which is specially planted with rice and other crops for palace purposes; and c) *bumi gladak*, i.e. lands whose inhabitants are assigned the task of transportation, for example at weddings, births, deaths, and other feasts. *Bumi lungguh* or *land of apanage*, is a *gadhuan* given to servant (*sentono*) and palace employee (*narapraja*) as a salary, in the form of a suspended earth. The land was given to the *sentono* if they had a close kinship with the king and to the *narapraja* if they were still in government positions (Suhartono, 1991).

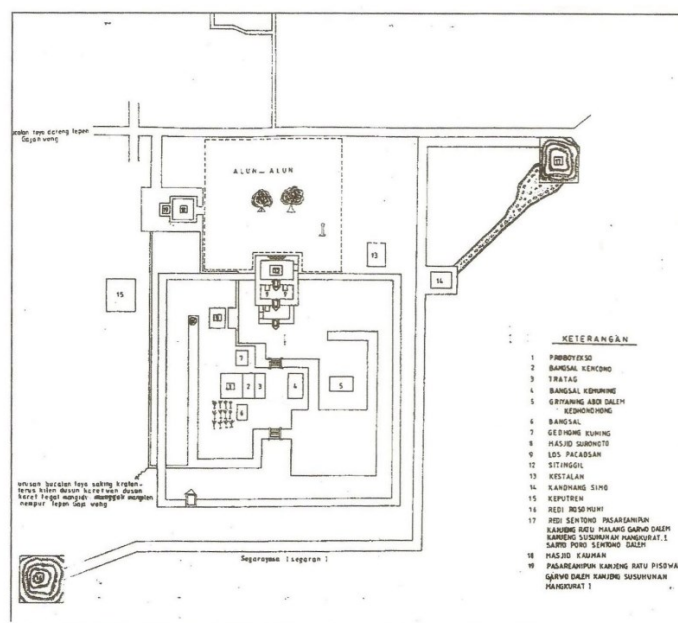
*Keputren Plered* is estimated to have been built during the massive construction of the *Plered* Palace, in the period of 1648-1654 CE. According to the records of *Babad Momana* and *Babad Ing Sangkala*, the main components of the palace around the *Cepuri* wall were outer forts, gates, *sitinggil*, *prabayeksa*, mosques, and *karadenan*. Based on the map of *Patilasan*



*Kraton Plered*, it is depicted that the location of *Keputren* is in the west outside the *cepuri* wall (Figure 6). *Keputren* has probably been built after the construction of *Kedaton* was completed. The placement of *Keputren* outside the *Cepuri* wall is one proof of the spatial dynamics of the Javanese Islamic palace, especially Islamic Mataram. The transfer of the location of *Keputren* into the palace *cepuri* wall began to be carried out when the palace was moved to Surakarta. This layout survived until the establishment of the Principality of Mangkunegaran (*Kadipaten Mangkunegaran*) (1757 CE) and Pakualaman (*Kadipaten Pakualaman*) (1813 CE) (Adrisijanti, 2000). The difference in structuring is related to the frame of mind and socio-political understanding at that time, especially the concept and history of the centre of power in the context of Islamic Mataram (Adrisijanti, 2000) and the social structure of the community (Junianto, 2019).

The existence of *keputren* in the palace layout of the early period of the establishment of Islamic Mataram (Kotagede and Kerta) did not exist, only when the capital moved to Plered was built *keputren*. The placement of *keputren* outside *cepuri* wall is because the area inside *cepuri* is a special residence of the King (palace) and is the most sacred place in the Javanese universe circle. In addition, the interior of the *cepuri* consists mostly of ponds and waterways. Location the placement of *keputren* is outside *Cepuri* wall, but it is still close to the palace making it easier for the king to access *keputren*. The spatial arrangement of the Islamic 'state' of Mataram, can be considered as two hierarchical systems that overlap (superimposed). The first circle system consists of three imaginary spatial lines that are considered sacred, namely the *nDalem* (noblemen's main house) boundary circle, the *Keraton* complex boundary circle and the great state boundary. The second circle system, also consisting of three spatial imaginary lines, is worldly profane. This profane circle, including the circle of boundaries of the *Keraton* complex (*parentah jero*), the circle of boundaries of the 'state' (the centre of the royal bureaucracy) and the circle of foreign borders. The superposition of the two circle systems symbolizes the principle of spatial planning of the Islamic Mataram state (Santoso, 1984b).

