

Pattern and type permanence in the Kasongan area: Typomorphology study towards a sustainable Pottery Tourism Village

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ARTICLE INFO	ABSTRACT
<p><i>Article history:</i> Received December 20, 2021 Received in revised form April 01, 2022 Accepted June 29, 2022 Available online August 01, 2022</p> <p><i>Keywords:</i> Kasongan Permanence Spatial pattern Spatial type Typology-morphology</p> <p>*Corresponding author: Rony Gunawan Sunaryo Department of Architecture, Faculty of Engineering, Universitas Atma Jaya Yogyakarta, Indonesia Email: ronygunawan@uajy.ac.id ORCID: https://orcid.org/0000-0002-8525-6704</p>	<p><i>The study aims to determine the pattern and type permanence levels of the elements used to build the Kasongan area in the last 60 years. Permanence is an approach used to determine identity in the context of regional change. Kasongan is a rural-urban area with agrarian resources located between Bantul and Yogyakarta and influenced by urban globalization. This historic area is almost two centuries old and has developed into a village of pottery craftsmen. Adaptation to environmental and cultural changes after the 1960s made Kasongan transform from an agrarian village character to an industrial and then to a tourism village-town. Changes in this region can be seen in the building and area typology, which developed into a sustainable tourism area. The locus taken is a part of the Kajen and Beton Hamlet, which are indicated as early stages of growth and development direction for the Kasongan in the last few decades. The study is a typo-morphological study carried out using a morphological mapping method and a regional typological process. The results found spatial patterns and types that (1) persisted as the initial identity, (2) changed, and (3) disappeared.</i></p>

Introduction

The Kasongan area has emerged in a constellation of historical events in Yogyakarta and surrounding regions since the 19th century. The earliest event was recorded in the Chronicle of Diponegoro (Carey 2015; Gustami, Wardani, and Setiawan 2014), namely two pesantren (Islamic education institution) leaders who died during the Java War in 1825. One of them is Kyai Guru Kasongan Abdulraup (Kyai Song), whose grave is properly preserved in the southern part of the region. Apart from the Java War, the tension between the Kasongan people and the Dutch East Indies government was also depicted by the icon of a horse statue, signifying one of the events.

In the early 19th century, the Kasongan community started to make pottery a dominant

part of their regional and socio-economic system. This condition initiated the change from a Javanese agrarian village to that of pottery. However, this historical area is relatively two centuries old. Rapid changes have occurred in terms of design, production, technology, and materials in the past 60 years, where the once traditional pottery craftsmen's villages have been transformed into strategic tourism areas in Yogyakarta (Raharjo 2009b; Gustami, Wardani, and Setiawan 2014; Pemerintah Provinsi Daerah Istimewa Yogyakarta 2019).

The Master Plan for Regional Tourism Development of the Special Province of Yogyakarta (2019) adopted a strategy to develop Kasongan as a tourist area with indications related to its physical arrangement, including craft displays, workshop, and performance areas, as

well as to use various elements of local culture, to develop the regional environment (Pemerintah Provinsi Daerah Istimewa Yogyakarta 2019). Regarding the current phenomenon of this area, there are certain physical diversities: houses and workshops, with traditional pottery production in some blocks, while studios and galleries are displaying contemporary art products.

Several sources depicted the globalization factor of the 80s as the dominant external feature influencing economic, social, and technological development in Kasongan (Raharjo 2009b; Wijaya 2015; Fatonah and Afifi 2008). Its current appearance is a mixture of traditional and contemporary designs. Gustami, Wardani, and Setiawan (2014) raised this theme in *Keramik Kasongan Heritage's* book. It was asserted that the process of change was adapting the community to economic, cultural, and technological factors. This resulted in diversity and became an aspect of the Kasongan's unique heritage.

Nasser (2003) critically analyzed this local culture transformed into a tourist consumption product. In response to commercial pressures, it is common that the conservation of cultural values tends to compromise consumer demands. The major concern is that local culture will lose its identity and be replaced by a global 'cultural industry' (Oncu and Weyland 1997; Nasser 2003). Raharjo (2009a) did not deny that globalization is the driving force behind Kasongan's change and has added new colors in the past few decades. Ernawati and Mahmudah (2016) carried out some studies on the strategies employed in this area. They stated the need for special interest tourism by emphasizing product authenticity and originality, sustainable innovation, maintaining a local cultural atmosphere, and the uniqueness of the pottery arts and crafts. The tension between the old and new is always perceived as a dichotomy in historical planning areas: amid the perfect idea of preserving the heritage for intrinsic values and the need for development.

Regarding the architectural response to the globalization era, Hidayatun (2018) stated that three parameters, namely universal or global, and local values and identity, are a complete series in the context of sustainable planning and design. Curtis (1985) further argued that architectural sustainability can be fabricated with identity capital in the form of a connection between universal [international] and local [regional] values. In the urban context, identity is also known as *genius loci* or the spirit of a place, and certain parameters such as unity and diversity are always present in all its landscapes.

