

# THE PENDHOK STYLE OF SURAKARTA KRIS A CASE STUDY OF DHONI KUSTANTO AS PENDHOK ARTIST OF 90S MRANGGI GENERATIONS

Guntur\*

The Batik Department, The Indonesian Institute of Arts, Surakarta  
gunturisi@yahoo.co.id

## Abstract

Kris (keris) is a kind of Javanese dagger with its main parts: blade, hilt, sheath, and *pendhok*. The *pendhok* is a protective part of the sheath, usually made of various metals such as silver, bronze, copper, brass, and even gold. Kris of *tangguh nom* (young period) which later specified as *tangguh Surakarta* (Surakarta period) becomes a model in the making of *pendhok*. *Tangguh* (period) means an identification of kris based on the period of kingdoms with its *empu* (kris masters). The formation of *pendhok* in Surakarta style means connected with the form of Surakarta kris which conceptualized by PB III to differentiate with Kasunanan Kartasura. The *tangguh Surakarta* is accepted as a style of kris which has a form of distinction to the another kingdom: Yogyakarta. Seemingly the aesthetic of *pendhok* and Surakarta kris is remained the original post-Kartasura trace but with the authenticity of PB III. The form of Surakarta kris is recognizable by the shape of sheath (*warangka*), especially *ladrang* and *gayaman*, with the hilt of *tunggak semi* (spring stump). The *pendhok* form follows the sheath style, and its ornaments mostly signify an adopted art of pre-Islam: Hindu – Budha. As Majapahit diminishes and Islam arose, the kris then shaped in the palace traditions in the hegemony of *Islam Kejawen* and the king is in the center. Kris culture arranged as a form of synthesis between Old Java of Majapahit with the New Java of Islam *Pesisiran* (seashore) in the era of Islamic Mataram by Sultan Agung. During the colonialism, the conflict over Mataram authority had changed Java, also made Surakarta and its kris form produced in different identities through the kris culture and customary fashion in the Palace and then rooted in the Surakarta folk by the *mranggi* in the outside of Palace.

**Keywords:** pendhok, Mranggi, Ornament, Kris, Folkart, Identity, Surakarta, Java

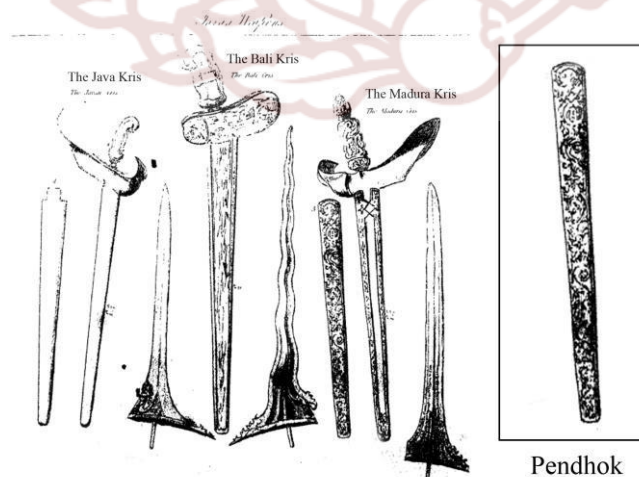
## 1. Introduction

Indonesian kris becomes the world's intangible cultural heritage by UNESCO in the 2000s. This achievement based on the historical roots of kris culture, one of them is in Java. The kris has long been part of Javanese culture, it is shown in world explorers text of Ma Huan. He visited Java (Majapahit, Hindu's Kingdom, East Java) in 1433. He said that all men in Majapahit, from the king to commoners, from little boys of three years to old men, slipped a *pu-la-t'ou* (dagger) in their belts, they all have these knives which are all made of steel with most intricate patterns drawn in very delicate lines, for the handles they use gold or rhino's horn or elephants' teeth, carved with a depiction of human or demon, the carving works are skilfully made (Sheng-Lan 1970:88, Babu 2015:69-70). The similar narration found in Tomé Pires text, *Suma Oriental* which was written between 1512-1515 which said that every man in Java, whether rich or poor, must have a kris in his house and no man between the ages of twelve and eighty may go out of doors without a kris in his belt (Pires 1944:179). Pires recognized the Javanese who had embraced Islam but also recognized non-Javanese Muslim

who had embraced characteristic patterns of Javanese-ness (Ricklefs 2006:20). They have used gilded kris (Ricklefs 2013:31). The kris is part of an everyday life of men's custom in Java, at least in the Boomgaard text, all Javanese men wore a kris up until World War II (Boomgaard 2013:116).

During the interest of an 'ethnologist' which described Java, the Surakartakris was shown in *The History of Java*, this subject then 'continued' by Isaac Groneman in *The Javanese Kris*. Raffles narrated the men in Javanese dress as follows "his kris should have the sheath of the *sátrian* (knight) fashion, and the handle should be that of *túng'gáksmi* (*tunggak semi* spring stump)" (Raffles 1817:95). What is Raffles signifying was the kris culture in the Palace. While Groneman wrote about the forging of blades and other parts of the kris for example *pendhok*. The custom of knight in Surakarta palace has been 'fixed' its fashion rule with the kris, especially the kris handle of *tunggak semi*. This style is conceptualized by PB III (Pakubowono III) when he came to power in 1749 – 1788 with the aim to differentiate with Kasunanan Kartasura (1680-1745) which happens in the conflict of powers over the authority of Mataram.

Around the 1800s the important manufacture of cutlery is the kris, a *pándi* employed to manufacture a good kris blade, the manufacture of sheaths or scabbards (*sarong*) for the kris constitute an exclusive profession, and the manufacturers are called *tukang meránggi*, or *mergongso* (Raffles 1817:173). In Raffles's description, the kris and some other specialist in craftsmanship are written in terms of industry. Those specialist are *túkang-tambógo* (coppersmith), *túkang-mas* (goldsmith), and a jeweler. Those professions are connected to the craftsmanship of *pendhok*, and to be sure the *tukang mranggi* has to connect with those specialists of precious metal and stones to decorate the sheath. The assembly specialists being said by Timbul Haryono (historian) then affirmed by Basuki Teguh Yuwono (kris master and scholar) called *penggaluh* (a jeweler) (Wijayatno & Sudrajat 2011:162). But, the term of *penggaluh* seem to have the difficulties to its references in the modern literature, whereas until now, the *mranggi* mostly was still known as the sheath maker and also the *pendhok*. The kris has been a product of traditional industry, the diversification of related profession spread in a market, and the form is manufactured to be identical to the origin of the kingdoms.



**Figure 1.** The type of kris, and the *pendhok*  
(Picture supplement in *The History of Java* after page 296)

The *pendhok* is the protective part of *warangka* (sheath). The simplest *pendhok* usually made of brass or copper, but fancy ones made of silver or gold with a set of diamonds (Purwadi 2005: 381). In *The History of Java* a *pendhok* was drawn with its ornament (**Figure 1**), but

its image is related to the Madura kris (Raffles 1817:296-...). The years when Raffles doing his research there weresome type of *pendhok*that already cultivated, and in certain condition was prohibited by PB IV (Pakubuwana IV) in Surakarta i.e. *pendhok parijata* (swollen rice), *pendhok tatahan sawat*, and *kemalon abang*. The kris which using the handle of *tunggak semi* (spring stump) were may be used by the knights (Margana 2005: 289, 292). The sheath of kris that was known at that time till today is *gayaman* and *ladrang*. *Warangkaladrang* commonly used at official ceremonies to complement the customary clothing, is a tribute, both ends curved like an ancient boat. While the *gayaman* as a complement to dress in unofficial events, simple form, widely used during the war for ease of use of kris, and the function of the *warangka* is as a shield, deflector, and to shovel(Wibawa 2008:42).