The creation of *Keputren* has been aimed to protect the King's wives and daughters. The architectural layout of the palace makes women and their spaces invisible to men, so it can be a way to regulate interactions between women and men, limiting the appearance and representation of women in the public eye. The position of the *keputren* in the palace layout serves as a mechanism to support the visibility of the centre as a male space. Sexual boundaries



**Fig. 6:** Keputren placement floor plan  
Source: Map of Patilasan Kadaton Plered

in the palace were also restricted through visibility which served as a device to demonstrate accessibility.

As an Islamic Kingdom, Mataram in realizing the visuals towards women refers to the Quran and is different from the Western traditions. Qur'anic verses explicitly command female and male believers to "lower their gaze" and "keep their modesty" (QS An-Nur 30-31). The visuals are arranged both to hide the women's space and to reveal the male space, where the King as the authoritative power holder is present or represented through his pavilions and mosques. The King's wives were made to be not visible to the public and managed in a way that subordinated them to the sultan's compound (Aryanti, 2016). The placement of *Keputren* as a special "palace" for women in addition to placing and protecting women is also in accordance with the Islamic teachings which are the basis of the Kingdom of Mataram.

Discourses about space, room, and place in traditional dwellings are generally understood from the dichotomy between the domestic sphere for women and the public sphere for men which reflects the dichotomy between private space and public space (Heynen & Baydar, 2005; Siwach, 2020). Domestic space is a space of women's power, private, and within the home (Cieraad, 2002; Robson, 2006), where women have the power to do anything to meet the daily needs of their families (de Certeau et al., 1998). Space in Javanese society is one unity with the universe; The outer space is part of the inner space, and *vice versa*. The unity of the spatial system is understood not only in terms of intellectual intelligence but also by feelings or spiritual intelligence. The benchmark of Javanese space lies in the combination of reasoning and feeling or thought processing. Javanese space is a unity of two opposites because the principle of harmony is not a competitive position but a side-by-side position to achieve harmony in life (Hastuti et al., 2023).

The concept of space includes aspects of place, time, and ritual. Its spatial sequence creates a symbolic narrative that is a path between the profane and the sacred. Traditional Hindu-Buddhist architecture in Java consists of radial paths or circles due to *mandala*-shaped floor plans. The meeting point of the radial path symbolizes the Axis Mundi while the circumnavigation path symbolizes a gradual approach to the divine (Trisno et al., 2020). In the hierarchy of Javanese palace spatial patterns, there are sacred and profane spatial structures (Behrend, 1983; Geldern, 1982; Tjahjono, 1989). This structure is supported by the concept that the main feature of Javanese space is its unity, sanctified with walls that form the boundary between the sacred area and the profane area.

This disposition model is known as the microcosm-hierarchical principle (Santoso, 2008). The surrounding wall is believed to be the centre that perfectly invites tangible and intangible cosmic forces (Wiryomartono, 1995). The sacred part as the core and centre of the microcosm is seen at the meeting of two or more elements that have sacred meanings (Marlina, 2020).