Based on adopting a morphogenetic approach, Conzen stated that the townscape concept serves as a bridge used to describe the historicity of an area. The recent architectural designs on buildings need to complement the historical character of that region (Slater 1978; Conzen 1966). Worskett (1969) further expressed that townscape describes the assemblage of individual buildings that leads to an urban atmosphere. The local one is recognizable and triggers continuity as well as connects the preserved and changing elements. This deduction depicts the significance of the connectedness in terms of supporting the area's sustainability.

The reading of the pattern and element permanence through typomorphology with a rural-urban locus in Indonesia is still a developing study in architectural and regional planning as indicated in table 1. This research focuses on mapping the architectural character of the Kasongan area in the past 60 years. It is also aimed at mapping the various spatial patterns and types: related to (1) persistence, (2) change, and (3) loss. In accordance with the need for sustainable tourism industry, reading this character becomes an important aspect of discovering the actual identity of the Kasongan area. This study aims to fill knowledge gaps, especially the permanence level at the rural-urban locus, which quickly changes by employing the typomorphological method.

Table 1. Novelty

Focus	Locus	Method	Researcher
Javanese cultural identity in the design of the Juragan	Laweyan village	-	Cahyono, Setioko, and Murtini (2015)
Level's house and residential permanence	Kulon Progo coastal settlements	-	Marwasta and Priyono (2016)
Changes and sustainability of the lopo building as part of the tradition	Kaenbaun village, Timor	Qualitative phenomenology	Purbadi (2017)

Focus	Locus	Method	Researcher
The transformation and permanence of the colonial period's downtown spatial pattern	Cities in Java	Typomorphology	Sunaryo et al. (2013)
The permanent function of the urban village since the 18th century	Luar Batang village, Jakarta	City morphology	Puspitasari et al. (2011)
Saujana's permanent village community	Borobudur village, Magelang	Historical interpretation	Rahmi et al. (2012)
Change and persistence of local Islamic values in the gampong	Geulanggang Bates, Southwest Aceh Regency	Qualitative phenomenology	Wulandari et al. (2020)
Change and permanence to determine local village planning concepts	Ngadas village, Malang	Morphology	Santoso and Wikantiyoso (2018)
The permanence of the ecological concept in the village	Bendosari village, Malang	Qualitative descriptive	Titisari, Santoso, and Suryasari (2012)
Changes in human relations and the context of the tourism village context	Kasongan village, Bantul and Importantsari village, Sleman	Case study	Pudianti, Suprapti, and Syahbana (2019)
The permanence of the city pattern and its artifacts	Southeast Asian Cities	Morphology	Widodo (2010); (2012)

Method

Since the early independence era, the Kasongan area seizes to be identified within the scope of government administrative boundaries (Gustami, Wardani, and Setiawan 2014). According to Gustami, it was situated under Dusun Kajen, Bangunjiwo Village, Kasihan Sub-district. During the grand tour, it was discovered that the placement of the Kasongan markers (regional gates) and the building of the contemporary ceramic industry was towards the eastern side, namely part of Beton Hamlet, Tirtonirmolo Village, Kasihan Subdistrict. For both areas, the locus of this study was carried out by adopting a morphological periodization approach and a description of the typological process.

Similarly, Whitehand et al. (2014) combined two different approaches, namely the Conzenian and Caniggian traditions, where morphological changes were mapped as a background for understanding the emergence of new types. Empirical studies carried out 'synchronic and diachronic' analyses to ascertain the changes and persistence of spatial morphology and the emergence of various building types. Historical readings aid one in understanding the chronological sequence of morphological changes at the regional scale. Data and information were collected from literature sources, and maps were redrawn due to the separate layers of the area-forming elements. Meanwhile, the most recent ones were obtained

during the grand tour and walk-through methods, especially to validate the level of change and persistence of certain types of buildings in the analysis stage.

The graphic abstraction process was also carried out at the analysis stage during the layer-forming elements of the area to facilitate an understanding of the morphological periodization while simultaneously abstracting the modeling of specific building types to comprehend the typological process. The matrix in table 2, referring to the three different shapes of the map, can be arranged to conceive the elements' permanence.

Result and discussion

Kasongan socio-economic transformation

Geographically, the Bedog River, which transports fine alluvial sand from Mount Merapi, overflows Kasongan. This sand is used to manufacture ceramics. Furthermore, the clay is grayish-black in color, and its plasticity is suitable for making similar products (Gustami, Wardani, and Setiawan 2014). The hills and their surrounding forests also provided firewood in the early era for burning pottery (Wijaya 2015).

At the beginning of the 19th century, as an agrarian society, the culture of processing pottery into daily functional tools was common. For over a century, Kasongan produced cooking utensils, food, drink, and water containers using traditional

methods and prioritizing functional aspects. Afterward, approximately from early 1900 to 1950, this development was dominated by the need for a place to save money – such as piggy banks and wall decorations (Raharjo 2009a); art sculptures and ornamental pots appeared in the 30s; flower pots manufactured with the sticky technique were seen in the 80s; sculptures produced with the paste procedure in the early 70s, and architectural elements were manufactured in 1985.

