STUDY OF JAVANESE TRADITIONAL ARCHITECTURE: BANGSAL BUILDING AT PAGELARAN AND SITIHINGGIL LER AREA OF YOGYAKARTA PALACE

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Abstract

Complex of Yogyakarta Palace is home to the King, as the center of the royal government and as a cultural center, which consists of building is a traditional Javanese-style, which is so very important. As a protected heritage building laws and as the nation's cultural heritage, Yogyakarta Palace buildings and distinctive characteristics, namely among others his age who had long, especially in the Complexity construction and beauty of the ornaments.

Development of the Era, civilization and culture, has influenced the diversity of buildings in Complex of Yogyakarta Palace with various functions and forms. While still steeped in Javanese traditional style of architecture, but there are some European-style buildings, this is not apart of history, that the Kingdom also experienced the Dutch colonial period. The study of Traditional Architecture in the Java of Yogyakarta Palace complex, needs to be done to assess the existence of Javanese traditional buildings, identify the form of buildings, history, function and meaning of buildings and equipment components. The studies were carried out direct observation of the results to the object, literature studies, interviews and a review of previous research earlier.

The expected result is a document written about aspects of the history, function and meaning of the building along with building form drawings and detail drawings that show the uniqueness of the building. This study is expected to become knowledge and guidelines for building preservation and the inspiration of Traditional Javanese cultural development in the future are sourced from local culture, and became the driving young people to still love their own culture.

Key words: Javanese Traditional, Buildings, Yogyakarta Palace

I. Preliminary

Yogyakarta Sultanate Palace is located in downtown of Yogyakarta, Special Privince of Yogyakarta, established in 1755 as a result of Giyanti agreement on February 13, 1755 between Prince Mangkubumi (brother of Sunan Pakubuwono II, king of Surakarta Palace) with the Dutch VOC (Noto Suroto, 1985/1986).

Another important development is that the sultan's palace no longer has the power like in the beginning, is now his domain is oriented in the social field of Javanese culture as stated by Sri Sultan Hamengkubuwono X at the inauguration of a king of Yogyakarta Palace, which to X. Therefore Palace has now developed into a center of Javanese culture (Eko Putro Hendro G, 2001 in Tri Yuniastuti and Satrio HB Wibowo, 2007) while maintaining the life of Javanese culture in every step of everyday life in the Kingdom both in the architectural, traditional Javanese customs, dances, shadow puppets, singing, music and other things that relate to javanese culture.

From the architectural side, according to the Center of Yogyakarta Archaeological Heritage Preservation, 2003 and from various sources is known that the peak of the visual manifestation of Yogyakarta palace architecture in the reign of Sri Sultan Hamengkubuwono VIII (1921-1939) as we see today. Previously, the palace buildings gradually awakened by the powerful kings of his time starting from the wards and Siti Hinggil Prabayaksa Lor in 1769; Exhibition hall with bamboo tratag in 1896; the use of marble from Italy to ward Kencana in the Sri Sultan Hamengkubuwono VI and Sweet and complex Siliran wards in the Sri Sultan Hamengkubuwono VII.

In the sultan's palace, traditional Javanese architecture is an architectural style of the principal/main. This can be seen by the number of buildings Traditional of Javanese style. It is also proposed in Javanese palace (1991) that the most important buildings in the Kingdom to use the roof joglo (typology of traditional Javanese architecture) that form from the pyramids and trapezoidal. Similarly, put forward by Eko Punto Hendro G., in Tri Yuniastuti and Satrio HB Wibowo (2007) that evaluated from the roof, the buildings at the Palace use gable, *Limasan*, *tajug* and *joglo* (typology of traditional Javanese architecture.)

One form of buildings in the Palace area is characterize the traditional Javanese architecture building is the hall. The building is open (pendhapa). From the observations so far recorded at least there are 20

buildings in the form named bangsal (open building / pendhapa) in the palace is a form of native Javanese traditional house building, such as Bangsal Kencana, Bangsal Sri Manganti, Bangsal Ponconiti, Bangsal Manguntur Tangkil, Bangsal Witono and other buildings with their different functions.

In the particular bangsal buildings of Traditional style Java is used as a place with the main functions/importance in the Kingdom. Buildings such as sheds Manguntur Tangkil used as his throne the King when his inauguration; Bangsal Kencana that serves as a place to receive state guests and internal events of the royal family; Bangsal Witono as a place of royal heritage jamasan ceremony performed by King special, as well as building-other buildings that carry out important functions.