**Figure 2.** *Ladrang* sheath & *Gayaman* sheath  
(<http://kesolo.com>)

*The History of Java* is the attempt of Raffles to display the island of Java and its structure for the sake of knowledge in colonialism, and while Groneman's was doing an involved research to built and shows the Javanese kris culture and its part. Both are in different intentions in writing the Java, but their works becomes the founding text of seeing the "Java" in objects culture. The Raffles texts gave the stepping stone in discussing the *pendhok* that hadn't be explained but giving a guide in which *mranggi's* social categorical and descriptive information. While Groneman's was opposite, he described the category of *pendhok* but lack in the description of *mranggi's* social culture. These texts are different to the text in the stories of *Babads* (history-chronicle) which written and mixed with legends, myth, in the will of the local rulers.

During the formation of by Surakarta kris PB III, it was a situation to 'found' the new form which admired but it was conditioning 'the loss' of the previous form as consequence of the neglection because the will to invent a new form of identity. And the PB IV prohibition which was regulated the uses of a certain *pendhok* in particular social level in Palace, it was conditioning the loss of productive knowledge in the making of certain *pendhok* to the next generations in the public. The time from PB II to PB IV becomes a circumstances to see the position of *mranggi* in Surakarta. It is all proved that *pendhok* has qualified enough as subject matter in kris studies. But, the *pendhok* is mostly absent in kris studies. So, this paper is an attempt of writing the *pendhok* in two matters: 1) How does the cultural formation of *pendhok* which is associated with the Surakarta style? 2) How does the style of Surakarta *pendhok* which is created by the traditional artist in the lineage of *mranggi*?

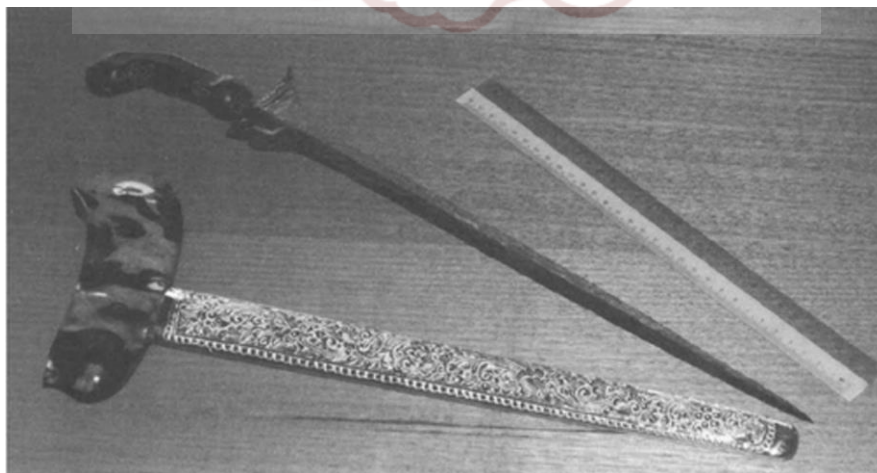


## 2. Literature Review

### The javanism of Surakarta in kris culture

In the context of kris culture, the Surakarta kingdom is rooted in Islamic Mataram with its patronage power of being Javanese to its folks. Majapahit glory inspired Sultan Agung (1613-1646) to prove Majapahit traditions is not the enemy, but the root of Mataram's existence. Muslim rulers are closer to the tradition of Javanese Majapahit than to Islamic traditions in the Arabian Peninsula or even the coast of Sumatra (Vlekke 2008: xvii-xviii). The Hindu and Buddhist ideas have formed the Javanese, the process called "Javanization" which refers to the various Indian cultures that entered Java, then developed in its own literary (Kawi) and religious culture, the Majapahit kingdom considered as strong synthesis of Hindu-Javanese culture (Banerji 1989:589; Wiryomartono 2016:32; Ricklefs 2013:29). This old civilization or in language domain is termed as 'Old Javanese' are refers to the pre-Muslim era of Javanese history (Uhlenbeck 1964:108). The traditions which influenced by 'old javanese' it has a large number of Sanskrit loan words and it has a large number of Sanskrit loan words (Zoetmulder 1974:8; Auroux 2000:187)

The appropriate word to describe the practices of Javanization is syncretism. As Majapahit diminishes, and the strengthening of Islam emerges through the Demak kingdom resulting in a synthesis between Hindu-Javanese culture and Islamic culture (Sachari 2007:33). M.C. Ricklefs said the synthesis in which Sultan Agung done is the "mystic synthesis" that united the Javanese and Muslim (Ricklefs 2013:32). It is considered to do with ethics and aesthetics. The patronage of of syncretism never broken up either in pre-colonial or in the colonial Java, mainly in Era PB III – PB IV. Surakarta and its literary culture have retained a special significance as the locus classicus of an ancient literature which has resisted Islamization...and being said by Gericke as "the mecca of the Javanese language" (Hooker 1988:134). The syncretism continues when Islam came to power in Surakarta palace. Some traditions i.e. *slametan raja wedda* and *maesa lawung*, according to the customary law of Majapahit were passed down from Demak (the first Islamic kingdom in Java) into Mataram-Kartasura in era of PB II, 1748 (Headly 2004:292-294; Headly 1979:49-57). The Hindu and Buddhist religion is not accepted as the official religious culture of the kingdom, but its traditions and customs, especially kris, continues as part of tradition of the previous palace, the simplest words: Surakarta is inherit the form of Mataram-Kartasura.



**Figure 3.** The *Kiai Wali*, 15th or 16th century made by Sunan Giri, the handle of Surakarta from 19<sup>th</sup> century (Ricklefs, *Islamize Java*, 2013:31)

The *empu/mpu*, and *mranggiis* a traditional artists in the form of patronage. The artists have been part of the state bureaucrafts, in palace, the relationship between the artists and the clients, especially the kings is about the patronage of power (Wiryomartono 2016:9). The patronage of power has to do with ethics and aesthetic in how to become a Javanese Muslim which had begun by Sultan Agung, then inherited by his descendant. Yasadipura II, the poet who worked during the reign of Pakubuwana IV repeatedly advises that Java's *adat* (Hindu-Javanese tradition) should be maintained, and *priyayi* should not invent their own *adat* (Riddell & Street 1997:270). *Kejawen* identified as syncretic, an other form of Javanese-Islam which differentiated with *santri* traditions (Mulder 2005:21; Janowski & Kerlogue 2007:24-33; Cederroth 1991:18; Hooker 1988:63).

Especially in PB IV era, the 'Javanese-ness' then had not identified as Hindu-Javanese ideas but commonly termed as *kejawèn* or Javanism which informs ethics, custom and style, used to identify the Javanese who qualify as *santri* (Islamic pupil in *pesantren*) but discussing life in the perspective of *wayang* (shadow play/puppet) (Mulder 2005:16). Since Islamic influence was in effect in Javanese societies, the literacy role and function of the ancient priest (*mpu*, *empu*, *pandita*) which known in Hindu-Budhist Javanese literacy had been transformed and entrusted to the puppet master (*dhalang*) (Wiryomartono 2016:6). At the time of Dutch colonialism entered the life of Java, the Surakarta arts, and religious culture is ruled by the Mataram *priyayi* (ruling class). Facing the colonialism, PB IV is more attached to the potential of Islam as a social movement. The literary research on *Serat Wulang Reh* from PB IV's work shown the Surakarta literature was derived into two kinds of Islam: *Islam santri* and *Islam kejawen*. If *Islam santri* literature develops in *pesantren*, *surau*, contains Islamic *syariat*, whereas *Islam kejawen* more uses Javanese language than Arabic letter, for example that is *primbon*, its contents are developed in Javanese tradition (Ardani 1999). PB IV is known was influenced by *ulama*, and made changes of fashion rule: changing the clothes of Dutch-style warriors with Javanese clothes, and *abdi dalem* (court retainer) who faced the king were required to dress *santri* (Katno 2015). *Serat Wulang Reh* is not much use of *arkhaik* (ancient) Javanese. While PB IV was regulated the uses of a certain *pendhok* in particular social level in Palace, at the same time he wanted to remind and introduce Islam through culture.