The variety of non-functional products for people's daily needs has existed since the early 20th century, but the momentum for change was witnessed in the 60s. The mass production of these necessities made of iron or plastic with modern fabricated technology makes pottery tools less competitive. Its drastic decline in the market significantly impacted traditional pottery craftsmen in Kasongan. Raharjo (2009a) stated that in the 60s, this community was described as a relatively isolated poor village. To gain access to the area, one needed to cross the Bedog River using a raft. Through the initiation of prominent artists from Yogyakarta, Supto Raharjo and Larasati Soeliantoro Soelaiman stated that the embryos of art production, originally regarded as a sideline, have since become the focus of the artisan manufacturing development.

Since then, Kasongan has gradually received attention both on a national and international scale through events, exhibitions, and sales. This community is progressively connected to external actors who influence design, production, technology, and product marketing. Therefore, it had transformed from a village full of pottery craftsmen in the mid-20th century to artistic ceramic industry in the early 21st century.

Considering the use of technology, production scale, and marketing, the ceramic industry in Kasongan has transformed from a traditional to a modern one. The home industry is a household handicraft business that employs approximately one to four workers, and its activities are concentrated in the community (Praditya 2010). It also employs traditional production processes and management (Tambunan 1999). Several industries in Kasongan, from technological, production scale, and marketing management, have been developed into modern establishments (Iryadini 2010).

The demographics of the population also show an increase in the composition of ceramic industry craftsmen. In 2003, there were 336 business units

with 1,662 workers in Kasongan. In 2008, the region experienced a post-earthquake; and in 2006, the number of artisans scattered in Sentanan Hamlet, Kalipucang Hamlet, Tirto Hamlet, Sembungan Hamlet, and Gedongan Hamlet increased by 421 business units, each of which involved a minimum workforce of 10 people.

Based on the total number of registered business units in Kasongan, there were five large firms, 255 small industries, and 241 home industries, with a workforce of 1,174 people. In 2017, there were 441 pottery business units with a workforce of 2,367 people, and the production rate was approximately 1,400,000 pieces per year. Based on these data, it was concluded that the industries in this community were never reduced rather, it continues to grow (Dinas Pariwisata dan Kebudayaan Kabupaten Bantul 2003; 2015; Raharjo 2009b; Swesti, Soeprihanto, and Widiyastuti 2020). The following table shows the occupations in Bangunjiwo Village in 2013, 2017, and 2020.

Table 2. The Population Demographics of the Bangunjiwo Village based on Occupation in 2013, 2017 and 2020

Occupation	Year		
	2013	2017	2020
Retired	231	926	481
Entrepreneur/trader	755	1.429	1.575
Farmer	2.056	1.043	1.277
Laborer	3.729	2.652	2.695
Breeder	362	379	280
Government employees	485	937	546
Craftsman	410	1.276	634
Art worker	9	27	147
Other	518	968	655

Source: data processing from the Monograph of Bangunjiwo Village in 2013, 2017 and 2020

Generally, from the literature review, the development periodization of the Kasongan area can be structured as follows:

1. 1825 to 1960: The era of an agrarian society with limited pottery production for household needs;
2. 1960 to 1970: The era of production crisis, the influence of leading artists, and the manufacturing of pottery ornaments and souvenirs;
3. 1970 to 1980: Kasongan production became known through exhibitions of handicrafts and ceramic arts in the era of international and national publicities;
4. 1980 to 1990: The era of exportation, tourism-economy, technological changes, production

- variations (pottery, art, and global market demand), declaration of a pottery tourism village, and small-medium scale industry;
- 1990 to 2000: The era of the initiation of highly artistic products, the peak of production, global export market, and varieties of small-medium scale industries;
 - 2000 to 2020: The era and initiation of ceramic and craft arts centers.

Meanwhile, based on the grand tour of Kasongan in 2021, certain relative dynamic changes were observed:

1. The typology of the diverse buildings consists of residential houses, shops, production workshops, and galleries;
2. A variety of block characters in the area consists of residents with courtyards, shopping complexes, galleries, and mixed blocks;
3. Ages of the diverse buildings.

Morphological and typological analysis of Kasongan



Figure 1. The ground figure and a chronological stage map of the typology distribution

It was reported that in 2021, Kasongan will be developed into a pottery and handicrafts center on

a provincial scale. The typology of the diverse buildings starts with a residential complex, with an additional function as a small pottery industry. Furthermore, its distribution extends to the north in the form of settlements as well as a growing pottery industry.

The formation of the Kasongan craft center, shown in figure 1, is categorized into four stages, starting from a residential area erected beside the pottery industry and the emergence of a production workshop that occupies the main corridor. The stages are categorized as follows:

1. Pottery Village (1825 to 1965);
2. Pottery and Arts Village (1965 to 1985);
3. Pottery Tourism Village (1985 to 2000);
4. Craft Center (2000 to present).

The morphological mapping was arranged over ten years ago, starting from 1960 to 2020, by dividing it into four layers of area-forming elements, namely buildings, solid-void areas, roads, and natural contexts.