On the whole, and especially the bangsal building with traditional Javanese architecture style using the typology roof Joglo, Limasan, and Tajug. The average frame bangsal were decorated ornament (decoration) complex, unique, meaningful, philosophical, aesthetic and so typical of Java of the interior into a beautiful, graceful, stately and artistic.

Characteristics of the bangsal buildings at the Palace with Java Traditional style with various accessories into something unique, rare and valuable historical high. The uniqueness and scarcity occur given that it is only in the sultan's palace buildings were located and sustainable. Even the development of Joglo typologies with the highest classification joglo lambang gantung developed by Sri Sultan Hamengkubuwono I also only exist in the Sultan's Palace. Worth of history, given that traditional-style buildings in the palace built by Javanese kings of Java since hundreds years ago that represents the greatness and beauty of his day. Now these buildings into heritage of priceless value, as well as the cultural roots of Java and the Indonesian people in general and Indonesia in particular the root architecture.

II. Javanese Traditional Architecture

A. Typology of Javanese Traditional Architecture

According to HJ Wibowo (1986) and Arya Ronald (1997) architectural form of traditional buildings in particular Java Yogyakarta Special Region is divided into 5 (five) typology, namely: 1) Panggang Pe, 2) Kampung (Pelana); 3) Limasan; 4) Joglo; and 5) Tajug. The forms of the tiered architecture of the perfection of its architecture. The first tier

(lowest) to highest is roasted panggang pe typology, Kampung, Limasan, Tajug and Joglo. Still according to HJ Wibowo (1986) typology of the whole each have variant forms that differ.

Panggang Pe typology is a variant of seven species of principal Panggang pe, Gedhang Selirang, Empyak Setangkep, Gedhang Setangkep, Ceregancet, Trajumas and panggang pe combination.

Typology of Kampung have 10 (ten) variants, namely Kampung Principal, Pacul Gowang, Srotong, Dara Gepak, Klabang Nyander, lambang teplok,, Tinandu Semar, gajah Njerum, cere gancet and Semar Pinondong.

Tipologi Limasan has a number of 17 (seventeen) variants, namely Limasan Principal, lawakan, gajah ngombe, gajah njerum, apitan, Klabang Nyander, Pacul Gowang, gajah Mungkur, Cere gancet, pengapit, lambang teplok, Semar Tinandu, Trajumas, Trajumas lambang Gantung, , Trajumas lawakan, lambang Sari, and sinom lambang Gantung frame Kutuk Ngambang.

Typology Joglo has 8 (eight) variants, namely Joglo Principal, Lawakan, Sinom, Jompongan, Paangrawit, Mangkurat, Hageng and Semar Tinandu.

While the typology Tajug have 7 (seven) variants, namely Tajug Lawakan, Lambang Teplok, Semar Tinandu, Lambang Gantung, Semar Sinongsong Lambang Gantung, Mangkurat and Ceblokan. In the Java community, Tajug typology commonly used for worship buildings is a mosque and Islamic religion or violating (HJ. Wibowo et al, 1986/1987).

Some of the traditional typology of Java can be seen in the following figure:

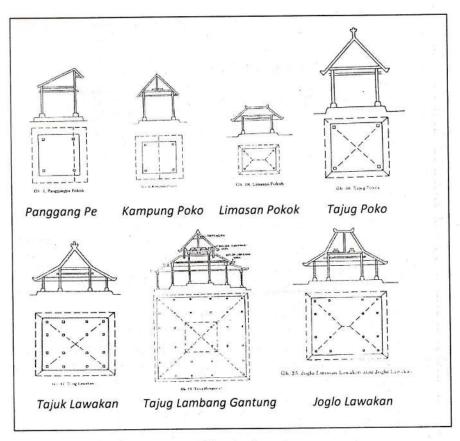


Figure . 1.
Building Typology of Traditional Javanese (DIY)
Source: HJ Wibowo, et al., 1986/1987

B. Java Structures and Construction Building Systems

Building construction is a relationship between building components (foundation floor, walls, pillars, beams, ceiling, roof), with a relationship of mutual dependence, with a specific purpose that is supporting the usefulness (functioning) (F), strength (S), durability (D) and security (S). (Aryo Ronald, Ir, 449).

System in building structures such *joglo* is very closely related to the construction between components, because the overall harmony, inter-related. Construction work starts from the bottom of the building components (foundation), then further upwards until the top component. The development also resulted in the development of *joglo* form the structural system and construction. (Aryo Ronald, Ir, 281)

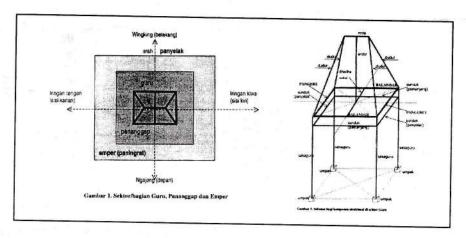


Figure 2.

