

A Technical Discourse: The Making of *Pendhok* Kris in Surakarta Style

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ABSTRACT

The keris (kris) is a kind of Javanese dagger that has been recognised as a world cultural heritage of humanity by United Nations Educational, Scientific and Cultural Organization (UNESCO). The kris appears in various cultural events, including those of a ceremonial, ritual and sacred nature. It is believed that the possession of at least one kris is an indication of a person's "Javanese" identity. As an artefact, the kris, due to the prestige of its blade, sheath, hilt and pendhok, is a rare work of traditional art. The pendhok is the protective decorative plating on the sheath of the kris, which is usually made from various metals, such as silver, bronze, copper, brass, or even gold, and created by a craftsman known as a mranggi. A beautifully decorated pendhok may be more expensive than the blade itself. Despite an increase in discourse about the kris, there is still a lack of information about the pendhok. There are several forms of pendhok, which follow the two main styles of the sheaths of the Surakarta kris. The pendhok of the Surakarta kris has become a separate part of discourse on the subject of the Javanese kris, whereas in fact it has adapted according to the form of the kris promoted by changes in court policy. In the discourse on the subject of the Surakarta kris, the pendhok in its current form is in fact a material tradition, which displays a Javanese character born out of the relationship between the Dutch and the Javanese elite, as well as the relationship amongst the Javanese elite themselves in the history of colonialism. Taking this as a starting point, it is hoped that this description about the manufacturing of the pendhok in Surakarta style will enrich the existing discourse about the kris.

Keywords: *Pendhok, mranggi, traditional art, creative, identity, Surakarta, Java*

INTRODUCTION

Indonesia has a variety of different traditional art daggers, each with its own local characteristics, which are found mainly in Java. Javanese daggers are commonly called *keris* (kris). Kris is also a branch of traditional Javanese art. Each kris is unique, especially in the city of Surakarta, Central Java. According to myth, Surakarta kris have supernatural or magical powers. This myth is based on an event in which an iron meteor fell to the ground near Prambanan temple some 200 years ago. A small piece of this meteor was taken to the palace, or *keraton*, in year 1784 and subsequently forged into a number of weapons, believed to possess magical powers due to the celestial origin of the iron (Frey 2010).

The kris culture was formed hundreds of years before Surakarta even existed. Ma Huan, a Chinese explorer who visited The Hindu Majapahit Kingdom in East Java in year 1433, noted that Javanese males, from young boys to old men, wore a *pu-la-t'ou* (dagger) at their waist. These knives were all made of steel and decorated with intricate patterns and the handles were made out of gold, rhinoceros horn, or elephant's teeth and engraved with representations of human forms or devil's faces, the craftsmanship being very fine and skilful (Mills 1970). Another explorer, Tomé Pires who personally visited Java around 1512–1515 (Ricklefs 2001), said that "every man in Java, whether rich or poor, must have a kris in his home...and no man between the ages of twelve and eighty may go out of doors without a kris in his belt" (Cortese 1944).

Two hundred years later, Raffles wrote that the kris is an "important manufacture". *Pándi* is the name given to the men employed to manufacture good quality kris blades, while the manufacture of sheaths or scabbards (*sarong*) for the kris constitutes a more exclusive profession, in which the manufacturers are known as *meránggi/tukang werongko-mergongso* (Raffles 1817; 2008). Raffles writes about the industrial system for manufacturing the kris and explains that the different parts of the kris (its blade, sheath, etc.) are made in different labour divisions based on profession and expertise.

The kris can be described as having three different parts: blade (*bilah* or *wilah*), hilt (*gagang*) and sheath (*warangka*). These parts distinguish the style of the kris as belonging to a particular place in the cultural heart of Java: either the palace of Yogyakarta or Surakarta, or the principdom of the Mangkunegaran or Pakualaman. At first, kris were produced only in the royal palaces, but subsequently spread to areas outside the palace. Palace kris were created

by *empu* (sword smiths) who were specially chosen by the king and his noblemen, and whose values and ethics followed those of the palace. Meanwhile, kris made outside the palace by village *empu* often disregarded *pakem* (the standard "rules" of kris making) (Yuwono 2012).