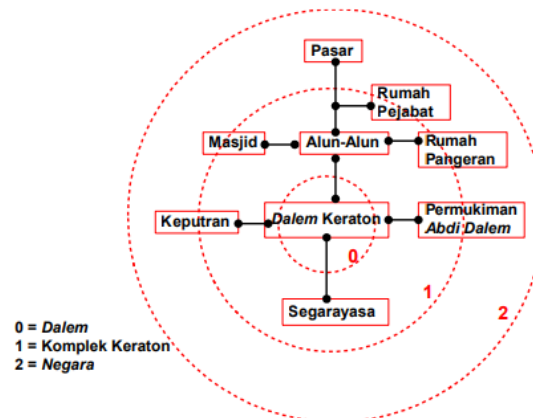


Fig. 7: Kedaton Plered spatial circle

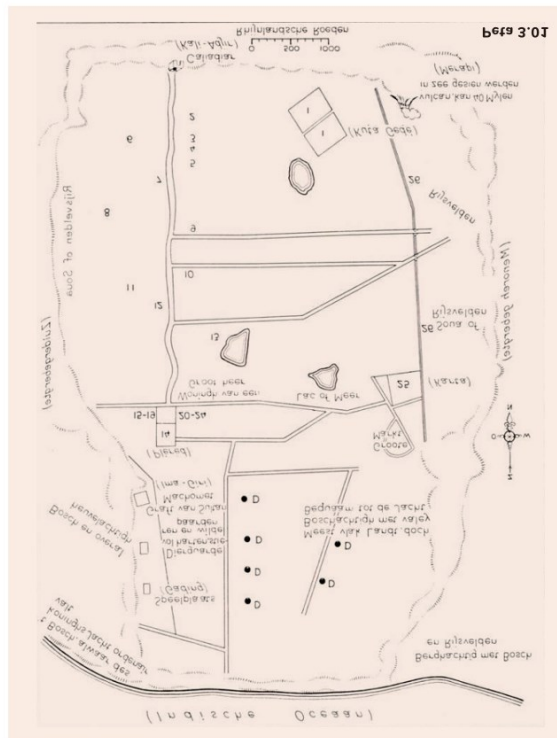
Source Junianto, 2019.



The layout of Javanese palaces consisted of concentric hierarchical patterns, separated by walls and gates (Figure 7). The deepest part located in the centre is called *Kedhaton/Kedaton/Keraton*, which is the most sacred region. This pattern shows a stratified hierarchical order, achieved through defining 'inside' and 'outside' (Geertz, 1980). The implementation of Javanese settlement planning is known as spatial hierarchy. The dwelling of a person who became a manifestation of the king, became the centre of the unity of the settlement, has the highest status. Other spaces, forming imaginary circles, are hierarchically lower status (Junianto, 2019).

Such spatial arrangements reflect the binary opposition of men and women, as understood in Javanese ethics. Traditional ethics arrange Javanese houses into men's space on the right and women's space on the left (Felisiani, 2009). The palace implemented stricter segregation to protect women. This spatial separation is clearly seen in the spatial arrangement of the palace. The locations of *keputren* (women's residence) and *kasatriyan* (precisely the residence of unmarried princes) were separated. *Keputren* was provided as a place for the sultan's consorts and concubines to live with their unmarried daughters (Lombard, 2008), children who had not yet reached puberty (until the age of 10), and their female servants (Aryanti, 2016).

The label *keputren*, or place of princesses, is a sign that conveys boundaries and limitations. The *keputren* label determines the use of a particular space for women through the exclusion of men, while simultaneously limiting itself as separate from its context. Such restrictions have the consequence of *keputren* exclusivity because women only limit the area in the palace and create a binary opposition between the women's area and the space outside it. The area outside is then seen as a male space, and results in the exclusion of women from other spaces, which according to this binary opposition is defined as the male space. Javanese traditional space is claimed to adhere to the concept of such opposition, which is seen in the layout of the palace (Santoso, 2008; Tjahjono, 1989). Although opposition occurs along the spectrum, allowing the emergence of categories in between, the primary setting openly reflects the binary system of male-female space (Aryanti, 2016).



**Fig. 8:** Map of the area around Kedaton Plered according to Rijklof van Goens  
Source: Lombard, 2008.

The placement of the location of *Keputren Kedaton* Plered seems to still refer to this ethic. The location of *Keputren* is to the left of the *cepuri*, while the *karadenan* (princely residence) is on the right slightly forward from the *cepuri* (Figure 8). The placement of the location of the *karadenan* in front of the *cepuri* shows that the princes have an obligation to protect women in the event of an enemy attack. *Karadenan* is a princely residence which usually consists of house buildings surrounded by perimeter walls and has its own army (Adrisijanti, 2000). Based on van Goens' map, the location of the *karadenan* located in the north of *kedaton* and *keputren* (in map no 2-12).