Distribution of roofing sector and components of center sector

Source: Prijotomo J., 2005

C. Ornaments on Traditional Architecture of Java

Ornament is a component of the art product that is added or deliberately made for the purpose as a garnish. Besides his job to decorate, for example, to add to the beauty of a product so that more good and interesting, consequently affecting also in terms of appreciation in terms of both spiritual and material aspects / financial. In addition, in the ornament often found are the symbolic values or specific purposes related to the view of life (philosophy) the human or the creator of society, so that the object by an ornament will have a further meaning, accompanied by certain expectations as well (Drs. Gustami, SP, 1980.4). Meanwhile, according to Slamet DS (1985, h.180), general decoration used on traditional Javanese building tangible relief (relief).

In his book Theme's Architecture Traditional of Yogyakarta, HJ. Wibowo et al (1986/1987) revealed that for Traditional Javanese architecture, ornament is useful to give the beauty of the building. It is expected that the beauty that is created will create peace and coolness for the occupants. There are 2 forms of ornamentation are the ornaments that are not constructional and constructional. What is meant by constructional ornaments are ornaments made together with the building. While no constructional ornaments are ornaments that can be separated from the building (ornaments patches).

Still according to the HJ. Wibowo et al. (1986/1987), ornaments in Javanese traditional architecture consists of 5 groups: 1) the flora, 2) groups of fauna, 3) natural group; 4) religion and belief, and 5) others.

Flora group consisted of 8 types of ornaments which are: 1) lunglungan, placement in the beam frame house, pamidangan, doors, windows and patang aring; 2) saton, placement at top and bottom of saka, blandar, sunduk, tumpang beam, ander and field filler of door; 3) wajikan, placement on the middle pillar of the building, crossing point / angle oblique to the fence building; 4) nanasan, placements under angle of tumpang beam, the middle of dada peksi, tip of saka bentung; 5) tlacapan, placements across the framework of the building; 6) kebenan, placement on blandar tumpang buttons, and the lower end saka bentung; 7) Patran, placement of the blocks on the right and left dhadha peksi, inside blandar tumpang (singup), blandar penanggap and penitih; and 8) padma, with placement at the base of the column (umpak/ pedestals).

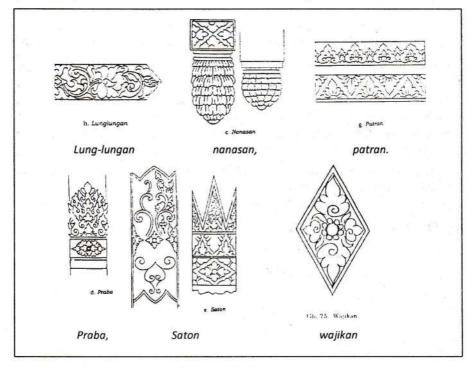


Figure 3. Example Variety Ornamental Flora Source: HJ Wibowo, et al., 1986/1987

Fauna group consisted of 5 types namely: 1) kemamang, placement on the mask of the gate building, the castle and the entrance, 2) peksi garuda, placement on the ridge of the building, tebeng (board above the door and windows, central senthong, patang aring; 3) dragon, placement on the gate, house ridge; 4) jago, placement on the ridge of the building and 5) mirong, placement on the pole (saka) building and saka Santen.

Meanwhile, religious groups and the trust consists of 2 types of *mustaka* and calligraphy. According to Agus Suwarto (2009), *mustaka* in Javanese traditional architecture using the pattern in the form of ornamental plants *kluwih* leaves and *gada*. *Kluwih* Leaves implies *linuwih* means perfect or has a surplus. While *gada* has a single definition that is to admit the oneness of God the Almighty. Placement *mustaka* ornaments placed on top of buildings with a rod tip is the highest. And the second type of calligraphy, placement on the building frame.

III. Spatial of Kraton

Formerly the main part of the palace, from north to south, starting from Gladhag Gate in the north to the south Plengkung Nirboyo. Main parts of Yogyakarta palace from north to south are: Gladag-Pangurakan Gate; Alun-alun Ler Complex (North Field) and the Masjid Gedhe (Masjid Raya Kingdom); Pagelaran Complex, Siti Hinggil Ler Complex, Kamandhungan Ler Complex; Sri Manganti Complex; Kedhaton Complex; Kamagangan Complex; Kamandhungan Kidul Complex; Siti Hinggil Kidul Complex (now called Sasana Hinggil); and Alun-alun Kidul (South Field) and Plengkung Nirbaya commonly called Plengkung Gadhing (http://id.wikipedia.org/wiki/Keraton_Ngayogyakarta_Hadiningrat, 2009).