Building layers

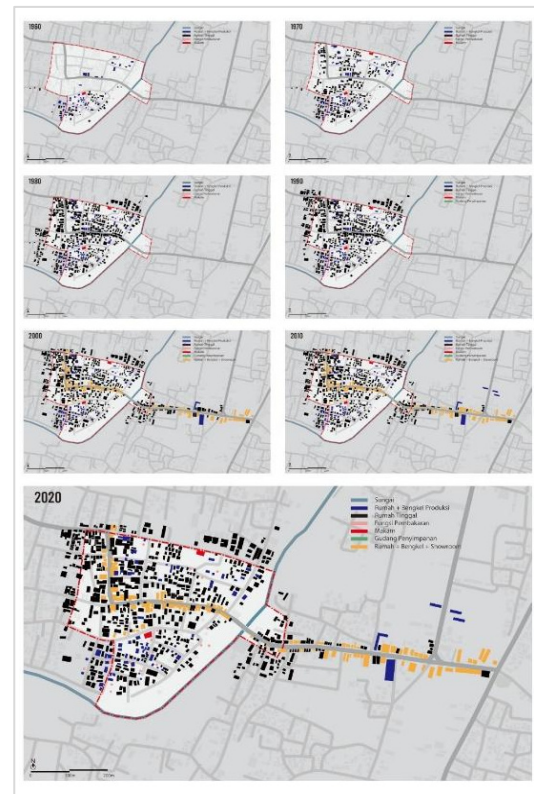


Figure 2. Mapping of building developments in Kasongan

The interpretation of the building layer shown in figure 2 indicates that the 1960s and 1970s were concentrated on the southern side, close to the Kyai Song Tomb, and on the western by the Bedog River flow. Residential functions and purposes dominate the typology of the building with various local roofs, srotongan, limasan shields, and comedy pyramids. In figure 3, the main buildings are generally situated in the middle with relatively large open spaces and no physical fences. There are several production areas adjacent to the main residential building with various grilled roofs and village gables. The development tends to be moving from the south to the northern part, irrespective of whether these two decades were not the most dynamic era during the Kasongan morphological period.



Figure 3. Typology of traditional houses with a simple production workshop

The 80s was marked by the emergence of mixed housing with production workshops and shops, as shown in figure 4. This is in addition to the increasing demand for Kasongan ceramics industry. Based on the spatial arrangement, the dwelling is generally situated at the inner part of the site, while the production workshop is on the side, and the shop in front of the house and also serves as a transition between the dwelling and the production workshop.



Figure 4. Initial typology of mixed pottery shop with residential houses

In the early 90s, there were indications of several changes in the building materials and construction process. The use of bamboo and wood was gradually replaced with bricks and concrete. The building, originally erected on the ground, was vertically raised to the second and third floors, as shown in figure 5. In the 80s and 90s, various styles emerged with a flat roof model and a popular concrete molding for the typology of residential houses on the island of Java. Industrial-driven functions such as the Technical Implementation Unit were developed (Department of Industry and Trade of Yogyakarta Province). It is perceived as an agent of change in production technology.



Figure 5. Current typology, the mix of shops and houses

From 2000 to 2010, there was a dynamic change in Kasongan with a new typology, such as a single function shop, workshop, production warehouse, and art studios and galleries. In the 20th century, similar art studios were found in Jempuk workshops heavily stuffed with a locally made artifact. Sapto Hoedjo and Larasati raised the artistic aspect of Kasongan pottery to an international level in the 70s. Production and commercial activities were distinguished from residential functions during this period. The craftsman's residence was no longer the spatial center of this new typology.

The small and medium-sized single-store typology was dominated by simple and functional architectural designs or forms. The roof shape was made from various local materials such as clay tile covering, fiber cement, or zinc, as shown in [figure 6](#). The single shop building seems to dominate the collector road connecting Bantul Street to Bangunjiwo Village.



Figure 6. Typology of single building shops

The studio-gallery function focused on producing and developing decorative ceramic artworks, along with the peak of Kasongan product exports during this period. Generally, it is a building of relatively large sizes, and their facades tend to be more attractive than their surroundings. The eclectic architectural style on the frontage is dominated by natural materials such as stone and wood, as shown in [figure 7](#). The studio-gallery presentation area is periodically used for exhibition. This differs from the store, which serves as a functional product presentation area. The production regions are often separated from the studios and galleries. Therefore, there

are a variety of separate production workshops and warehouses.

This new typology does not replace those in previous periods, although it is developed in sites that originally functioned as fields or yards. Referring to its functions, this was indicated to move northward and especially eastward across the Bedog River. Production workshops and warehouses were usually located further north of the collector roads. Meanwhile, shops, studios, and art galleries are found on the collector roads.

In the early periods, one thing that continued was the exhibition of pottery or ceramic products in the front area or as part of the building's facade in the shop. The relatively visible difference is based on the fact that the variety of goods produced in the newly emerging shops or galleries is no longer dominated by pottery or ceramics, rather it includes the production of natural stone, rattan, water hyacinth, and wood. This is the distinguishing character of the area on the eastern side of the river, which is more diverse than the western part. Apart from these shops, there is a gallery belonging to artists, some of which are regularly used for exhibitions, as shown in [figure 7](#). For example, one of them is Timboel Art Gallery, owned by Timbul Raharjo. Initially, it was a craft shop that was later transformed into a gallery after the 2006 earthquake.