The location of palaces, mosques and squares contains many symbolic meanings. The palace symbolizes the ruler or power over the people, the mosque symbolizes religion as the protector of the people, and the square symbolizes the people themselves. The unity of palaces, mosques and squares symbolizes unity between the ruler, religion and the people, or the Javanese concept of "*jumbuhing kawulagusti*" (Anom, 1986). This concept is a doctrine of reciprocity, the moral responsibility of the king towards his people and the obligation of the people to obey the king's orders, which means that the king must carry out the duty of "*njaga tata tentreming praja*" (maintaining the security and tranquillity of the country) and the people must always "*ngemban dhawuh dalem*" (carry out the king's orders). Kings in the past knew very well that people always took refuge in religion to deal with the pressures of their environment, so kings often acted as representatives of God or God who had absolute power and controlled religion and had moral responsibility for the welfare of his people. This is manifested in the world of architecture, unified palaces, mosques, and squares (Punto et al., 2021). The king occupies the highest social and political position in Java because he is considered to represent and protect the interests of the people through the concept of *gustikawula* or master-servant (Larson, 1990). The position of the king is at the highest level of the structure of society and below the king, there are several groups of people based on their social class such as high officials namely nobles or *sentana dalem*, *priyayi* or courtiers consisting of government employees appointed from commoners, and a group of lower class people (*wong cilik*) called *Kawula dalem* or *Kawula negara* (Marlina et al., 2022; Soemardjan, 2009). The social structure of the kingdom has a clear hierarchy, namely the king at the top and the structure below, namely *sentana dalem* (royal family), *priyayi*, and *kawula* who occupy the lowest structure (Larson, 1990; Marlina et al., 2015; Moertono, 1985). The socio-political division can be seen from the pattern of residential placement in the *Kedaton* Plered area. The king who occupied the highest caste was in the centre of the Kingdom, surrounded by courtiers, princes, and court officials.

## Conclusion

The spatial pattern of the *kedaton* Plered refers to the balance of the macrocosm and microcosm by placing the Palace as the centre. The *kedaton* complex is described as the centre of the world surrounded by the ocean represented by the creation of water pools around the *kedaton*. The Royal Spatial Plan is divided into two areas, sacral which consists of a palace complex that is inaccessible to everyone, and profane which can be used by all levels of society.

The *Keputren Kedaton* Plered site has been one part of the urban spatial component of the Kingdom of Plered, certainly has an important role as well as other components. The existence of *Keputren Kedaton* Plered is the forerunner of a special place for women in the spatial layout of the Kingdom of Java, in the previous period there was no special building/place for women in the Palace environment. This causes the absence of specific guidelines or concepts related to the layout of the placement of *keputren* that should be inside or outside the fort. Location is no less important in its development. Related to the placement of the location of the *keputren* site, which is outside the *cepuri* wall, of course, it is not necessarily placed just like that, several factors have contributed to the placement of the *keputren*.

Based on the analysis, it can be concluded that the placement of *keputren* outside the *cepuri* wall in the Plered *kedaton* has been influenced by political and security factors, socio-culture, and religion. Political conditions at the time of the construction of the *Kedaton* (Palace) Plered has not been still not very stable, because there have been still rebellions and fears of

attacks from countries in East Java and the VOC. In addition, *cepuri* could have been the main target if there had been an enemy attack. Thus, placing the *keputren* outside the *cepuri* has been to avoid the danger of enemy attacks on *kedaton/cepuri*. The placement of *Keputren* outside the *cepuri* wall has been solely to provide security by placing it in a special location that is separate from the center of government in the *cepuri*. *Cepuri* as the centre of government like a capital city is a location that is quite busy and crowded, so *Keputren* "must" have been kept away from the noise.

Social and cultural factors in the form of the existence of *Keputren Kedaton Plered* are the forerunners of a special place for women in the spatial layout of the Kingdom of Java, in the previous period there has been no special building / place for women in the Palace environment. This causes the absence of specific guidelines or concepts related to the spatial layout of the placement of *keputren* that should be inside or outside the fort. The interior of the *cepuri* wall mostly have been consisted of ponds and waterways so that it can be troublesome for women in carrying out their daily activities. However, the location of the *keputren* placement outside the *cepuri* was still close to the palace, making it easier for the king to access it. Religious factors, because the area in the *Cepuri* wall was the most sacred place in the Javanese universe circle and became the special residence of the King. Women are not placed in the most sacred place, because at certain times (menstruation) it could be dirty, and it can disturb the sanctity of the palace.