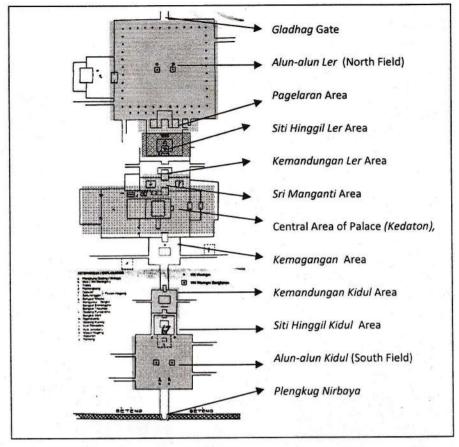


Figure 4.

Space Layout of Yogyakarta Palace

Source: data applied to the map

IV. Variety Building in Yogyakarta Palace

Physically architectural (a building). buildings in the district court using the traditional style of Java to the specific form *pendapa* building form, roof *joglo*, *tajug*, *Limasan and Kampung* (Eko Putro Hendro, 2001 and Djauhari Sumintardjo, 1978).

In terms of its nature, the buildings at the Palace consists of open building that is without the wall covering room and closed the building (there are wall coverings). The building opened in the Palace called a bangsal and is completely covered (with lid wall) is called a gedhong. (KPH. Brongtodiningrat, 1978). What has been proposed KPH

Brongtodiningrat, reinforced by Tontje Tnunay (1991) who was also promoted to the Palace consists of *gedhong* (building walls) and *bangsal* (not-walled building).



Figure 5.
Several *bangsal* buildings in Yogyakarta Palace
Source: Observations, 2009

Other buildings in the Palace is a building that has been exposed to the influence of European Classical architecture. The influence of the sultan's palace buildings resulted in the emergence of elements of Classical architecture of Europe into the palace buildings which raises new buildings European Classical style, particularly in *Gedhong* and *Regol* buildings. (Tri Yuniastuti and Satrio HBW, 2007).

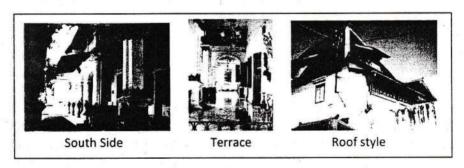


Figure 6.

Gedhong Purworetno European-style architecture
Source: Tri Yuniastuti and Satrio HBW, 2007

V. Bangsal Building at *Pagelaran* and *Sitihinggil Ler* Area of Yogyakarta Palace

A. Name and Function Buildings

Have been changes to the Palace building functions from time to time. Changes in these functions due to the policy of the Emperor,

among others, the policy of Sultan HB IX. After becoming a tourist attraction, some buildings have changed their function. Functions formerly bangsal (under study) as in the following table.

Table 1 Late Functions of Bangsal at Yogyakarta Palace

NO.	BUILDING NAME	LATE FUNCTION
1.	Bangsal Pengapit/	used by the commanders of the Sultan of
	Bangsal	the Sultanate received orders or waiting
	Pasewakan	to report to him later also used as a place
		to keep the Anom Jaba Regent
2.	Bangsal	used by the Sultan to inaugurate Pepatih
	Pengrawit	Dalem
3.	Bangsal Pacikeran	used by the Abdi Dalem Mertolulut and
		Singonegoro until around the year 1926.
4,	Bangsal Kori	Place of servants : Abdi Dalem Kori and
		Jaksa prosecutor whose function is to
	2	deliver the petition or complaint of the
	2	people to the Sultan.
5,	Bangsal	is where the Sultan sat on his throne at
	Manguntur	formal occasions such as royal Sultan
	Tangkil	inauguration and Pisowanan Agung. In
		this bangsal also on December 17, 1949 Ir.
		Sukarno was inaugurated as President of
		the Republic of Indonesia States.
6.	Bangsal Witono	used to put symbols of royal or royal
		heritage as the Kingdom official event and
	- 1	when the Sultan was enthroned in
		Bangsal Manguntur Tangkil

Source: http://id.wikipedia.org/wiki/Keraton Ngayogyakarta Hadiningrat, 2009

Since the Palace of Yogyakarta became to cultural attractions in Yogyakarta, the function of in particular is also changing. Functions are now bangsal buildings studied at Yoggyakarta Palace can be seen in the following table.