In particular description, the Surakarta in *Javanese Literature in Surakarta Manuscripts: Introduction and manuscripts* was founded by Pakubuwana II in 1745, nearly 250 years from its establishment, Surakarta for many Javanese is represent the authenticity of Javanese (high) culture. Privileged in this representation is the imagined cultural preserves of Surakarta's two courts: the *Kraton* Surakarta and the Mangkunegaran (Florida 1993:11). During the colonialization, the Westernization occurring in many sectors, and *kris* is a resistance in *kraton* fashion customary (Lombard 1990:107-112). Between the two "Java"s exemplified by the *Kraton* and Mangkunegaran that produced truly durable fabrications of "Javanese" style, just as the Mangkunegaran Palace had its own pleasure retreats and ritual kinks, the *Kraton* Surakarta remained the original post-Kartasura trace of cultural authenticity (Pemberton 1994: 112).

### **The aesthetic of *pendhok***

Denys Lombard in his books *Nusa Jawa: Silang Budaya* (Nusa Java: Cross Cultural) said that as with all the colonies, at various times in the history of the modern, *Nusantara* has flooded by Western techniques. The ethnologist explained at length the various traditional techniques of metal processing throughout the ages pre-colonial, the right to work the iron is inherent to a group of artisans privilege holders that are considered to have supernatural powers: *pande besi* (ironsmith). Anywhere in the archipelago ironsmith bit much viewed as masters who

have magical powers, but it is conceivable that in Java, and magical ritual context is more pronounced because of the scarcity of the metal (Lombard 1990:131-132).

The formation of *pendhok* mainly associated with Surakarta style, it has connected with the form of Surakarta kris which conceptualized by PB III to differentiate with Kasunanan Kartasura. As Pemberton said, seemingly the aesthetic of *pendhok* and Surakarta kris is remained the original post-Kartasura trace but with the authenticity of PB III since he want to differentiate with Kasunanan Kartasura. In the manufacturing process, a *pendhokis* made following the sheath in which follows the form of the kris. Kris style is compacted in a *tangguh* (period), ahistorical time of kris which centered on the *pamor* and the myths of its metallurgy. An aesthetic of *pamor* lies on the blade that is created through the process of forging, the 'chunk' of metal are folded many times so that it becomes flat, solid, hard, and strong. The blade becomes a kris if it unify with others parts, i.e sheath. The sheath usually uses wood and need to be protected with metal, called the *pendhok*. A kris may have up to three scabbards used for the same blade for different occasions of formal dress (Ellis 2009:471). *Pamor* is not a form of an ornament, but it is considered to have its own power (Brown & Hutton 2011:112). In other words, *pendhok* is signifying the power of ornament, its beautify, or harmonicity in visual form.

*pendhok* could be categorized by materials, techniques, types and forms, as well as functions. Judging from the materials which are used, *pendhokis* created using several type of metals, such as brass, silver, and even gold, also another metal, i.e swâså. The mixture metals is resembled a gold (Groneman, 1910). Based on form, there are some *pendhok*, i.e. *pendhok cantaloupe*, *slorok*, *bunton*, *topengan*, and *kemalon* (Groneman 1910, Haryoguritno 2005). Based on the manufacturing technique, *pendhokis* categorized into *pendhok krawangan*, *pendhok tretes*, *pendhok cukitan*, and *pendhok tinatah*. According to Harsrinuksmo And Lumintu *pendhok* kris have to do with ethics. There are *pendhoks* which prohibited to the 'ordinary people and is otherwise only be worn by nobility, i.e. *pendhok kemalon* with white background must not be used by folks. *pendhok Tretes* with the specific sheath only worn by the king (Harsrinuksmo And Lumintu, 1988).

Although the discussion of ornaments *pendhok* very limited, but some of that may be mentioned include (Raffles 1817), Groneman (1910), Harsrinuksmo and Lumintu (1988), Harsrinuksmo (2004), Haryoguritno (2005), and Yunus (2012). According to Groneman, ornaments in *pendhok* just as motifs in batik. Some motifs include *sembagen huk*, *kuma drawan*, *semen ageng*, *semen manyura*, *semen jlengut*, *parangan*, *cemara sewu*, *ombak banyu*, *unthuk-unthuk*, *gringsing*, *jlengut*, *saton*, and *lunglungan*. There are *pendhok* with a special motif *semen jlengut* used only by kings (Groneman 1910) or the *sunggingan* sheath with motif of *alas-alasan* in white background only be worn by the king (Harsrinuksmo and Lumintu 1988). While the royalty at level of regents, *tumenggung*, and *riya* can wear *pendhok* with *unthuk-unthuk* motif (Groneman, 1910).

*pendhok* usually uses carvings with patterned pieces of plant or animal. Plant carved usually in the form of flowers, and animals consist of a bird or a deer (Haryoguritno 2005). There is a decorative pattern *pendhok* Surakarta style, among other *lung-lungan setaman*, *lung kroton*, *lung patra sewu*, *lung anggur*, *lung kroton*, *lung anggrek*, *lung kanthet*, *lung pakis*, *lung buda*, *lung srimulya*, *modang*, *bonang sarenteng menyan kobar*, *gringsing*, *sembagen*, *parang*, *nganam kepeng*, *tirta teja*, *kemalo abang*, *alas kobong* (Haryoguritno, 2005). Surakarta *pendhok* ornament includes *alas-alasan*, *garuda*, *semen*, *lung(-lungan)*, *pari sawuli*, *wilaya sarimbit*, *modang*, *menyan kobar*, *gringsing*, *anam gedeg*, *parang*, and others (Harsrinuksmo 2004). Kinds of ornaments in the form of motifs that are often found in *pendhok bunton* include: *lung kembang setaman*, *lung sari kretarta*, *lung widasari*, and *lung*



*kraton*. For *pendhok* cantaloupe, motives are often depicted include: *lung kanthet*, *lung anggur*, *lung kertas*, *lung combrang*, *lung wajik*, *lung budha*, *lung kenanga ginubah*, *lung modang*, and *lung plisiran* (Yunus 2012). Ornamental motifs such as flora, plants or in the Java language is often called the *lung-lungan* is a common motive which applied in *pendhok*.

Isaac Groneman in *Javaner Der Der Kris* (1910) defines *pendhok* as a sleeve that serves as a protective glove, especially a very valuable glove. Haryono Haryoguritno in *Java Keris between Mysticism and Reason* (2005) defines *pendhok* as a complement or a metal covering of kris sheath: *kandelan* (thickness). In the Encyclopedia of Javanese culture, *pendhok* serves as a protective or coating axle, which is part of kris sheaths made of wood. However, its protective function then turns into a luxury. The simplest *pendhok* is usually made of brass or copper, but that luxury is made of silver or gold set with diamonds (Purwadi 2005: 381). The use of the material aspects, quality results, and the manufacturing process determine the economic exchange of *pendhok*.