The Surakarta kris was formed as part of the notion for creating an identity for "Java" during the time of the power struggle at the height of Mataram glory. The idea of Java and its traditions, which culturally were formed through the encounter with colonial society and its methods, was produced in Javanology, by a group of essentialists who were seeking the "Orient" in Java, and by the Javanese themselves, who sought cultural recognition from the foreign power holders at the beginning of the 20th century (Jones 2013; Bråten 2005). Pemberton introduces the birth of "Java" by revealing its creation, in inscriptions and chronicles, especially in Surakarta, to show that "Java" has become a figure within and through essentialist discourse. Its grand, cosmic, and what can be understood to be authentic culture, emerged over the course of historical discourse (Bråten 2005). In short, the Surakarta kris is a cultural object born out of a situation that was created between the colonial leaders and Javanese elite and between members of the Javanese elite themselves.

The kris is a basic possession of every Javanese male, and many kris are believed to contain special powers, making them highly sought after even if their workmanship is not of the best quality (Anderson 1990). Both ordinary people and noblemen traditionally bought their kris, sheaths, and *pendhok* from *empu* and specialised craftsmen (*mranggi*) who lived in the villages. The skills required for kris making were not a monopoly of palace *empu*, but became more widespread amongst craftsmen in the general community (Hamzuri 1988). Sheath makers spread to areas outside Yogyakarta and Surakarta, including western parts of Central Java such as Brebes, Tegal, Sumenep, Banyumas, Cilacap, Purbalingga, Banjarnegara, Wonosobo and Kebumen, which all formerly belonged to the Sultanate of Mataram (Surakarta and Yogyakarta), as shown in Figure 1. In these areas, the two different styles of Mataram kris can also be identified.

Today, kris are used in traditional performances and wedding ceremonies or simply kept in a person's house as a sacred item to indicate the "authentic" Javanese identity of the person. The traditional art industry and tourism have caused the kris to shift from its original state as an heirloom to become an "authentic" Javanese commodity. The kris has become a souvenir, and the *pendhok* is a supplementary part of the kris. The impression of beauty in the *pendhok* is produced by a number of aesthetical aspects, including the quality of the

product, its materials, and its ornamentation. These qualities bring about a variety of different impressions, such as sacred or profane, ornate or simple, smooth or rough, expensive or cheap, authoritative or understated. The *pendhok*, which originally functioned as the protective part of the kris, has thus become a striking part of the object and in economic terms its value surpasses that of the blade.