Figure 7. Typology of galleries

Road layer



Figure 8. Mapping of road development in Kasongan

The mapping shown in [figure 8](#) depicts that in the 1960s, there were only local roads within the Kasongan area that tended to be introverted. This community, the capital city of Bantul Regency, and the provincial capital of Yogyakarta are separated by the Bedog River. The only link is a bamboo bridge that is only accessible to pedestrians and two-wheeled vehicles, which were independently built in 1955. The connection was improved by constructing a more permanent concrete bridge in 1974 and renewed again in 2003 with a wider one.

[Raharjo \(2012\)](#) stated that it had the ability to bear heavier loads. At the beginning of the observation period, the roads in Kasongan were mostly dirty until it was cemented with clay fragments and pavements on the edge of the main road in 1985.



Figure 9. Road in front of a row of shops that have been equipped with sidewalks

The general road hierarchy from the 60s to the 70s was relatively similar in the form of environmental roads. Gradually from the 80s to the 90s, new road sections were formed with the addition of a hierarchy other than environmental ones, namely village and district roads. Several environmental roads were constructed until 2020, while the hierarchy of the district connecting Bantul and Yogyakarta and the village linking Kyai Song's Tomb remained unchanged. The majority of the roads in the 1990s were paved with asphalt, and it was increasingly improved considering the intensity of visitors and production transport vehicles, as shown in [figure 9](#).

The defined regional blocks of road sections in the 60s and 70s appeared heterogeneous. The blocks were measured at 200 x 200 meters in areas with low building intensity. Meanwhile, smaller blocks measuring 100 x 200 meters in larger areas were formed. From 1980 to 2000, it seemed as if land consolidation occurred, and open spaces gradually began to be filled with buildings. New streets appeared that made the block size seem smaller than before. It appears to be more homogeneous, with an average block size of 150 x 150 meters. In the commercial and tourist areas, smaller block sizes are more appropriate because they respond to the demands of connectivity and proximity.

Solid-void layers and regional natural context



Figure 10. Mapping the development of solid-void elements in Kasongan



Figure 11. Void elements (gardens) that have turned into solid elements (storage)

The Kasongan area, originally characterized as an agrarian village landscape, is presently more inclined toward a handicraft industrial village landscape. In the pottery production context, the burning process, which had gradually changed since the 80s from field to open-pit stoves (tobong), has also caused the area's atmosphere to be more heavily concentrated in mass than in open spaces. The direction of mass consolidation, which was initially concentrated around the Bedog River regarded as a source of water and pottery craft materials, gradually seemed to fill the district roads, which had the highest hierarchy.



Figure 12. Mapping of the natural context development in Kasongan

In the natural context mapping, there is no change in the morphology of the Bedog River, as shown in figure 12. This usually occurred due to the displacement of its function and mass orientation of the river and main road. However, this condition is in line with technological changes in the 80s when Godean clay mixed materials were introduced. In the 90s period, there was a business scope for specialist ceramic crafts

material suppliers. The Kasongan craftsmen are tied to the accessibility of visitors for their business continuity.

Green open spaces in rice fields and gardens are gradually decreasing. The remaining ones are tombs, road spaces, private courtyards, and the Bedog River, whose public access is relatively closed. The open space in Kyai Song's tomb area is quite persistent. It is irreplaceable by other functions, especially those related to its cult as an elder of the Kasongan, as shown in [figure 13](#) Region ([Raharjo 2012](#)).



Figure 13. Kyai Song's Tomb

Permanence of Kasongan area

Generally, from the perspective of the typological function, all the buildings erected in the 60s remained persistent until 2020. Referring to [table 3](#), it is evident that there was an increase in the diverse typology of these buildings in the

past periods, such as studios and art galleries. Currently, based on the composition aspect, it shows that the mixed function of housing, production workshops, and shops are the unique characteristics of Kasongan. In the past few decades, there seems to be a separation between functions that were originally concentrated on one side, which is commonly seen in one site. Although in another block, the area still seems to perform mixed functions.

Currently, the area is characterized by the colored typology of the shops and galleries separated from modern production workshops and warehouses. Its mixed functions have slowly diminished in dominance, although it is still persistent. It is important to note that contemporary art galleries have started to grow in the past two decades, not only focusing on ceramic production but also the rattan, stone, and wood art imported from other places.

The persistent road structure is focused on the main link connecting Bantul and Yogyakarta. Since the 90s, it has been characterized as a commercial corridor, which is also indicated by the intensity of traffic and concentrated vehicle parking areas. Moreover, village and neighborhood roads on the north-south side have slight dissimilarities. The relatively narrower width of the road and the low vehicle intensity is used to characterize private residential streets. There are few shops in these sections and several residential houses, production workshops, and warehouses.