### 3. Methodology

Considering the things above, then a case study on the masters of *pendhok* becomes important to represent an artistic process of traditional art of kris in the current time. Among the limited number of masters, there is Dhoni Kustanto who in the lineage of *tukang mranggi*. He is consistent, devoted itself solely to the world of the kris in Surakarta. Although relatively young, Kustanto has proved himself: productive, creative, and innovative, with high-quality handwork. He is not only capable of producing classic *pendhok* as a legacy of the previous generation, but also creates a new motif. His various creations are filled private collections in the collector space inside and outside the country. The commitment in the world of the kris is also realized by dividing the result of the design to other *pendhok* practitioners. Research on Dhoni Kustanto is to get a general overview of the process of making *pendhok*, style of Surakarta, the types and forms.

The research took Surakarta as the location because its status as the cultural center of Java where the existence of the kris practitioners becomes one of the pillars of the traditional culture. Surakarta is also an area where a handful masters of *pendhok* dedicates them self in the preservation and continuity of the kris world. As we can see in **figure 1**, Surakarta is a central part of the Javanese culture legacy where the traditional arts have been created, preserved and developed. The logic used here is the kris culture permeated from the center to the periphery, and not calculate the Surakarta style which rooted in the periphery.

This study uses a qualitative exploratory approach to a single case study investigation on one slice of an 80s generation master of *pendhok*. The study focused on the production process which done in house as well as a workshop place to get the equipment and materials; making process; the visual documentation in the form of photos, image selection / design to get work performance. Data also collected through the study of literature and documentation. The data here includes two things: written and visual material. Written material is information, ideas, and opinions that have been published either in journals and books, online publications, as well as material written in paper form. Visual data, including visual images and photos, both of which exist in various publications as well as pictures were taken by investigators. Furthermore, the data were analyzed with the written and visual exploration approach.

The study of literature was directed to find the concept of *pendhok* which demanded of kris history by taking the concept of the kris period as a means of identification. Periodization of kris is used to help determine the style of Surakarta, commonly known as a *tangguh surakarta* (Surakarta period) which specified from *tangguh-nom* (young period) as reference for determining the size and type of *pendhok*. The study was determined to find the

formation of *pendhok* of Surakarta style in various context, the analysis then directed to the visual culture of ornament, and placed the ornament as seepage of the cultural history of Surakarta.

#### 4. Discussion

##### The *Mranggi* in Post-Kartasura imagery

The *pendhok* maker is widely known by the folks as the *mranggi*. The *Kawi's* term which related to *pendhok* production are: *pándi* or *empu* (iron-smith and cutler), *meráng'gi* or *túkang-weróngko* (kris-sheath maker), *túkang-tambôgo* (coppersmith), *kemasán* or *pande mas* (goldsmith) (Raffles 1817:164; Sheng-Lan1970:88; Haryono 1991-1992:62-63; Subroto & Pinaridi 1993:210). The scope of *pendhok* profession spread in all most districts in Java. The style of Surakarta sheath has been spread into the western part of Central Java such as Tegal, Sumenep, Banyumas, Cilacap, Purbalingga, Banjarnegara, Wonosobo and Kebumen as relics of the Sultanate of Mataram (Surakarta and Yogyakarta), and also identified by the existence of *mranggi* profession. It was happened in the era of Islamic Mataram, especially after Giyanti Agreement in 1755 divided the Islamic Mataram kingdom into two parts: the Sultanate of Yogyakarta and Kasunanan of Surakarta.

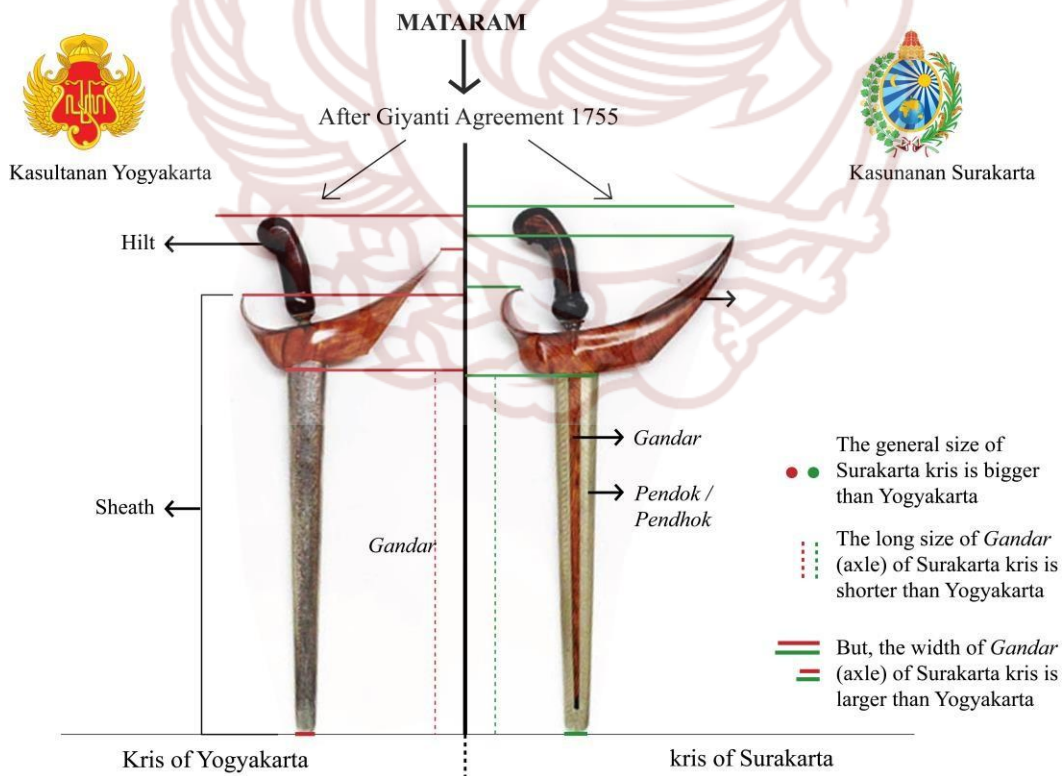
The *mranggi* has been known as the sheath maker of kris, this proffesion is exist in era of Brawijaya, Majapahit (Sastronaryatmo 1986:105). After Majapahit receded, Demak and successor of *pasisir* (seashore) polities adopted many of the courtly traditions of Majapahit, with master craftsmen brought over from East Java to work on court buildings and mosques. Although Islamic law was used extensively, it appears to have existed alongside older Hindu-Javanese *adat*. The Hindu-Javanese traditions becomes a customary law which needs to be renegotiated. In cultural matters, the kris were taken over and developed by *pasisir* rulers and the locally revered 'apostles of Islam (wali sanga) (Lieberman ed. 1999:270). The presence of Mataram after the fall of the Sultanate of Demak (1546), precisely in the era of Sultan Agung (1613-46) created a synthesis between the old Javanese Majapahit and the new Java Muslim coastal cities. Artisans, The metalworkers known as the *Kalang* work for Sultan Agung (Lieberman ed.1999:273). In the Later Mataram, there is a village naming system based on the people's profession. In Kotagede when the royal court was established, *Mranggen* village got its name from *mranggi* or sheath making (Nakamura 2012:40). The skills is inherited from their ancestors, the *kalang* or "Wong kalang". The Kalang People were originally war captives brought back by Sultan Agung. Conflicts and civil war over Mataram authorities cause the location of the palace moves along the lineage conflict up to Kartasura, and then Surakarta.