The existence of the *Keputren Kedaton Plered* Site is known to be based on historical data (chronicles and ancient maps) and toponymy that has been proven by excavation results. The findings of archaeological data prove these sources, but how the shape of the building and its exact extent is unknown because the remains of artifacts are still very minimal. Based on comparisons with *Keputren* during the Islamic Mataram Kingdom of Surakarta and Yogyakarta, the location of *Keputren Kedaton Plered* probably consisted of house buildings surrounded by perimeter fences (not as high and thick as *cepuri* wall) with gates, like the houses of nobles or princes (*ndalem*) today.

This research has contributed immensely to an understanding of facts related to the location of *keputren* outside the palace. It is found that the way in which *keputren* has been located in the Royal Palace of the Mataram Kingdom is different from the spatial concept of the other Islamic Kingdoms of Indonesia where *keputren* is located in a palace surrounded by walls.

This study has limitations. One of the most significant of these is that the current location of *Keputren* has been turned into a settlement, making it difficult to track it in detail. Nevertheless, this research has divulged hitherto unknown facts related to this issue. This research is expected to draw attention of the local governments and the community to play a greater role in maintaining cultural heritage so that it is not damaged and lost. This research thus contributes to knowledge related to the historical value and spatial development of the Islamic *Mataram* Kingdom

## Acknowledgment

Authors wish to acknowledge the contribution of the Cultural Office (*Kundha Kabudayan*) of the Yogyakarta Province by providing funds and opportunities to excavate the research site: the *Keputren* site in August 2023.

## References

- Adrisijanti, I. (1985) Kota Kuno Plered DIY, Suatu Pengamatan Pendahuluan. *PIA III*, pp. 750–759.
- Adrisijanti, I. (2000) *Arkeologi Perkotaan Mataram Islam*. Djendela.
- Alifah, & Priswanto, H. (2012). Benteng Kraton Pleret: Data Historis dan Data Arkeologi. *Berkala Arkeologi*, 32(2), pp. 185–194.
- Anom, I. G. Ngurah. et. al. (1986) *Laporan Pemugaran Masjid Agung Demak*. Proyek Pemugaran Masjid Agung Demak Bantuan Presiden.