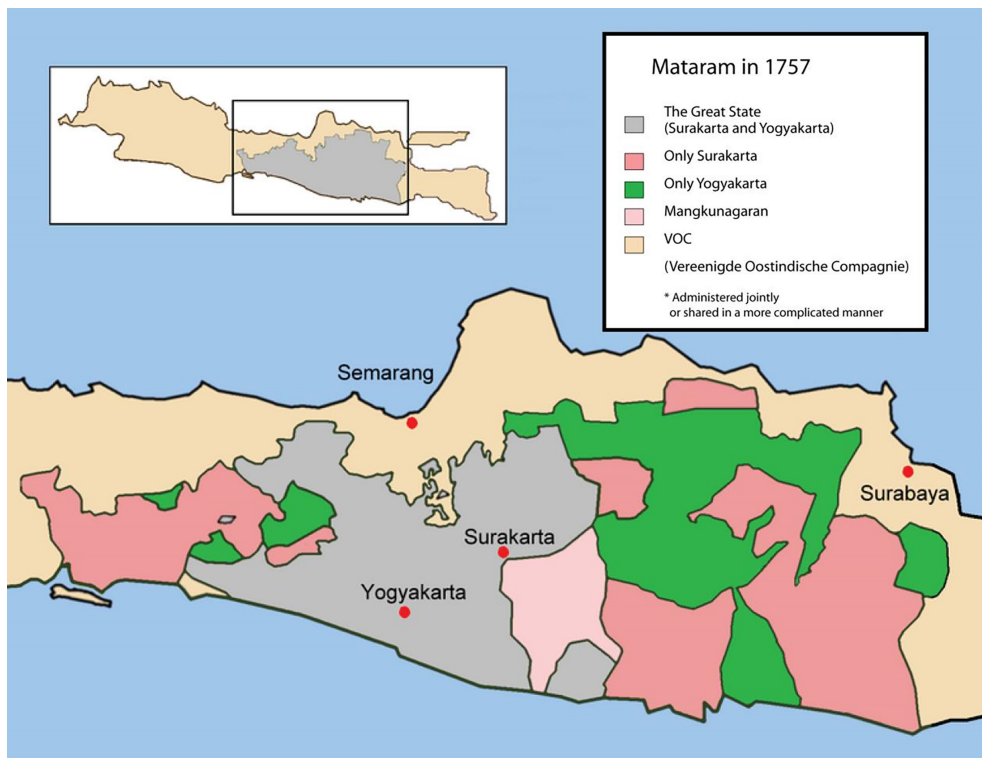


Figure 1 Map of Mataram after the Giyanti Agreement (1755).

Source: https://id.wikipedia.org/wiki/Perjanjian_Giyanti.

Accessed 19 March 2017.

LITERATURE REVIEW

In the Javanese language, the word kris has various hierarchical names: *keris* (*ngoko*), *dhuwung* (*krama*) and *wangkingan* (*krama inggil*) (from <https://jv.wikipedia.org/wiki/Keris>). In manuscripts belonging to Surakarta palace, the words *wangkingan* and *dhuwung* are used to refer to the kris (Florida 1993). The choice of *ngoko* (low Javanese), *krama* (high Javanese) or *krama inggil* (royal-court Javanese) words is not related to age but rather it is concerned with the hierarchical relationship between the subjects of the speech. However, according to Siegel (1993), *ngoko* expresses authenticity and *krama* masks the intentions that are so clearly expressed in the *ngoko* level, by using a polite form, which is quite a reasonable notion.

The survival of the kris cannot be separated from its practitioners and its communities. Kris practitioners (masters of the blade, sheath and *pendhok*) have played an important role in sustaining and developing the kris. The blade requires a sheath that is decorated with a *pendhok* and this has become an integral part of the aesthetics of the kris (Ferdian 2013). In kris practices, the *empu* is identified as the blade maker, while the *mranggi* is identified as the supplementary craftsman (Yuwono 2011).

Unfortunately, appreciation of the kris more often focuses on *pamor* (nickel pattern) and the sheath. Consumption is often oriented towards *pamor* because it is believed to possess a magical, spiritual or supernatural value. The scarcity of wood used for making the sheath also makes it more valuable. The subjects of *pamor* and sheath dominate most existing discourse about the kris. Unlike these more dominant elements, the *pendhok* is regarded as an accessory or *sandhangan* (clothing) and possesses no core value.

Scholars have provided a general definition for *pendhok*: (1) the part of the sheath, known as the *gandar* that is made from metal such as gold or silver and carved, (2) the engravings on the *pendhok* that add value to the beauty of the kris, (3) the various types of *pendhok* and materials (Astuti 2013). Academic texts are more likely to review the kris than the *pendhok*. Although Haryoguritno (2005) states that the sheaths of kris from Surakarta and Yogyakarta are equipped with a *pendhok*, the discussion about this is limited, and neglects to mention the various aspects of its decorative art and creative process. However, this does not mean that there is no literature at all on the subject of *pendhok*.

Pendhok can be categorised according to material, technique, style and type, as well as social function. With regard to material, *pendhok* are made from a variety of metals, such as brass, bronze, silver or even gold and also other types of metal such as *swâsâ*, a metal alloy that resembles gold (Groneman 1910). Based on shape, *pendhok* can be categorised as *pendhok bléwah*, *slorok*, *bunton*, *topengan* and *kemalon* (Groneman 1910; Haryoguritno 2005). The different techniques used for making *pendhok* are *pendhok krawangan*, *pendhok tretes*, *pendhok cukitan* and *pendhok tinatah*.