Table 3. Various economic activities in the Semarang Chinatown area

Elements of urban tissue	Pottery vilage		Art and pottery vilage		Pottery tourism vilage		Craft center		Permanency
	1960	1970	1980	1990	2000	2010	2020		
Building	House + Production workshop	■	■	■	■	■	■	■	persistent
	Production workshop			■	■	■	■	■	changing
	House + Workshop + Shop			■	■	■	■	■	persistent
	House + Shop		■	■	■	■	■	■	persistent
	Shop				■	■	■	■	persistent
	Studio/Art gellery				■	■	■	■	persistent
	Warehouse				■	■	■	■	changing
	Field stove	■	■	■	■	■			extinct

Elements of urban tissue	Pottery village	Art and pottery village	Pottery tourism village	Craft center	Permanency			
	1960	1970	1980	1990		2000	2010	2020
Street	Furnace						changing	
	Local street						persistent	
	Collector street						persistent	
	Sidewalk						persistent	
Plots	Settlement						persistent	
	Industrial center						persistent	
Natural context	River						persistent	
	Farm field						changing	
	Graveyard						persistent	

The open space elements of the Bedog River and the Kyai Song Tomb are the core constituents of the area. However, no prominent physical character of the two elements makes visitors realize their historical significance. Rice fields and gardens are no longer used to distinguish the present Kasongan area. The remaining ones are currently small courtyards from the northern and southern blocks of the area, which are relatively far from the main road.

Based on the discussion section in this study, it was discovered that the level of permanence in the elements used to build the Kasongan area is illustrated in [diagram 1](#), namely:

1. The spatial patterns and types that have emerged since the 1960s, especially in a mixed-function typology: houses-workshops-shops that in totality was 44.2% dominated the Kasongan area.
2. The minimal change in the spatial pattern and type was detected in all buildings' materials and construction processes in this area. A more moderate level was noticed in the change in production workshops and shops separated from the residents and the presence of new warehouses and art galleries. Meanwhile, a significant change in Peru was based on the fact that the open spaces used for rice fields and gardens, especially in the eastern part of the area, were replaced by buildings with new architectural styles and displays of contemporary art productions that were not limited to ceramics.

3. The lost spatial pattern and type is an open area space, where rice fields or gardens are replaced with building masses. Significant mass compaction has been witnessed in recent decades.

Of the relatively two centuries of this region's existence, it can be seen that the past six decades have been the most significant transformation process. Kasongan was transformed from a pottery industrial village and a tourist destination to the center for ceramics and crafts. The public's response to the economic crisis in the 60s became the main driver of change and external factors related to the presence of artists who changed aspects and scale of design, production technology, and marketing.

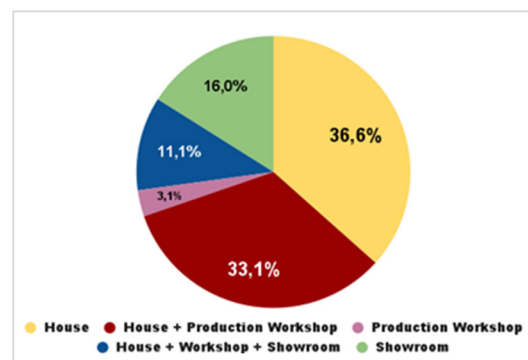


Diagram 1. Percentage of building typology in Kasongan

Traditional pottery production with a low-temperature burning technique exists in

Kasongan, as indicated by the persistent typology of wood-fired stoves. However, the dynamic global market demands and promotes designs, technologies, and marketing updates. New typologies such as the house-production-store mixed-function indicate this adaptive response. The variety of pottery production with simple functions is simultaneous with contemporary ceramic art products in Kasongan. The non-ceramic items produced from outside the area have recently appeared in the shop and gallery typology. Locally characterized ceramic handicraft commodities, common in the 70s and 80s, have received a lot of global influence from 1990 to 2000, mainly due to national and international market demands. The initial character of the area as a pottery village is still persistent in some regions, with the addition of new colors to characterize the contemporary art gallery in the main corridor.

Kasongan goes through a natural adaptation process, from the adoption of a survival strategy to a tourism and industry management approach. In the tourism context, great potential was identified to boost the region's historicity and unique significance. First is its relatively old age. Second, Kasongan is part of the history of the national struggle. The third is the uniqueness of its townscape. The morphological and typological transformation processes from a pottery village - a traditional character - to a craft center with a contemporary characteristic - are traceable and can be arranged in a townscape-based tourism scenario.

The role and large portion of the local community in Kasongan is a potential for sustainable tourism because there is a balance between the preserved historic elements and the new developments that follow the time dynamics. Referring to Nasser (2003), 1) tourism encourages local, regional, and national scale economic development, creates jobs, and boosts foreign exchange, 2) it has the potential to trigger demands for building preservation, 3) tourism can trigger the renovation of abandoned buildings, 4) it appreciates historic areas as well as contribute to the understanding of local and cross-cultural values.

Conclusion

The mapping of the permanence level of spatial patterns and types associated with the elements used to develop the Kasongan area is shown in Table 2. These include: (1) spatial patterns and types that persist as the initial identity (green line), (2) its change (yellow line), and (3) lost (red lines). Regional morphology is gradually described in each part of the area. Changes in each phase of Kasongan history can be seen from the persistent diversity of patterns and spatial types, leading to its uniqueness and historicity potential.

This study promotes the historical aspect of pattern and spatial typology in this community as part of the sustainable development of tourism. However, it is necessary to complement the study of tourism management and economics because it is limited to townscape studies with morphological-typological analysis. Similarly, more in-depth research needs to be carried out to assess the significance of historically valuable buildings, thereby leading to more detailed guidelines for asset management steps.