- Aryanti, T. (2016) Vision and Gendered Space: Making Women Invisible in Yogyakarta Sultanate Palace. *Space and Culture*, 20(3), pp. 301–314.  
<https://doi.org/https://doi.org/10.1177/1206331216647353>
- Astuti, R. T. (2015) *Kajian Fenomenologi “Abdi-Dalem Wanita” terhadap Konstruksi Teori Modal Sosial (Ruang Lingkup Penelitian: Abdi-Dalem Keputren Kraton Kasunanan Surakarta)* [UNS]. <https://digilib.uns.ac.id/dokumen/detail/50224/Kajian-Fenomenologi-Abdi-Dalem-Wanita-terhadap-Konstruksi-Teori-Modal-Sosial-Ruang-Lingkup-Penelitian-Abdi-Dalem-Keputren-Kraton-Kasunanan-Surakarta>
- Atmosudiro, S. (2002) Tata Ruang Permukiman Kota Gede Kuna dan Orang Kalang: Dalam Perspektif Profesionalisme Pekerjaan. *Jurnal Kebudayaan Kabanaran*, 2, pp. 143–160.
- Behrend, T. E. (1983) *Kraton and cosmos in traditional Java*. Madison: University of Wisconsin.
- Brandon, J. R. (2003) *Jejak-Jejak Seni pertunjukan di Asia Tenggara*. P4ST UPI.
- Cieraad, I. (2002) “Out of my kitchen!” Architecture, Gender, and Domestic Efficiency. *The Journal of Architecture*, 7(3), pp. 263–379.  
<https://doi.org/https://doi.org/10.1080/13602360210155456>
- de Certeau, M., Giard, L., & Mayol, P. (1998) *The Practice of Everyday Life, Vol 2: Living and Cooking*. Minnesota: University of Minnesota Press.
- Fajrin, J., Pathurahman, & Yusra, L. R. (2017) Pengembangan Desain Rumah Sederhana Berbasis Sistem Konstruksi Rumah Panggung Bima. *Konferensi Nasional Teknik Sipil* 11, pp. 63–72.  
[https://www.researchgate.net/publication/320840525\\_Pengembangan\\_Desain\\_Rumah\\_Sederhana\\_Berbasis\\_Sistem\\_Konstruksi\\_Rumah\\_Panggung\\_Bima\\_Konferensi\\_Nasional\\_Teknik\\_Sipil\\_11\\_Jakarta\\_26-27\\_Oktober\\_2017](https://www.researchgate.net/publication/320840525_Pengembangan_Desain_Rumah_Sederhana_Berbasis_Sistem_Konstruksi_Rumah_Panggung_Bima_Konferensi_Nasional_Teknik_Sipil_11_Jakarta_26-27_Oktober_2017)
- Favre, P. E. L. (1870) *Dictionnaire Javanais-Français*. Imprimerie Imperiale et Royale.
- Felisiani, T. (2009) *Pawestren pada Masjid-masjid Agung Kuno di Jawa: Pemaknaan Ruang Perempuan* [Skripsi]. Universitas Indonesia.
- Florida, N. (1995) *Writing the Past, Inscripting the Future: History as Prophecy in Colonial Java*. Duke University Press.  
<https://books.google.co.id/books?id=JtXWqGzfzGgC&printsec=frontcover&hl=id#v=onepage&q&f=false>
- Frick, H. (1980) *Ilmu Konstruksi Bangunan*. Kanisius.
- Funari, P. P. A., Hall, M., & Jones, S. (Eds.) (1999) *Historical Archaeology: Back from the Edge*. London: Routledge.
- Geertz, C. (1980). *Negara: The Theatre State in 19th Century Bali*. Princeton University Press.
- Geldern, R. H. (1982) *Konsepsi Tentang Negara dan Kedudukan Raja di Asia Tenggara (Seri Terjemahan ed.)* (D. Noer, Ed.). Cornell University Press.
- Graaf, H. J. de. (1986) *Puncak Kekuasaan Mataram: Politik Ekspansi Sultan Agung*. Pustaka Grafiti Press.
- Graaf, H. J. de. (1987) *Disintegrasi Mataram di bawah Mangkurat I*. Pustaka Utama Grafiti.
- Hall, M., & Silliman, S. W. (Eds.). (2006). *Historical Archaeology*. Blackwell Publishing Ltd.
- Handinoto, & Hartono, S. (2007) Jogjakarta and Cakranegara: An Initial Study on Two Capitals of The Last Kingdoms in the Archipelago (Until the 18th century) Designed Based on the Local Traditional City Planning. *International Seminar The Knowledge City: Spirit, Character, and Manifestation*, pp. 114–129.  
<https://123dok.com/document/myjpk6ql-proceedings-international-seminar-knowledge-city-spirit-character-manifestation.html>
- Hastuti, D. L., Syarief, A., Santosa, I. & Widodo, P. (2023) Pracimosono as a Place of Intimacy and Spiritual Experience for the Mangkunegaran Princesses in Surakarta, Indonesia. *ISVS e-journal*, 10(8), pp. 15–38.  
<https://doi.org/https://doi.org/10.61275/ISVSej-2023-10-08-02>
- Heynen, H., & Baydar, G. (2005) *Negotiating Domesticity: Spatial Productions of Gender in Modern Architecture*. New York: Routledge.