Groneman (1910) describes *pendhok* as a sleeve that serves as a protective sheath or scabbard, specifically a glove (*sarung iras*), which is very valuable. Haryono Haryoguritno (2005) defines *pendhok* as a "supplement" or a metal sheath wrapping, which is a symbol of self-confidence. The simplest *pendhok* are usually made of brass or copper, but fancier ones may be made of silver or gold and decorated with diamonds and other precious stones. The *pendhok* serves as a protective coating for the part of the sheath known as the *gandar* (Purwadi 2005). As described by Harsrinuksmo and Lumintu (1988) different models of *pendhok* are associated with ethics, some *pendhok* being prohibited for ordinary people and only permitted to be worn by nobility. *Pendhok kemalon*, which has a white background, should not be used by ordinary people and *pendhok tretes*, which has a unique sheath, may only be worn by the king.

Javanese literature has contributed to creating an image of "Java", in a specific way, through the description of the kris. The *pendhok*, as part of the kris, has been translated and described as the "origin" of references on the Javanese kris. What has not yet been described is the "system" of *pendhok* production, in which the *mranggi* have become more like a living heritage, and their product a symbol of luxury. In connection with this, it is important to gain an understanding of the creative process for manufacturing the *pendhok* and specifically to investigate a specialised craftsman who is a descendant of a *tukang mranggi*.

METHODOLOGY

Since "Java" is a subject of discourse produced by the Javanese and colonial elite and the kris is a part of this culture of Javanology that is of interest to be studied, the decision to carry out a case study to investigate a *pendhok* craftsman who also comes from a lineage of *mranggi* is considered to be a suitable choice of method for this research. This case study is important because it reveals the artistic process that takes place in the current era. Dhoni Kustano is

one of only a small number of *pendhok* craftsmen in Surakarta, and belongs to a family of *mranggi*. He has been consistent in devoting himself to the art of the Surakarta kris, is capable of producing classical *pendhok* as a legacy, as well as creating new motifs, and his creations are found in the homes of many collectors. He also shares his designs with other *pendhok* practitioners. The aim of researching the figure of Kustanto is to obtain a general overview of the process of *pendhok* making, the style of Surakarta *pendhok* and its various types and forms. Surakarta was chosen as the location of the research because of its status as the cultural center of Java where the existence of kris practitioners can still be found. As seen in Figure 1, Surakarta is a central part of the Javanese cultural legacy where traditional arts have been created, preserved and developed. The logic used here is to study the kris culture which has permeated from the centre, rather than investigating the Surakarta style which is rooted in the periphery.

This study uses a qualitative exploratory approach to investigate the 1980s generation of *pendhok* craftsmen. The study focuses on the process in which the house is used as a workshop, including the procurement of equipment and materials, the manufacturing process, and visual documentation (photos, image selection/design), in order to gain an idea of the work performance. Additional data was collected through literature and documentation.

There are two kinds of data used in this study, namely written and visual materials. The written material includes information, ideas and opinions that have been published in journals and books, online publications and also material written in the form of academic papers. The visual data includes images and photos. The data was analysed using a written and visual exploration approach.

The literature described above was used to discover the original concept of the *pendhok*, which required information about the history of the kris, using *tanggung* (periodisation) as a means of identification. This type of periodisation is used to determine the style of the Surakarta kris, commonly known as *Tanggung Surakarta* (the Surakarta period) or more specifically *Tanggung Nom* (the young period) and this is used as a reference for determining the size and type of the *pendhok*. The literature study also looked at the history of materials used for kris making and the kris industry in general, as well as other related professions during the Early Classical Period of Java. All of these investigations aim to discover how the "Javanese" kris developed throughout the Mataram era, and became compacted in the Surakarta style.