Table 2. Function of Ward Yogyakarta Palace

NO.	BUILDING NAME	FUNCTION NOW		
1.	Bangsal Pengapit / Bangsal Pasewakan	used for tourism purposes (a kind of diorama depicting traditional processions, the palace and the other soldiers).		
2.	Bangsal Pengrawit	Tourism Object		
3.	Bangsal Pacikeran	Tourism Object		
4,	Bangsal Kori	Place courtiers watching Tourists in Tratag Siti Hinggil		
5,	Bangsal Manguntur Tangkil	Place the Sultan coronation Tourism Object (Visual)		
6.	Bangsal Witono	Tourism Object (Visual)		

Source: http://id.wikipedia.org/wiki/Keraton Ngayogyakarta Hadiningrat, 2009 and observation 2009.

B. Location and Buildings Being

Location of the bangsal which is on Pagelaran area and Sitihinggil Ler Sultan's Palace and the shape of the building can be seen in the picture below.

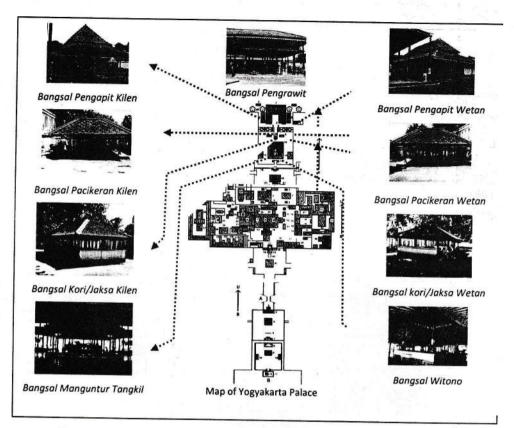


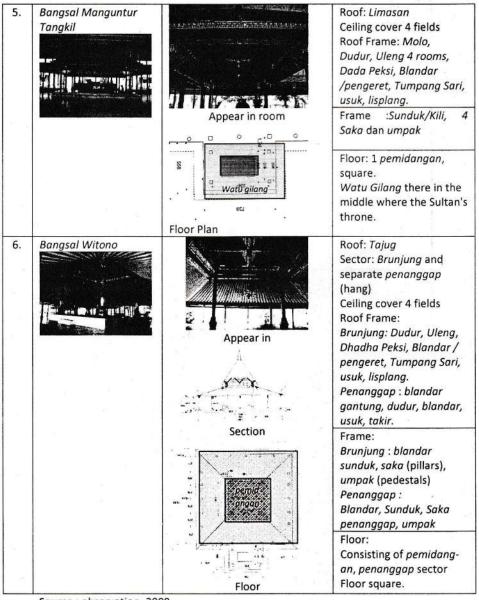
Figure 7. Location and Buildings Being In Yogyakarta Palace Complex Source: 2009 observations

C. Frame Building Forms

Framework of the bangsal buildings standing on the floor, above it there as a pedestal base (umpak) with pole / column / saka as vertical frame buildings. Beam fastened above the column named sunduk / kili, and on these there are beams blandar / pengeret, above there is a tumpang (overlap) beam as the pedestal roof truss. Roof truss consists of dudur, Molo, Ander, usuk. More pictures can be seen in the table below.

Table 3. Form and Components of Building

NO.	BUILDING NAME	BUILDING FORMS	BUILDING COMPONENS
1.	Bangsal Pengapit Kilen	BANGSA, PENCAPIT SARAT	Roof: Brunjung and Penanggap Roof Structure: Molo, Blandar, Usuk
		Pemidangan floor	Structure: Saka Guru,Saka Penanggap, Umpak Blandar/Pengeret, Sunduk/Kili
		Penanggap floor Floor Plan and Section	Floor : Pemidangan (Center) Penanggap
2.	Bangsal Pengrawit	₹ ∀ ↑	Roof: Limasan Structure: Molo, Ander, uleng, Blandar/Pengeret, tumpang sari, balok Listplank, usuk
	2	Pemidangan 23 Pemidangan	Structure : Balok Sunduk/Kili, Saka Umpak,
		Floor Plan and Section	2 lantai <i>pemidangan</i>
3.	Bangsal Pacikeran		Roof: Limasan Structure: Molo, Dudur, Ander, Blandar/ Pengeret, usuk, lisplang.
	Outside view	Appear in	Frame : Sunduk/Kili,4 Saka dan umpak
	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Floor : 1 pemidangan, quadrangle
4.	Bangsal Kori		Roof: Limasan Structure: Molo, Dudur, Ander, Blandar/ Pengeret, usuk, lisplang.
	100 mm		Frame : Sunduk/Kili,10 Saka dan umpak
	Outside view	Appear in	Floor : 3 pemidangan, quadrangle



Source: observation, 2009.