- Iriyanto, N. (2010) *Benteng-benteng Kolonial Eropa di Pulau Ternate: Dalam Peta Pelayaran dan Perdagangan Maluku Utara*. Universitas Gadjah Mada.
- Junianto. (2017) Pengaruh Kerajaan Islam Terhadap Pola Bentuk Kota Pasuruan. *Plano Madani: Jurnal Perencanaan Wilayah & Kota*, 6(1), pp. 27–35.  
<https://doi.org/https://doi.org/10.24252/jpm.v6i1.2521>
- Junianto. (2019) Konsep Mancapat-Mancalima dalam Struktur Kota Kerajaan Mataram Islam Periode Kerajaan Pajang sampai dengan Surakarta. *Mintakat: Jurnal Arsitektur*, 20(2), pp. 107–131. <https://doi.org/https://doi.org/10.26905/mj.v20i2.3987>
- Kamal, M. A. M. (2016). Interelasi Nilai Jawa dan Islam dalam Berbagai Aspek Kehidupan. *Kalam*, 10(1), pp. 19–42. <https://doi.org/http://dx.doi.org/10.24042/klm.v10i1.18>
- Kuijk, L., & Nagtegaal, L. (1995) *Javaense Reyse: de bezoeken van een VOC-gezant aan het hof van Mataram 1748 - 1654, ingeleid en van commentaar voorzien door Darja de Wever*. Terra Incognita.
- Larson, G. D. (1990) *Masa Menjelang Revolusi: Kraton dan Kehidupan Politik Di Surakarta 1912-1942*. Gadjah Mada University Press.
- Lombard, D. (2008) *Nusa Jawa: Silang budaya (Warisan Kerajaan - Kerajaan Konsentris) 3*. Gramedia Pustaka Utama.
- Lynch, K. (1984) *Good City Form*. Massachusetts: The MIT Press.
- Marlina, A. (2020) The Sacredness of Places in Magersari Sunanate Palace. *Cogent Arts & Humanities*, 7. <https://doi.org/https://doi.org/10.1080/23311983.2020.1832730>
- Marlina, A., Hardiman, G., Setioko, B., & Sari, S. R. (2015) Spatial Transformation Pattern of Dwellings of Javanese Nobles's Houses at the Palace of Surakarta Sunanate: Case study of Ndalem Purwodiningratan and Ndalem Suryohamijayan. *Advances in Environmental Biology*, 9(27). pp. 104-118
- Marlina, A., Musyawaroh, & Cahyono, U. J. (2022). The Spatial Patterns of Javanese Settlements as the Representation of Patron-Client Politics: Nobles, Ulemas, and Merchants' Settlements. *ISVS e-Journal*, 9(5), pp. 204–224.
- Moertono, S. (1985) *Negara Dan Usaha Bina-Negara Di Jawa Masa Lampau ; Studi Tentang Masa Mataram II, Abad XVI sampai XIX*. Yayasan Obor Indonesia.
- Murdiyastomo, H. Y. A. (2016) State and The Statecraft of The Centrals of Government Mataram Islam Kingdom in Java. *IJSS Journal of Social Studies*, 12(2), pp. 32–42.  
<https://doi.org/https://doi.org/10.21831/jss.v12i2.11634>
- Olthof, W. L., Teeuw, A., & Meinsma, J. J. (1941). *Poenika serat Babad Tanah Djawi wiwit saking Nabi Adam doemoegi in taoen 1647*. M. Nijhoff.
- Orser, C. E., & Fagan, B. M. (1995) *Historical Archaeology*. Harper Collins College Publishers.
- Poerwadarminta, W. J. S. (1939) *Baoesastra Djawa*. J. B. Wolters Uitgeversmaatschappij.
- Priswanto, H., Dewanti, T. K., Andamaranti, L., Ardana, H. V. Y., Panjinagara, R., Mulia, F. R., Priyanto, N., Nuryadi, Santoso, P., & Supriyanto. (2023) *Laporan Ekskavasi Situs Keputren*.
- Punto, H. E., Ratih, S. S., Siddhi, S. & Indriyanto. (2021) Demak Kingdom: Study of Environmental Condition and Geographical. *E3S Web of Conferences*, pp. 1–10.  
<https://doi.org/https://doi.org/10.1051/e3sconf/202131704023>
- Ras, J. J. (1992) The Babad Tanah Jawi and Its Reliability: Question of Content, Structure, and Function, in *Cultural Contact and Textual Interpretation* Vol. 10, pp. 180–225. KITLV Press.
- Ricklefs, M. C. (1978) *Modern Javanese Historical Tradition: A Study of An Original Kartasura Chronicle and Related Materials*. School of Oriental and African Studies, University of London.
- Robson, E. (2006) The 'Kitchen' as Women's Space in Rural Hausaland, Northern Nigeria. *Gender, Place & Culture: A Journal of Feminist Geography*, 13(6), 669–676.  
<https://doi.org/https://doi.org/10.1080/09663690601019869>
- Rukayah, R. S., Vania, S. A., & Abdullah, M. (2023) Old Semarang City: the sustainability of traditional city patterns in Java. *Journal of Asian Architecture and Building*