DEVELOPMENT OF THE *PENDHOK*

Maisey (1998) writes that the dagger, which came into being in the early classical period (between the end of the 7th century and the end of the 9th century) was known as the kris *buda*. Java was heavily influenced by Indian culture and ideas, and the dagger that Ma Huan described when visiting Majapahit was probably a kris *buda*. The form of this kris was conditioned by its habitual use as a weapon or as a personal clothing accessory (Maisey 1998). Maisey's essay focuses on the evolution of the blade, while reference to craftsmanship is directed towards the hilt. The sheath, as the object to which the *pendhok* is applied, is not mentioned in this text.

The availability of material, technical knowledge, and craftsmanship, on the other hand, can be traced to literature on metallurgy. Wolfgang Marschall (1968) writes that between the 7th and 10th century, the goldsmith's art was prominent in all the cities of the Central Javanese kingdom that had a lot of gold, and the techniques used did not deviate much from European techniques. The *pande mas* (goldsmith) in the royal Javanese courts was one of the most highly regarded artists. Metals such as bronze, copper and brass were obtained by Javanese craftsmen in trade deals with China and Europe. Java was definitely an importer of gold, since it was the only populated center that did not have its own source of gold in the 15th century (Reid 2011).

Between the 7th and 15th century, industries employed groups of craftsmen with special skills in making things beautiful. In ancient Javanese society, gold was associated with finery and jewellery, and was chosen due to its attractive nature and beautiful colour (*suvarna*) (Haryono 1991–1992). These groups of craftsmen not only worked for ordinary citizens but also for the king and his relatives. The professions needed in this group of craftsmen included weavers, tailors, artisans, *penyelup* (craftsmen who specialised in batik colouring), jewellery makers and goldsmiths (*pande mas*) (Subroto and Pinaridi 1993). They were members of a "special" community who had inherited their skills over generations and due to their role in the royal court, they were often mentioned in inscriptions. These craftsmen were important in the industrial sector and the economic life of the state and they became residents in the palace (Supriyanto 2014). The profession of *mranggi* belongs to this group of craftsmen and refers to a person who specialises in making and decorating the sheath of the kris.

The kris sheath can be described as the product of an exclusive profession, and the manufacturer is called a *tukang mranggi* (Raffles 1817). Since the time of the Kasunanan Kartasura, the *pendhok* was a subject of discourse when Paku Buwana IV (1788–1820) prohibited certain types of *pendhok*: *parijata*, *tatahan sawat* and *kemalon abang* (Margana 2005) from being used. The kris found in Mataram from 1584 (Panembahan Senapati)–1788 (Paku Buwana III) is known as *tangguh nom* (young period) and the kris from the sub-period of Kartasura is identified as *tangguh tengahan* (middle period). With regard to the identity of the kingdom, *mranggi* were required to make a high quality of sheath: a protective and precious part of the kris with a formal sign on it, which made it possible to identify the origin or value of the kris. The job of the *mranggi* is a subject that belongs to original discourse in the context of the identity of the kris as a legacy of the Mataram era.

After the Giyanti Agreement (1755), it is likely that the kris was used to reaffirm the identity of the Surakarta and Yogyakarta kingdoms. This meant that the *mranggi* essentially had to establish relations with specialists of precious metals and stones so that they could decorate the kris sheaths in order to achieve a level of symbolic power. The object created by these specialists later became known as the *pendhok* and the specialists who decorated the *pendhok* were referred to by Timbul Haryono, and subsequently affirmed by Basuki Teguh Yuwono, as *penggaluh* (jewellers) (Yuwono 2011).