References

- Cahyono, Untung Joko, Bambang Setioko, and Titin Woro Murtini. 2015. 'Konsistensi Pernaungan Dalam Transformasi Rumah Jawa Modern Pada Abad Ke 20 Di Laweyan Surakarta'. In *Prosiding Seminar Kota Layak Huni / Livable Space*, 180–91. Jakarta: Jurusan Arsitektur FTSP, Universitas Trisakti. <http://www.trijurnal.lemlit.trisakti.ac.id/index.php/lslivas/article/view/2385>.
- Carey, Peter. 2015. *Takdir : Riwat Pangeran Diponegoro (1785-1855)*. 3rd ed. Jakarta: Kompas.
- Conzen, M. R. G. 1966. 'Historical Townscapes in Britain: A Problem in Applied Geography'. In *Northern Geographical Essays*, edited by G. H. J. Daysh and J. House. United Kingdom: Oriol.
- Curtis, William J. R. 1985. 'Regional Architecture Session 3'. In *Regionalism in Architecture*, edited by Robert Powell. Singapore: Concept Media/Aga Khan Award for Architecture.
- Dinas Pariwisata dan Kebudayaan Kabupaten Bantul. 2003. *Buku Monografi Kecamatan Pundong, Semester I, Tahun 2003*.

- Yogyakarta: Dinas Pariwisata Dan Kebudayaan Kabupaten Bantul. Yogyakarta: Dinas Pariwisata dan Kebudayaan Kabupaten Bantul.
- . 2015. *Buku Monografi Kecamatan Pundong, Semester I, Tahun 2015*. Yogyakarta: Dinas Pariwisata dan Kebudayaan Kabupaten Bantul.
- Ernawati, Hani, and S. A. Mahmudah. 2016. 'Strategi Pengembangan Desa Wisata Seni Dan Kerajinan Kasongan, Bangunjiwo, Bantul, Yogyakarta'. *Jurnal Kepariwisata* 10 (3): 49–64.
- Fatonah, Siti, and Subhan Afifi. 2008. 'Difusi Inovasi Teknologi Tepat Guna Di Kalangan Wanita Pengusaha Di Desa Kasongan Yogyakarta'. *Jurnal Ilmu Komunikasi* 6 (1): 41–56.
<http://jurnal.upnyk.ac.id/index.php/komunikasi/article/view/39/43>.
- Gustami, S. P., Laksmi Kusuma Wardani, and Agus Heru Setiawan. 2014. *Keramik Kasongan Heritage*. Edited by Timbul Raharjo and Wahyu Tri Atmojo. Jakarta: Direktorat Pengembangan Seni Rupa.
- Hidayatun, Maria Immaculata. 2018. *Jatidiri Arsitektur Indonesia, Regionalisme Dalam Konsep Bhineka Tunggal Ika*. Bantul. K-Media. <https://core.ac.uk/outputs/237150410>.
- Iryadini, Lisnawati. 2010. 'Analisis Faktor Produksi Industri Kecil Kerupuk Kabupaten Kendal'. Universitas Diponegoro. [http://eprints.undip.ac.id/26544/1/Skripsi...2\(R\).pdf](http://eprints.undip.ac.id/26544/1/Skripsi...2(R).pdf).
- Marwasta, Djaka, and Kuswaji Dwi Priyono. 2016. 'Analisis Karakteristik Permukiman Desa-Desa Pesisir Di Kabupaten Kulonprogo'. *Forum Geografi* 21 (1). <https://doi.org/10.23917/forgeo.v21i1.1819>.
- Nasser, Noha. 2003. 'Planning for Urban Heritage Places: Reconciling Conservation, Tourism, and Sustainable Development'. *Journal of Planning Literature* 17 (4): 467–79. <https://doi.org/10.1177/088541220301700401>.
- Oncu, Ayse, and Petra Weyland. 1997. *Space, Culture and Power: New Identities in Globalizing Cities*. London, United Kingdom: Zed Books.
- Pemerintah Provinsi Daerah Istimewa Yogyakarta. 2019. *Peraturan Daerah (PERDA) Tentang Rencana Induk Pembangunan Kepariwisata Daerah Provinsi Daerah Istimewa Yogyakarta Tahun 2012-2025*. Indonesia: LD.2019/NO.1. <https://peraturan.bpk.go.id/Home/Details/108358/perda-no-1-tahun-2019>.
- Praditya, Maningar. 2010. 'Analisis Usaha Industri Gula Jawa Skala Rumah Tangga Di Kabupaten Wonogiri'. Universitas Sebelas Maret. <https://digilib.uns.ac.id/dokumen/download/12672/MjcyMzI=/Analisis-usaha-industri-gula-jawa-skala-rumah-tangga-di-kabupaten-wonogiri-abstrak.pdf>.
- Pudianti, Anna, Atiek Suprpti, and Joesron Ali Syahbana. 2019. 'The Tools of Qualitative Approach to Measure Rural Transformation: The Case of Yogyakarta Rural Village'. *TATALOKA* 21 (1): 11. <https://doi.org/10.14710/tataloka.21.1.11-22>.
- Purbadi, Yohanes Djarot. 2017. 'Continuity and Change Dalam Arsitektur Vernakular: Kajian Fenomena Lopo Di Desa Kaenbaun'. In *Seminar Nasional Riset Dan Teknologi Terapan Ke-7 (Ritektra VII)*. Kupang: Program Studi Arsitektur, Fakultas Teknik, Universitas Katolik Widya Mandira. <http://e-journal.uajy.ac.id/24512/>.
- Puspitasari, Popi, Achmad Djunaedi, Sudaryono, and Bakti Setiawan. 2011. 'Dinamika Pemanfaatan Lahan Kampung Bersejarah "Luar Batang" - Jakarta Utara'. *Forum Teknik* 34 (1): 27–38.
- Raharjo, Timbul. 2009a. *Globalisasi Seni Kerajinan Keramik Kasongan. Institutional Repository ISI Yogyakarta*. Yogyakarta: Program Pascasarjana Inst.
- . 2009b. *Historisitas Desa Gerabah Kasongan*. Yogyakarta: Program Pascasarjana Institut Seni Indonesia.
- . 2012. *Kasongan Art Festival*. Yogyakarta: Program Magister Tata Kelola Seni Pascasarjana ISI Yogyakarta.
- Rahmi, Dwita Hadi, H.A Sudibyakto, H. Sutikno, and Laretna T. Adishakti. 2012. 'Pusaka Saujana Borobudur: Perubahan Dan Kontinuitasnya'. *Jurnal Manusia Dan Lingkungan* 19 (1): 85–94. <https://jurnal.ugm.ac.id/JML/article/view/18456/11749>.
- Santoso, Dian Kartika, and Respati Wikantiyoso. 2018. 'Faktor Penyebab Perubahan Morfologi Desa Ngadas, Poncokusumo, Kabupaten Malang'. *Local Wisdom: Jurnal Ilmiah*