D. Building Ornaments

Not all buildings which have been studied ornament (decoration). The building also contained ornaments of different motives and location. The following building components ward Kraton studied contained ornament.

Table Figure 2 Ornaments on Bangsal Building

NO	BUILDING NAME	BUILDING COMPONENT ORNAMENTS								
		Umpak/ pedestal	Saka/Column/ Pillars	Blandar/ beam	ceilling	usuk	lisplank			
1.	Bangsal Pengapit Kilen There are only a few ornaments.	Ornament: padma (lotus flower relief)	Patterned ornament in the middle: Wajikan	No ornaments on blan Plafond is iron plate	ndar (beams)					
3.	Yellow and red ornaments	Ornament : padma (lotus flower relief)	(1) (2) (3) Ornaments on bottom (1) and above (3) columm patterned saton, anf the middle (2) patterned Praba.	Beams ornament Patran. Ceiling ornaments pa fingered (sta	tterned Circle	No ornament on <i>Usuk</i>	Listplank beams ornate floral shaped in the middle and saton on tip			
4	Bangsal Pacikeran		No ornaments on plair	wooden building frame	work compone	nts.				
5	Bangsal Kori	No ornaments on plain wooden building framework components.								

6	Bangsal Manguntur Tangkil Ornaments yellow and red packaging. The coloumn is black	Ornament : padma (lotus flower relief)	Lower and upper colom ornament shaped <i>Praba</i> and the middle shaped <i>mirong</i> and <i>sorot</i> .	Ceilling cover ornamentc: flora motif Beam ornaments: patran and sorot or trisula.	Florals ornaments at usuk:lung- lungan	Lisplank beam Ornaments patterned Patran
7	Ornaments yellow and red packaging. The column is black.	Ornament : padma (lotus flower relief)	Lower and upper pole ornament shaped Praba, the middle shaped mirong and sorot.	Dhadha peksi beam ornaments patterned Patran with sorot-shaped ends. Uleng Beam ornaments shaped Patran. Ceiling cover pictures Kraton symbol.	Usuk was not ornamented, ornament on lisplank beam patterned Patran	

Source : Observation, 2009

VI. Studies of Javanese Traditional Architecture on Bangsal Building at Pagelaran and Sitihinggil Ler Area of Yogyakarta Palace

A. Building Function

The creation of a structure of the studied wards (bangsal) because of the role previously function as a place to hold events tradition palace, although now its function has been turned into a cultural tourist attraction. Incidentally all the studied building works to the public instead of private (residential). What distinguishes the function of buildings to one another is an activity and the perpetrator. Of activities can be grouped into: common activities / every day (waiting in Bangsal Pengapit, manning in Bangsal Pacikeran and Kori), special ceremonies (governor's inauguration in Bangsal Pengrawit, and Sultan inauguration in Bangsal Manguntur Tangkil) and spiritual activities in Bangsal Witono. Based actors, can be grouped into: performed by courtiers (guard duty in Bangsal Pacikeran and Kori), officials under the Sultan (Head wait in bangsal Pengapit) and by the Sultan (inaugurated in Bangsal Pengrawit and inauguration of Sultan on Bangsal Manguntur Tangkil).

B. Building Forms

All building plans wards studied quadrilateral, are the hallmark of traditional buildings on the grounds of Java easier to work and the conception keblat papat limo pancer or mancapat.

The ward consists of building is the framework of buildings (columns and beams) and the roof, open without walls. This is related to the nature of the activities formerly reserved for public activities, except closely *Bangsal Pengapit* glass walls because of its function has changed to saved and displayed mannequins with traditional clothing and ceremonial palace.

C. Typology building

Building typology study bangsal at Pagelaran and Sitihinggil Ler area when viewed from the side of the type of roof is composed of two typologies:

- Limasan: bangsal Pengapit Kilen/Wetan (build type Limasan lambang teplok and lambang gantung), bangsal Pengrawit, Bangsal Pacikeran (Limasan Principal) and bangsal Kori.
- 2. Tajug: Bangsal Witono (Tajug lambang Gantung)

D. Ornament

Have a location, type of ornament used in the bangsals that the object of study consists of ornaments with constructional type (Bangsal Pengrawit, Manguntur Tangkil, and Witono), which integrates with components of the building. While the non structural is Bangsal Pengapit, attached to the pole.