Kris Style in *Tangguh Surakarta* (Surakarta Period) Used as *Pakem* (Standard Form) for *Pendhok*

Surakarta is rooted in the Islamic Mataram dynasty. The Giyanti Agreement, which was signed in 1755 during the era of Pakubuwana III (1749–1788), is an important document for understanding the history of Java (Ricklefs 2014), and describes the division of the Islamic Mataram territory into two parts: Kasultanan Yogyakarta (Sultan HB I) and Kasunanan Surakarta (Sunan Pakubuwana III), marked by the natural boundary of the *Opak* river. In this agreement, Prambanan temple, the place where the iron meteor fell, was a part of Surakarta. Some documents mention that PB III's desire to gain political dependence was encouraged by *Vereenigde Oostindische Compagnie* (VOC). Interestingly, he believed that creating a Surakarta kris would provide a distinction with Kasunanan Kartasura (1680–1745) (Joko 2012). The result is that the kris of *tangguh nom* can be identified as belonging to Mataram, while the kris form created by PB III is known as *Tangguh Surakarta*.

The *tangguh* form itself originated from the post-Kartasura era, and became known as *Tangguh Surakarta*, first appearing in year 1749 and continuing throughout the reigns of Pakubuwana IV, Paku Buwono V, Mangkubumen, Paku Buwono IX and Paku Buwono X. The *empu* at that time were Brajaguna, Brajasetika, Ki Tirtadangsa, R.Ng Jayasukadga, R.Ng Japan, R.Ng Singawijaya, R.Ng Brajasetama, R.Ng Wirasukadga and Ki Mangunwalela. Some texts explain that during the time of PB III, kris were too straight. During the reign of PB IV, the kris had a length of around 37–38 cm and thereafter were shortened to about 35 cm.

Coming face to face with colonialism made PB IV more interested in the potential of Islam as a social movement. Pakubuwana IV (PB) was known to have been influenced by the Islamic scholars (*ulama*) of the time, and made changes to the rules of fashion, replacing the Dutch-style warrior clothes with Javanese clothes, and requiring court servants (*abdi dalem*) who appeared before the king to dress in clothes similar to those worn by Islamic students (*santri*) (Katno 2015). Literary research on PB IV's work *Serat Wulang Reh* shows that Surakarta literature can be divided into two types of Islam: *Islam santri* and *Islam kejawen*. Literature belonging to the *Islam santri* type developed in Islamic schools (*pesantren*) and prayer houses (*surau*) and contained lessons on Islamic *sharia* law, while literature classed as *Islam kejawen* tends more towards the use of the Javanese language rather than Arabic letters, one example being *primbon*, the contents of which are developed according to the Javanese tradition (Ardani and Sungaidi 1999).

Pakubuwana IV also prohibited the general use of a certain type of kris, which at that time was a common accessory used by members of the aristocracy, courtiers and the general Surakarta community. The kris that he prohibited had a handle or hilt known as *nunggak semi*, and had one of several different kinds of *pendhok*: *parijata*, *tatahan sawat* and *kemalon abang*. Kris with the *nunggak semi* hilt were only allowed to be used by courtiers and enlisted personnel of the palace (Margana 2005), as written in *Sêrat Undhang-undhang Awisan Dalêm* (Widyastuti 2015).

The prohibition of certain *pendhok*, and the poverty in the Surakarta palace over the next period, especially in the time of Pakubuwana X and XI, meant that the royal court did not have the necessary funds to appoint kris masters to administrative positions. Moreover, the idea of nationalism and independence, which ultimately led to the establishment of the Indonesian Republic, was in full sway during this period. As a result of these problems, there were no more *empu* during the reign Pakubuwana XI (Joko 2012). This also caused some technical knowledge related to the manufacture of *pendhok* to be lost in the transition

to the next generation, although it was also confirmed that *pendhok* held a place of special significance. The kris industry experienced a decline, but the kris form during this period was generally based on the form of *Tungguh Nom* – Surakarta.

Tungguh (period) is a concept used for identifying kris in relation to the time and place, or kingdom in which they were made, and also the *empu* by whom they were made. *Tungguh Nom* is identified as the period 1614–1945 and its kingdoms are Kartasura and Surakarta, both belonging to the Mataram legacy. The Surakarta kris is recognisable from the shape of its sheath, especially the *ladrang* sheath and *gayaman* sheath, with a hilt of *nunggak semi* (Yuwono 2012).



Figure 2 *Ladrang* sheath and *Gayaman* sheath.