- Engineering*, 22(1), pp. 68–83.  
<https://doi.org/https://doi.org/10.1080/13467581.2021.2024196>
- Rukayah, S., Giovano, F. A., & Abdullah, M. (2023) The Loss of Old Demak Sultanate City Pattern. *Journal of Architecture and Urbanism*, 47(2), pp. 146–162.  
<https://doi.org/https://doi.org/10.3846/jau.2023.17855>
- Rusyanti. (2021) Umpak Batu: Jejak Konstruksi Bangunan Masa Lampau di Lampung Barat. *Kindai Etam*, 7(1), pp. 17–30. <https://doi.org/10.24832/ke.v7i5.91>
- Santoso, J. (1984a) *Konsep Struktur dan Bentuk Kota di Jawa s/d Abad XVIII*. Institut Teknologi Bandung.
- Santoso, J. (1984b) *Konsep Struktur dan Bentuk Kota di Jawa s/d Abad XVIII*. ITB.
- Santoso, J. (2008) *Arsitektur-kota Jawa: Kosmos, Kultur & Kuasa*. Centropolis - Magister Teknik Perencanaan Universitas Tarumanegara.
- Saraswati, R. S. (2015) Penelusuran Hubungan Kawasan Bersejarah masjid Agung Demak dengan Masjid Kadilangu. *Jurnal Ilmiah Teknosains*, 1(1), 57–68.
- Sengupta, A. R. (2005) The Devaraja Cult in South Asian Art & Architecture. *National Museum Institute Monograph Series No. 2*.
- Siwach, P. (2020) Mapping Gendered Spaces and Women’s Mobility: A Case Study of Mitathal Village, Haryana. *The Oriental Anthropologist*, 20(1), pp. 33–48.  
<https://doi.org/https://doi.org/10.1177/0972558X20913680>
- Soemardjan, S. (2009) *Perubahan sosial di Yogyakarta*. Komunitas Bambu.
- Soeratman, D. (2000) *Kehidupan Dunia Keraton Surakarta 1830–1939*. Yayasan Untuk Indonesia.
- Suhartono. (1991). *Apanage dan Bekel, Perubahan Sosial di Pedesaan Surakarta 1830–1920*. Tiara Wacana.
- Sukendar, H. (1999) *Metode Penelitian Arkeologi*. Pusat Penelitian Arkeologi Nasional.
- Tim Peneliti Pusat Studi Kebudayaan. (2020). *Toponimi Kecamatan Kotagede: Sejarah dan Asal-Usul Nama-Nama Kampung*.  
<https://kebudayaan.jogjakota.go.id/assets/instansi/kebudayaan/files/kajian-toponim-kota-yogyakarta-kecamatan-kotagede-4507.pdf>
- Tjahjono, G. (1989) *Cosmos, Center and Duality in Javanese Architectural Tradition: The Symbolic Dimension of House Shapes in Kota Gede and surroundings*. University of California, Berkeley.
- Trisno, R., Claudia, K., & Lianto, F. (2020) Spiritual Architecture in the Context of Java. *ISVS e-Journal*, 7(3), pp. 40–48.
- Wiradnyana, K. (2011) Lesung Batu, Cerminan Pandangan Hidup Masyarakat Batak Toba. *Berkala Arkeologi Sangkhakala*, 14(2), pp. 266–286.  
<https://doi.org/10.24832/bas.v14i2.148>
- Wiryomartono, B. (1995) *Seni Bangunan dan Seni Binakota di Indonesia Kajian mengenai Konsep, Struktur, dan Elemen Fisik Kotasejak Peradaban Hindu Budha, Islam hingga Sekarang*. Gramedia.