The use of ornament is suspected as the aesthetic value and greatness of king symbol (a building for the king), it is evident in buildings with advance functions for the activities of the Sultan, the ornament is located almost in all parts building (bangsal Pengrawit, Manguntur Tangkil and Witono) with color red and golden yellow as a symbol of power and greatness. Instead of building works to the public or courtiers only, then only a few ornaments and even almost nonexistent (bangsal Pengapit, Pacikeran and Kori).

Ornaments found on the bangsal buildings in Yogyakarta Palace, which was observed generally patterned flora, and especially in the sacral buildings there mirong ornament on the pole (saka) and symbols of the greatness of the king who was ruling at the time of construction. In this case Most of symbol numbers 8 (star 8 in every plafond, Kingdom symbols and HB VIII writing on the cover of bangsal Witono ceiling). Because the development most done during the reign of Sri Sultan HB VIII (1921-1939).

VII. Conclusion

The presence of Sultan's Palace is very important. As a royal palace contains the history of one large kingdom in Java that is Ngayogyakarta Sultanate. As the building is the work of a very high cultural value, is the development Traditional architecture of Javanese is very high with the typology of building a magnificent and complex with a bandage wormwoods is typical range.

This study aims to identify the buildings in the Yogyakarta Palace, especially the so-called bangsal wich pristine. From this study it was concluded that :

Building ward in the Sultan's Palace, especially on Pagelaran and Sitihinggil Ler area has the same characteristic, which is open and is building Java tradirional, although varying depending on the shape tipology roof and its skeletal structure.

- 2. The difference in shape and typology is also influenced by the function / use of the past: the kinds of events and perpetrators.
- 3. As a building with the functions of royalty, grandeur is shown in addition to the size and complexity of building structures, also with ornaments, the sacred function of the building, the more complete and finishing with a magnificent ornament and displaying the emblems of power.

Bibliography

- Arya Ronald, 1997, Ciri-ciri Karya Budaya Di Balik Tabir Keagungan Rumah Jawa, Universitas Atmajaya Yogyakarta
- Brongtodiningrat K.P.H., 1978, Arti Kraton Yogyakarta, Museum Kraton Yogyakarta.
- Eko Punto Hendro G., 2001, *Kraton Yogyakarta dalam Balutan Hindu*, Bendera Semarang.
- Gustami, S.P., 1980, *Nukilan Seni Ornamen Indonesia*, Sekolah Tinggi Indonesia "ASRI" Yogyakarta, G 01.A.
- Hamzuri, Rumah Tradisional Jawa, Proyek Pengembangan Permuseuman DKI Jakarta.
- Josep Prijotomo, 1995, *Petungan: Sistem Ukuran Dalam Arsitektur Jawa*, Gadjah Mada University Press, Yogyakarta.
- Slamet D.S, 1981-1982, Arsitektur Tradisional Jawa Tengah, DekdipBud.
- Wibowo H.J., 1986/1987, Rumah Tradisional Daerah Istimewa Yogyakarta, Dedikbud, Proyek Inventarisasi dan dokumentasi Kebudayaan Daerah.
- Tri Yuniastuti dan Satrio H.B.Wibowo, , 2007, Pengaruh Arsitektur Klasik Eropa Pada Bangunan Kraton Kasultanan Yogyakarta, Penelitian.
- Tri Yuniastuti, Sukirman dan Satrio H.B.Wibowo, , 2009, Studi Dokumentasi Bangunan Tradisional Bangsal Kraton Yogyakarta, Penelitian.
 - http://id.wikipedia.org/wiki/Keraton Ngayogyakarta Hadin ingrat, 2009

LEMBAR

HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW

KARYA ILMIAH: PROSIDING

Judul Karya Ilmiah (Artikel)	: Study of Javanese Traditional Architecture : <i>Bangsal</i> Building At <i>Pagelaran</i> and <i>Sitihinggal Ler</i> Area of Yogyakarta Palace					
Nama Penulis	: Tri Yuniastuti; Sukirman; Satrio	Hasto Broto Wibowo				
Jumlah penulis Status pengusul	: 3 (tiga) Orang : Penulis ketiga					
Identitas Jurnal Ilmiah	: a. Nama Jurnal	: Proceedings: "Exploring Noble Values of Local Wisdom and Prime Javanese Culture to Strengthen The Nasion Identity"				
	b. Nomor P-ISSN	:				
	c. Nomor E-ISSN	:-				
	d. Nomor ISBN	: 978-979-498-617-2				
	e. Volume, Nomor, Bulan, Tahun	: -/-/Maret, 2011				
	f. Penerbit	: Universitas Sebelas Maret Surakarta				
	g. DOI Artikel (jika ada)	:-				
	h. Alamat Web Jurnal	:				
	Url Website : -					
	Url Dokumen : -					
Kategori Publikasi Prosiding	Internasional, terindeks S	Scimagojr, Scopus, IEEE Explore, SPIE				
(beri v pada kategori yang tepat)	v Prosiding Internasional					
	Prosiding Nasional					