The kris in the reign of the kingdom of Mataram given meaning and purpose to support the concept of the supremacy of the king and kingdom of Mataram (Ricklefs 2002:16-17). Even though in the conflict to differentiate and taking over of Kartasura, the form of Surakarta kris being said as the successor form of the Kartasura kris. At that time, the King has the privilege or must have the kris master and determine the *tangguh*: a form or style of kris within the period of the King. The comparison between them is contrast. Kris of Kartasura has a large body shape, the *pamor* (the nickellace pattern) is bold, coarse textured iron, heavy, and has a slightly stiff proportion. Kris of Surakarta is smoother, using fine iron material, an excessive pattern of *pamor* fill the blades (Suryono, 2012). The *tangguh* is used by everyone as a conceptual tool to identify the origin of kris. Harsrinuksmo, a kris observer in the *Encyclopedia National Cultural* gave the range of the period of Surakarta is from 1726 – 1945. He put PB II era, the king of Kartasura as the beginning of Surakarta kris, which has 'reformed' by his son, PB III.



Suryono said that the king's privileges as the successor of the kings of Java is to have a kris masters and *tangguh* (the style), which has only the King of Surakarta Kasunanan, while Mangkunegaran does not have a *tangguh* privilege because only at the level of *Adipati* (Duke) *Anom* (Suryono 2012). What Suryono said corroborates Pemberton's opinion that the Kraton Surakarta remains the genuine trace of Kartasura's cultural authenticity, thus identified as post-Kartasura. Although the form is rooted in the Kasunanan Kartasura (1680-1745), but the distinction which affirming the style of Surakarta is believed to have begun in the leadership of Sunan Pakubuwono III (1749-88). The legitimation of kingdom identity through kris form from the Kartasura to Surakarta has shown that the hegemony of palace as ruling class then accepted by the *empu*, *pandi*, *mranggi*, and folks.

The Giyanti's Agreement 1755 in PB III formally had dividing the Islamic Mataram kingdom into two parts: the Sultanate of Yogyakarta and Kasunanan of Surakarta. It was the time when a kris and its equipment i.e. *pendhok* were regulated to identify the difference between Surakarta and Yogyakarta. The style of Surakarta kris is recognized from the shape of the sheath and hilt, especially *ladrang* and *gayaman*, with hilt of *nunggak semi* (Yuwono 2012), this handles marked with a small carving called *Cecekan* or *Patra*. The sheath of *ladrang* is worn to attend a ceremony, party, while the *gayaman* worn while performing a task. If the Surakarta kris has smaller body shape compare to Kartasura, but since the *Palihan Nagari* (Agreement of Giyanti 1755) Surakarta kris has known bigger than kris Yogyakarta. The form of Surakarta kris has known by *mranggi* in Surakarta is form in which can distinct with the Yogyakarta, and then becomes a model for the *pendhok*.

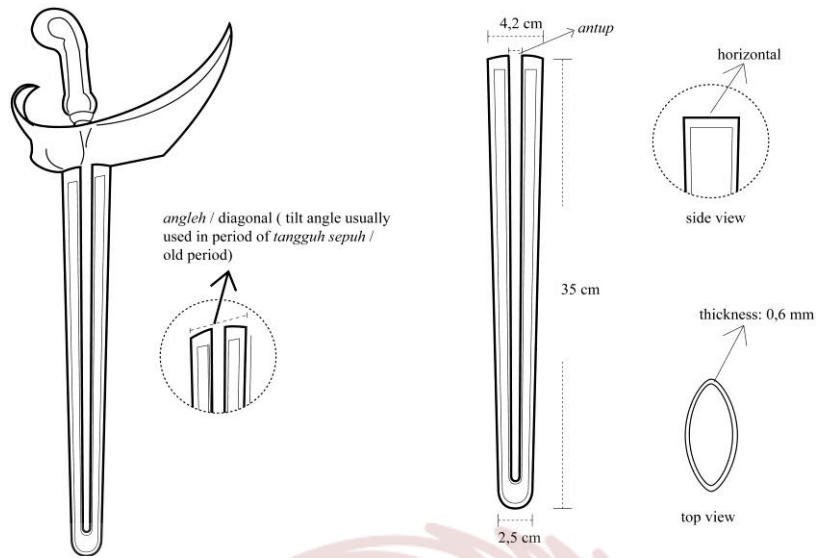


**Figure 4.** Kris size comparison after Giyanti Agreement 1755

### **The ornament style of *pendhok* by Dhoni Kustanto's work**

During the Islamic period in Java, a traditional art shown the adoption of the pre-Islamic form, sometimes after further process and extreme stilization as seen in the art making of *wayang* and other ornamental motif applied in the Kraton and mosque. The advent of Islam does not really eradicate figural representation but there is an attempted to press it into abstracts (Wahby 2007). Cultural ornament from Hindu-Buddhism of Majapahit period temples displaying animal and bird figures, such as geese, peacocks, elephants, and horses. Leaves are widely used, and in many cases, the style tends to turn into curls. Flower is executed in naturalistic form with stems and leaves (Wahby 2007). Seeing the way of stylization, Hinduistic flora seems to be a common form of ornaments. Some motifs that are identical with Hindu and Buddhist are lotus, and chakra (Kossak and Watts 2001:25) doesn't exist in Old Javanization, thus logically 'absent' in the tradition of ornament in Islamic Mataram till ornament of Surakarta *pendhok*. The figural motif of a mythological animal from Hinduism such as *ganesha* and *garuda* often appears in the ornament. Those animals are symbol and vehicle in Hinduism imagery (Miyazaki 1988:148). Apparently, the art of ornamentation in *pendhok* still takes the flora and fauna of Hinduism, but the image of God or the divine figure in the spirit of Hinduism were 'removed' or the values has reformed in the figural of *wayang* based on Hindu epics, and a mythical symbol. Others animal figures also found such as *kidang* (deer), *macan* (tiger), etc. This mode of ornamentation has become a tradition in *mranggi* visual literacy.

According to Herbert Read, there are at least three considerations in making ornaments: 1) Size, which is related to the relation of scale-related appearance on the object. 2) The form, that fills the space, about the possibility to repeat it in a linear rhythm, continuing it, multiplying it-up to infinity 3) Association, that is related to the application of ornaments to objects as media (Read 1936:121). Dhoni Kustanto associated the form of *pendhok* is to be applied to the kris of *tangguh nom* (young period). Dhoni Kustanto was born in Surakarta in a family with a tradition of *mranggi*. He is the third generation (grandchildren) in *mranggi* families outside the palace. His childhood after school grounds, before playing, he was helping the parents to do *mranggi* heritage, smoothing the sheath, *njamasi* kris, smoothing *pendhok*, generally the lightly work. The *mranggi* habit continued until high school age. Stepping third grade high school, his interest in *pendhok* started toward professionals, to reproduce images from the old *pendhok*. Kris of *tangguh nom* is produced in the period of Mataram Islam (Yogyakarta and Surakarta). *Tangguh nom* point period is the period of PB Surakarta and HB Yogyakarta as the last kingdom in Java until the independence of Indonesia. The characteristics and forms of *pendhok* in Surakarta style is tall, slender, does not have *angleh*, the diagonalic angle of the tip *pendhok* (mouth *pendhok*). The *pendhok* tip seen from the top looks like an ellipse with a vertical position.