- Kajian Kearifan Lokal* 10 (2).
<https://doi.org/10.26905/lw.v10i2.2678>.
- Slater, T.R. 1978. 'Family, Society and the Ornamental Villa on the Fringes of English Country Towns'. *Journal of Historical Geography* 4 (2): 129–44.
[https://doi.org/10.1016/0305-7488\(78\)90184-6](https://doi.org/10.1016/0305-7488(78)90184-6).
- Sunaryo, Rony Gunawan, Nindy Soewarno, Ikaputra, and Bakti Setiawan. 2013. 'Colonial and Traditional Urban Space in Java: A Morphological Study of Ten Cities'. *DIMENSI (Journal of Architecture and Built Environment)* 40 (2).
<https://doi.org/10.9744/dimensi.40.2.77-88>.
- Swesti, Woro, John Soeprihanto, and Dyah Widiyastuti. 2020. 'Model Pengembangan Pariwisata Kreatif Untuk Mencapai Keberlanjutan Di Desa Wisata Kasongan'. *Jurnal Kawistara* 10 (3): 295.
<https://doi.org/10.22146/kawistara.44157>.
- Tambunan, Tulus. 1999. *Perkembangan Industri Skala Kecil Di Indonesia*. Jakarta: Mutiara Sumber Widya.
- Titisari, Ema Yunita, Joko Triwinarto Santoso, and Noviani Suryasari. 2012. 'Konsep Ekologis Pada Arsitektur Di Desa Bendosari'. *Review of Urbanism and Architectural Studies* 10 (2): 20–31.
<https://doi.org/10.21776/ub.ruas.2012.010.02.3>.
- Whitehand, J W R, Kai Gu, Michael P Conzen, and Susan M Whitehand. 2014. 'The Typological Process and the Morphological Period: A Cross-Cultural Assessment'. *Environment and Planning B: Planning and Design* 41 (3): 512–33.
<https://doi.org/10.1068/b39097>.
- Widodo, Johannes. 2010. 'Wisdoms in Human Settlements : Learning From Southeast Asian Cultural & Environmental Holistic Sustainability'. In *International Conference Local Wisdom in Global Era: "Enhancing the Locality in Architecture Housing and Urban Environment"*, UKDW Yogyakarta, 21-22 January 2011, 21–28. Yogyakarta: Universitas Kristen Duta Wacana.
http://www.irbnet.de/daten/iconda/CIB_DC22846.pdf.
- . 2012. 'Urban Environment and Human Behaviour: Learning from History and Local Wisdom'. *Procedia - Social and Behavioral Sciences*.
<https://doi.org/10.1016/j.sbspro.2012.04.161>.
- Wijaya, Cristian Ari. 2015. 'Sejarah Perkembangan Kerajinan Keramik Kasongan Bantul 1987-2012'. Universitas Sanata Dharma.
- Worskett, Roy. 1969. *The Character of Towns: An Approach to Conservation*. London: Architectural Press.
- Wulandari, Elysa Wulandari, Burhan Nasution, Masdar Djameludin, and Farisa Sabila. 2020. 'Proses Tumbuh Kembang Permukiman Perdesaan Muara Sungai Di Pesisir Barat Aceh Dan Adaptasi Berkelanjutannya, Kasus: Gampong Geulanggang Batee, Kabupaten Aceh Barat Daya'. *Jurnal Arsitektur ZONASI* 3 (3): 195–208.
<https://doi.org/10.17509/jaz.v3i3.27873>.

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Rony Gunawan Sunaryo contributed to the research concepts preparation, methodologies, investigations, data analysis, visualization, articles drafting and revisions.

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