Hasil Penilaian Peer Review:	

	Nilai Maksimal Prosiding				
Komponen Yang Dinilai	Internasional terindeks	Internasional	Nasional	Nilai Akhir Yang Diperoleh	
		V			
a. Kelengkapan unsur isi buku (10%)		1.5		1.5	
b. Ruang lingkup dan kedalaman pembahasan (30%)		4.5		4	
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)		4.5		4.5	
d. Kelengkapan unsur dan kualitas penerbit (30%)		4.5		3.5	
Total = (100%)		15		13.5	
Nilai Pengusul		3		2.7	

Komentar/Catatan Artikel oleh Reviewer 1:

- 1. Tentang kelengkapan dan kesesuaian unsur: sistematika artikel sudah lengkap dan sesuai dengan ketentuan, namun kesimpulan tidak terumuskan, karena bahasan masih 'mentah' lagi
- 2. Tentang ruang lingkup dan kedalaman pembahasan : pembahasan sudah cukup mendalam
- 3. Kecukupan dan kemutakhiran data/informasi dan metodologi : data cukup mutakhir dan metodologi penelitian sesuai tujuan penelitian
- 4. Kelengkapan unsur dan kualitas penerbit : kualitas pustaka masih kurang, terutama pustaka jurnal belum ada
- 5. Indikasi Plagiasi:
- 6. Kesesuaian Bidang Ilmu : sesuai

Surakarta, 23 Februari 2021

Reviewer 1

Yama : Dr. Nur Rahmawati Syamsiyah, ST.,MT.

NPP/NIDN -720/0612056801

JAFA : Lektor

Unit kerja : Universitas Muhammadiyah Surakarta

Program studi : Arsitektur

LEMBAR

HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW

KARYA ILMIAH: PROSIDING

Judul Karya Ilmiah (Artikel)	•	rchitecture: Bangsal Building At Pagelaran and Sitihinggil				
	Ler Area of Yogyakarta Palace					
Nama Penulis	: Tri Yuniastuti; Sukirman; Satrio	Hasto Broto Wibowo				
Jumlah penulis	: 3 (tiga) Orang					
Status pengusul	: Penulis ketiga					
Identitas Jurnal Ilmiah	: a. Nama Jurnal	: Proceedings: "Exploring Noble Values of Local				
		Wisdom and Prime Javanese Culture to Strengthen The Nasion Identity"				
	b. Nomor P-ISSN	:				
	c. Nomor E-ISSN	:-				
	d. Nomor ISBN	: 978-979-498-617-2				
	e. Volume, Nomor, Bulan, Tahun	: -/-/Maret, 2011				
	f. Penerbit	: Universitas Sebelas Maret Surakarta				
	g. DOI Artikel (jika ada)	: -				
	h. Alamat Web Jurnal	:				
	Url Website : -					
	Url Dokumen : -					
Kategori Publikasi Prosiding	Internasional, terindeks S	Scimagojr,Scopus, IEEE Explore, SPIE				
(beri v pada kategori yang tepat)	v Prosiding Internasional					
	Prosiding Nasional					

Hasil Penilaian Peer Review:

	Nilai Maksimal Prosiding					
Komponen Yang Dinilai	Internasional terindeks	Internasional	Nasional	Nilai Akhir Yang Diperoleh		
		v				
a. Kelengkapan unsur isi buku (10%)		1.5		1		
b. Ruang lingkup dan kedalaman pembahasan (30%)		4.5		4		
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)		4.5		4		
d. Kelengkapan unsur dan kualitas penerbit (30%)		4.5		3.5		
Total = (100%)		15		12.5 40% x 15 bagi 2		
Nilai Pengusul				2.5		

Komentar/Catatan Artikel oleh Reviewer 2:

1. Tentang kelengkapan dan kesesuaian unsur : sesuai

2. Tentang ruang lingkup dan kedalaman pembahasan : memadai

3. Kecukupan dan kemutakhiran data/informasi dan metodologi : memadai

4. Kelengkapan unsur dan kualitas penerbit : memadai

5. Indikasi Plagiasi : tidak ada indikasi plagiasi

6. Kesesuaian Bidang Ilmu : sesuai

Jakarta, Reviewer 2

Nama : Dr. Maria Immaculata Ririk Winandari

NIDN: 0305027101 JAFA: Lektor Kepala Unit kerja: Universitas Trisakti

Program studi : Arsitektur