**Figure 5.** The anatomy of *pendhok blewah* Surakarta style depiction to Dhoni Kustanto

Characteristic of an ornament is done by way of inclusion on certain part of traditional ornamental elements such as leaf, flower or fruit, and *ukel* (spiral) which then developed into the form of relief and stylization. Thus, the ornamental impresses traces of tradition elements identified as a combinational concept. Traces of the traditional form of decorative can be found clearly on the themes of tradition derived from: *wayang*; animal mythology: dragon king's motif, *ganesha*, *peksi dewata*, dragon, phoenix, twin dragons; animals and its nature: *alas-alasan* motive; Plants (*lung-lungan* motifs): *lung combrang* motif, *lung budha* motif. Traces of the traditional decorative approach can be found in the example design below:



**Figure 6.** Redesign the pictures of ornamental traditions

In general, the theme of the motif worked by Dhoni Kustanto does not have specificity. Its motifs come from: *alas* (forest), plants, animals, animal mythology, puppetry, geometry, decorating fields, and the beauty of artificial objects.

(a). *An ornamental motif based on alas (forest)*

The ornament based on *alas* generally presents a number of animals with nature as their habitat. The peculiarities of the motive of the *alas* are laying of animals arranged displayed



on the ecosystem from the bottom to up, namely: water, land, and air. The principal depicted on forest life in which there are various examples of natural animals: fish, crocodiles, tiger, deer, elephant, rhinoceros, bulls, dragon, birds, winged dog, *jatayu*, and winged lion. The birds of *Jatayu* or *garuda* is a mythological animals that can be found in the source of the puppet story. If we look at the *alas-alasan* in Javanese political economy, the forest becomes the embryo of the Javanese court, that is why the base becomes an aesthetic inspiration and the expression can be found in various artifacts with various media variations. Forest has become an important reality in the life of Javanese society. Forest not only provides the physical potential of natural resources, but also the spiritual power of life. Forest as a whole becomes an important part of the religious, spiritual and ritual beliefs of the community (Guntur 2015:38)



Figure 7. *Alas-alasan* in pendhok Bunton

(b). *An ornamental motif based on plants*

The plant motif is manifested in the form of tendrils or *lung-lungan*. Various motives sourced from plants are: *lung kembang sirsat*, *lung pakis*, *lung budha*, *ceplok kenanga*, *kembang kenongo*, *lung ceplok permata*, *simbar*, *tapak doro*, *truntum*, *kembang kertas*, *lung anggur*, *lung anggur*, *kembang melati*, *lung melati*, *ceplok melati*, *lung ceplok mawar*, *angrek bulan*, *angrek*, *lung angrek*, *lung mawar*, *bunga matahari*, dan *kembang sirsat*. In the nomenclature of the Javanese language, there is a division of names: *kembang* (flowers), *lung* (vines), *wit* (trees), and *suket* (grass plants). In ornamental forms, the three plant classifications: grass, flower, and trees are then deformed and "categorized" into *lung* or *lung-lungan*. The *pakis* (fern) grows in Pasisir utara (northern sheashore) such as Kudus and Pati.



**Figure 8.** Left: *pendhok blewah* (plants motif combined with a jewels)  
Right: *Pendok Bunton* with a motif of *Lung Pakis*

*(c). An ornamental motif based on animal and mythological animal*

This motif takes the natural animal and mythological animal as the main source of ornament. The common distinction between animal motif and *alas* (forest) motif is the presence of animal variations. On the *alas-alasan* motif there are various animals composed of their ecosystem layers. On the *alas-alasan* motif, there are various animals which composed in the hierarchy of ecosystem layers. The natural animal motifs are found in several motifs: bird, peacock, the bird and *lung*, butterflies, fish and birds. The mythological animals motifs are: *naga temanten* (the bride of dragon), *peksi dewata*, *ganesha* dragon, dragon and phoenix, dragon, dragon king, hong bird, crown and dragon, twin dragons. Peksi Dewata themed motifs can also be found on the sacred palace Songsong Agem Dalem which is a sacred palace of Surakarta (Marleen ed. 2004:51). The myth according to Ashley Montagu is a tradition story, accepted historically, that shapes one's beliefs about creation, god, universe, life, and death (Montaga 1961:148).



**Figure 9.** *Naga temanten / Peksi dewata*

(d). *An ornamental motif based on the Wayang (puppet) tradition*

"Wayang tells the various acts of the gods and the Hindu heroes which are considered to take place in Djawa ... The Keraton of Java is essentially the treasury of the ancient Hindu periods, called the Javanese" buddha Buda "(Prijuhutomo, 1953).

The puppet based motif refers to the *wayang* empires, both in human (figure) puppets, animals, and or scene situations. The puppet story becomes a kind of mirror of human life. Ornaments based on humans are usually more pointing to the puppet man with the visualization of the form following the puppet tradition, as manifested in the motifs of *punakawan* and *Pandawa Lima* (five pandavas). There are several other motives: motifs of goddess, *peksi dewata*, motifs of giants, motifs of *jatayu*. Motifs derived from this puppet generally use tradition *lung* motifs. In the epic of *wayang, Pandawa* (Pandavas) is a binary opposition to *Kurawa*. The term five Pandavas refer to five brothers, namely: Yudistira, Bima, Arjuna, Nakula and Sahadewa. In the *Encyclopedia Wayang Purwa*, Pandawa's story in defending its truthfulness, always tackles everything beyond humanity, cruelty and greed and evil -and Pandavas become the winner in his feud with *Kurawa* (Sudibyoprono 1991:375-377). While *Punakawan* is a character in the puppets that plays the role of entertainer and advisor, sometimes acting as a helper for the Pandavas who are in trouble. The puppet function becomes a learning media of traditional art about the characters in the community that puts the Javanese personality as a communication of wisdom.





**Figure 10.** *Punakawan dan Pandawa Lima*

*(e). An ornamental motif based geometry fields and artificial beauty objects*

The decorating motif of the space surface are processed into two motifs: 1) processing the geometric elements (dots, lines, and curves) to form the surface, and arranging them in the composition. 2) moved the field composition of the artificial objects then applied to the *pendhok*. The first motif is a geometrical plane composed of a combination of dots, lines, and curves without any defined pictorial significance. The result is a parallelogram, diamond, which is left empty without *isen-isen* (sweetener pictorial) so that it is plain as a field of geometry. The forms are then re-duplicated into a series that extends to the area of the decorated field (Read 1935: 119). In addition, there is also a composition of ornaments that pluck only one pictorial and arranged duplicatively in the principle of empty field processing. Some motifs that cultivate the need for this empty field is the motif of woven *wajik*, and *modang* motif. The second motif is sourced decoration of geometrical surface composition from an objects. The form is re-placed into *pendhok*, the method of replacing the beauty of the surface obtained by imitation of the beauty of artificial objects, such as wicker of object, with the result is *nganam kepang* motif.



Figure 11. *Nganam kepang motif*

### **The decoration principle of Dhoni Kustanto**

In the 80s most of the techniques used to realize ornaments *pendhokare* using *cukitan* technique, and *wudulan* (typical of Yogyakarta). The usual staining technique is practiced, which is chromium of gold, silver, copper and *silih asih* (two colors with unified become in compositions of alternating). In drawing ornaments, Kustanto always starts from the bottom (base) to the top (tip) of *pendhok*. The size of the ornamental elements of plants, animals, and others usually begins with a small size and gradually getting bigger till reach to the tip of *pendhok*, or to cover the widened field of space is done by adding the number of elements. The tools used are pencil, paper, drawing pens of various sizes.

The pattern of *lung-lungan* became the general basis in the work of ornaments, either as main or additional ornaments, the main or the sweetener part. Rhythm of *lung-lungan* becomes the "center" in organizing various combinational elements. Merging of ornamental traditions, such as leaves, flowers or fruit, and ukel with the form of development creations for later connected to the stem of *lung-lungan* (the spiraled vines). The rhythm of *lungis* a movement from the left and to the right or vice versa that leads to the top, following the logic of plant growth. The shape of the *lung-lungan* refers to the ornamental decorations arranged continuously create the rhythm of alternating (SP.Gustami 2007:120). This *lung-lungan* pattern is used primarily in an ornamental plant motif which derived as the main visual subject, and on the other motifs plants have placed as backgrounds that support the motion rhythm of the main elements in ornaments. There are artistic principles used in making ornaments. Some principles of an arrangement of elements obtained from observations on ornaments and ornament design works of Dhoni Kustanto are as follows:

#### *1. The principle of repetition*

Ornament is said to experience repetition if the same form (picture) is used more than once in design, the form is standing in a situation of repeating its self, or looping, it is the simplest design (Wong 1972:11). Repetition has regularity, which is sought by looping is the rhythm. *Lung-lungan* is a loop to the left to the right or vice versa with the upward direction, so there is the impression of the rhythm of motion as if the rhythm of the kris. The loop occurs on the

element's shape, size, direction, and position by using the opposite technique (mirroring), scaling the size, and adding elements.

## 2. *Reproduced motif as a re-creation of technique, from cukitan to relief*

The *cukitan* technique commonly used as a technique of an embodiment of ornaments on *pendhok*. The technique works in the way of reducing the material by means of carving up the surface, pointing the instrument movement that is pressed to the metal and then moved upwards in an effort to take the surface of the material, so the surface is reduced. The level of *cukitan* technique which deepened then lead to the process the relief techniques on *pendhok*. The relief techniques reached the depth helped with a hammer, chisel, or chisel - relief. The purpose of this technique is to make the shape of ornaments more impressed or protrude by the process of the dimensionality of elements structure. the relief technique he invented to reach the distinction with another *pendhok* master, which the discourse potentially tracked back to the imagery of Hindu-Buddhist relief.

## 5. Conclusions

In the system of kris, the blade is placed inside of the sheath. The blade is the 'thing' that must be covered and protected by the sheath, and the sheath is protected by the *pendhok*. The aesthetic of *pendhok* is different compare to the blade. The *pendhok* is part of the sheath, and precisely wanted to show its beauty to the outside. The basis of its beauties are ornaments, techniques, and materials. The creator of the *pendhok* is *mranggi*. The proffesion is known since era of Majapahit, and through Demak, and then Mataram, *mranggi* profession still needed.

The Kingdom of Surakarta has its roots from Mataram Islam. Although rooted far back, the style of the Surakarta kris is believed to have begun in the leadership of Sunan Pakubuwono III (1749-88) who drew the form of a resilient Surakarta kris. Surakarta kris style recognized from the form of sheath and hilt, especially the sheath of *ladrang* and *gayaman*, with the hilth of *tunggak semi*. The legitimation of Palace identity through the form of kris from the Kartasura to Surakarta has shown that the hegemony of palace then accepted by the *empu*, *pandi*, *mranggi*, and folks, becomes a tradition of the palace and outside of palace.

During the colonialization, kris is a resistance in *kraton* fashion customary, Kraton Surakarta remained the original post-Kartasura trace of cultural authenticity. The conflict over the authority of Mataram which inflicted the Agreement of Giyanti 1755 in era of PB III has divided the Islamic Mataram kingdom into two parts: the Sultanate of Yogyakarta and Kasunanan of Surakarta. It was the time when a kris and its equipment i.e. *pendhok* were regulated to identify the difference between them. If the Surakarta kris is smaller body shape compare to Kartasura, since the *Palihan Nagari* (Agreement of Giyanti 1755) Surakarta kris is known bigger than Yogyakarta kris. The form of Surakarta kris has known by *mranggi* in Surakarta is form in which can distinct with the Yogyakarta, and then becomes a model for the *pendhok*.

The *pendhok* in Surakarta style which accepted by 90s manage generation alike Kustanto is applied to the kris of *tangguh nom* (young period). Kris *tangguh nom* is produced in the period of Mataram Islam (Yogyakarta and Surakarta) in Java until the independence of Indonesia. The characteristics and forms of *pendhok* in Surakarta style are tall, and slender. Dhoni Kustanto extends the power of *cukitan* to relief techniques and using combination method in applying of the imagery from epics, tradition, and cultural as an ornament. Relief



is an art which applied in temples of Hindu and Budha. The relief of stylization in pendhok ornament is touching the senses to the taste of ancient.

## References

- Boomgaard, P. (ed.2013). *Empire and Science in the Making. Dutch Colonial Scholarship in Comparative Global Perspective, 1760-1830*. Newyork: Palgrave Macmillan
- Babu, Sridhar (2015).*Mythological Objects*. Source: Wikipedia Contributor. Link: <https://archive.org/details/MythologicalObjects>
- Ardani, Moh dan Sungaidi, Muh (1999).*Etika Islami Kehidupan Beragama, Bermasyarakat dan Bernegara Dalam Serat Wulang Reh Pakubuwana IV Surakarta*. Jakarta: Research Report at Syarif Hidaytullah State Institute of Islamic Religious Art
- Banerji, Sures Chandra (1989).*A Companion to Sanskrit Literature: Spanning a Period of Over Three Thousand*.Delhi: Motilal Banarsidass Publ.
- Brown, Rebecca M.& Hutton, Deborah S. (Ed.) (2011). *A companion to Asian Art and Architecture*. West Sussex: Blackwell Publishing Ltd. United Kingdom.
- Cederroth, Sven (1991). *From Syncretism to Orthodoxy? The Struggle of Islamic Leaders in an East javanese Village*. Nias Report Vol.3. Denmark: Nordic Institute of Asian Studies
- Ellis, Jeanette (2009). *Forbidden Rites: Your Complete Guide to Traditional Witchcraft*. O Books, John Hunt Publishing Ltd., United Kingdom.
- Florida, K. Nancy (1993).*Javanese Literature in Surakarta Manuscripts: Introduction and manuscripts*. Vol.1, Introduction and Manuscripts of the Karaton Surakarta. SEAP, Southeast Asia Program. New York: Ithaca, Cornell University.
- Guntur (2015).*Alas and Gunung: Their Representation in the Javanese Traditional Batik, Arts and Design Studies*, [www.iiste.org](http://www.iiste.org), ISSN 2224-6061 (Paper) ISSN , 2225-059X (Online), Vol.27
- Groneman, Isaïc (1910). *Der Kris Der Javaner*.Terj.: Stanley Hendrawidjaja. Internationales Archiv für Ethnographie, Band XIX,
- Gustami, SP. (2007). *Butir-Butir Estetika Timur, Ide Dasar Penciptaan Seni Kriya Indonesia*. Yogyakarta: Prasistwa
- Haryono, Timbul (1991-1992). “Gold Metal: Function and Meaning in the Ancient Javanese Society Cultural System in 8-15th Century”. Research Report: the Faculty of Literature, Gadjah Mada University, Yogyakarta.
- Harsrinuksmo, Bambang dan S. Lumintu (1988).*Ensiklopedi Budaya Nasional: Keris dan Senjata Tradisional Lainnya*. Jakarta: Penerbit Cipta Adi Pustaka.
- Harsrinuksmo, Bambang (2004). *Ensiklopedi Keris*. Jakarta: Penerbit Gramedia Pustaka Utama,.
- Hooker, M.B. (1988). *Islam in South-East Asia*. Leiden: E.J. Brill

Janowski, Monica & Kerlogue, Fiona (Ed.) (2007). *Kinship and Food in South East Asia*. Denmark: NIAS (Nordic Institute of Asian Studies).

Katno (2015). *Penerapan Hukum Islam Di Keraton Kasunanan Surakarta Masa Pakoe Boewono IV (Tahun 1788-1820 M)*. Jurnal Profetika, Vol.16, No.1, Juni, 2015:49. Available: <http://id.portalgaruda.org/?ref=browse&mod=viewarticle&article=449709>.

Lieberman, Victor. ed. (1999). *Beyond Binary Histories. Re-imagining Eurasia to C. 1830*. The University of Michigan Press

Lombard, Denys (1990). *Nusa Java: Cross Cultural*. Vol I: Boundariess of Westernization. Jakarta: Gramedia Pustaka Utama.

Haryoguritno, Haryono (2005). *Keris Jawa antara Mistik dan Nalar*. Jakarta: PT. Indonesia Kebanggaanku

Headly, Stephen C. (2004). *Durga's Mosque, Cosmology, Conversion and Community in Central Javanese Islam*. Singapore: ISEAS (Institute of Southeast Asian Studies)

\_\_\_\_\_ (1979). "The Ritual Lancing of Durga's Buffalo in Surakarta and the Offering of its Blood in the Krendowahono Forest". *Between People and Statistics Essay on Modern Indonesian History*. Ed. Committee (Francien van Anrooij, Dirk H.A. Kolff, Jan T.M. van Laanen, Gerard J. Telkamp. Amsterdam: Martinus Nijoff, the Hague, under the auspices of the Royal Tropical Institute

Kossak, Steven M. and Watts, Edith W. (2001). *The Art of South and Southeast Asia, A Resource for Educators*. New York: The Metropolitan Museum of Art

Marleen, Heins (ed.2004). *Karaton Surakarta*. Jakarta: Yayasan Pawiyatan Kabudayan Karaton Surakarta

Margana, S (2005). Naskah No. 7 mengenai undang-undang tentang larangan pemakaian busana tertentu bagi keluarga raja, pejabat kerajaan dan rakyat kecil di wilayah Keraton Kasunanan Surakarta, Undang-undang ini dikeluarkan oleh Susuhunan Pakubuwana IV (1788-1820), *Kraton Surakarta dan Yogyakarta 1788-1880*. Yogyakarta: Pustaka Pelajar

Mulder, Niels (2005). *Mysticism in Java*. Yogyakarta: Kanisius Publishing House

Meyer, Frans Sales (2007 ). *A Handbook of Ornament*. Newyork, Internet Archive: The Architectural Book

Miyazaki, Koji, 1988, *The King and The People: The Conseptual Structure of A Javanese Kingdom*. *Proefschrift. Leiden: Rijksuniversiteit te Leiden*

Montaga, Ashley (1961 ). *Man: His First Million Years*. New York: Mentor Book

Morgan, David O. and Reid, Anthony, Ed. (2011). *The New Cambridge History Of Islam, The Eastern Islamic World Eleventh To Eighteenth Centuries*, Volume 3, Cambridge Histories Online, Cambridge University Press

Nakamura, Mitsuo (2012). *The Crescent Arises over the Banyan Tree. A Study of the Muhammadiyah Movement in a Central javanese Town, c.1910-2010*. Singapore: ISEAS (Instute of Southeast Asian Studies)

Pemberton, John (1994). *On the Subject of "Java"*. Ithaca and London: Cornell University Press.

Pires, Tomé (1944). *The Suma Oriental of Tomé Pires, An Account of The East, from the Red Sea to Japan, Written in Malacca and India in 1512 – 1515*, Vol. 1, London, Printed for The Hakluyt Society, Printed in Great Britain by Robert Maclehose and Co. Ltd, The University Press, Glasgow

Purwadi (2005). *Ensiklopedi Kebudayaan Jawa*, Yogyakarta: Bina Media

Prijuhutomo (1953). *Sedjarah Kebudayaan Indonesia I, Bangsa Hindu*, J.B. Wolters-Djakarta, Groningen

Riddell, Peter G. and Street, Tony (1997). *Islam: Essays in Scripture, Thought and Society*. A Festschrift in Honour of Anthony H. Johns. Leiden, New York, Koln: Brill

Wibawa, Prasida (2008). *Tosan Aji, Enchantment of Cultural Achievement*. Jakarta: Gramedia Pustaka Utama

Raffles, Thomas Stamford (2008). *The History of Java*. Yogyakarta: Narasi

Read, Herbert (1935). *Art and Industry, The Principles of Industrial Design*, New York. Harcourt, Brace and Company

Ricklefs, M.C. (2002). *Yogyakarta di Bawah Sultan Mangkubumi 1749-1792: Sejarah Pembagian Jawa*. Yogyakarta: Matabangsa.

**Ricklefs, Merle Calvin (2006). *Mystic synthesis in Java: a history of Islamization from the fourteenth to the early nineteenth centuries*. Norwalk, CT: EastBridge**

Ricklefs, M.C. (2013). *Mengislamkan Jawa (islamisation and Its Opponents in Java)*. Jakarta: PT. Serambi Ilmu Semesta

Sachari, Agus (2007). *The Visual Culture of Indonesia*. Jakarta: Erlangga Publisher

Sudibyoprono, Rio. R (1991). *Ensiklopedi Wayang Purwa*. Jakarta: Balai Pustaka

Subroto, Ph., & Pinardi, Slamet (1993). "Industrial Sectors in the Majapahit Period ", in Kartodirdjo, Sartono, (et.al). *700 Years of Majapahit: an Anthology*. Surabaya: Regional Tourism Official Agency of the Province of East Java.

Uhlenbeck, E.M. (1964). *A Critical Survey of Studies on the Languages of Java and Madura*. The Netherlands Institute for International Cultural Relations. The Hague, Netherland: Martinus Nijhoff.

Vlekke, Bernard H. M.(2008). *Nusantara: a History of Indonesia*. Indonesian Trans.: Samsudin Berlian. Jakarta: KPG (Kepustakaan Populer Gramedia)

Yuwono, Teguh Basuki (2012 ). *Keris Indonesia*, Jakarta: Citra Sains LPKBN

Wijayatno, Waluyo and Sudrajat, Unggul (2011). *Kris In Scientific Perspective*. Jakarta: Center for Cultural Research and Development, Cultural and Tourism Resources Development Agency, Ministry of Culture and Tourism

Yunus, Toni (2012). *Kris: An Interpretation*. Komunitas Panji Nusantara

Wahby, Ahmed E. I. (2007). *The Architecture of the Early Mosques and Shrines of Java: Influences of the Arab Merchants in the 15th and 16th Centuries?*, Volume 1: The Text. Dissertation in der Fakultät Geistes und Kulturwissenschaften (GuK) der Otto-Friedrich- Universität Bamberg, Bamberg

Wiryomartono, A. Bagoes P.(2016). *Javanese Culture and the Meanings of Locality: Studies on the Arts, Urbanism, Polity, and Society*. London: Lexington Books.

Wong, Wucius (1972). *Beberapa Asa Merancang Dwimatra*. Bandung: Penerbit ITB

Zoetmulder, Petrus Josephus (1974). *Kalangwan. A Survey of Old Javanese Literature*, The Hague: Martinus Nijhoff