Source: <http://www.geocities.ws/javakeris/glossary.htm>.
Accessed 13 July 2017.

The style of the Surakarta kris, which has been passed down to the present day, was first conceptualised by PB III with the aim of differentiating it from the kris of Kasunanan Kartasura (1680–1745), with which there was a conflict of power over the authority of Mataram. The Surakarta period is generally identified as being the time when Pakubowono III held power, from year 1749–1788. Harsrinuksmo in the Encyclopaedia of National Cultural, assigns a wider range to the period of Surakarta, namely from 1726–1945. The period after 1945 is often referred to as *tungguh kamardikan* (the period of sovereignty). The hegemony of the palace in the form of the kris was accepted by the *empu*, *pande* and general public as the characteristic shape of a Surakarta kris.

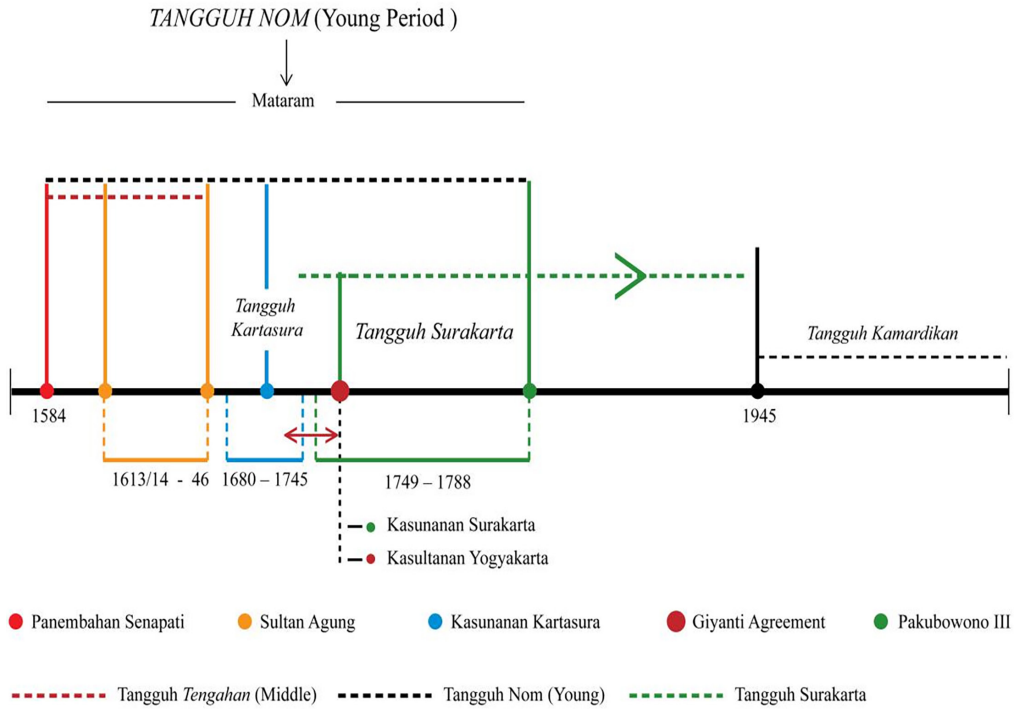


Figure 3 The period of becoming *Tangguh Surakarta*.

While the concept of *tangguh* itself is still a subject of debate, in the current collectors' market for kris, *tangguh* is used as the main form reproduced by kris masters and also *pendhok* masters. In addition to Surakarta, there is also a *Tangguh Yogyakarta* form that has been identified since year 1755, the year of the Giyanti Agreement. The most visible difference between Surakarta and Yogyakarta style is the size of the sheath, the Surakarta sheath being larger than the Yogyakarta one. The existence of two related "states" (*negari*) is frozen in the form of the *tangguh*. Many Javanese find it hard to conceive of the existence of two symbols of Mataram. The principalities of Yogyakarta and Surakarta have led separate existences for more than two hundred years, despite being less than forty miles apart (Anderson 1990).

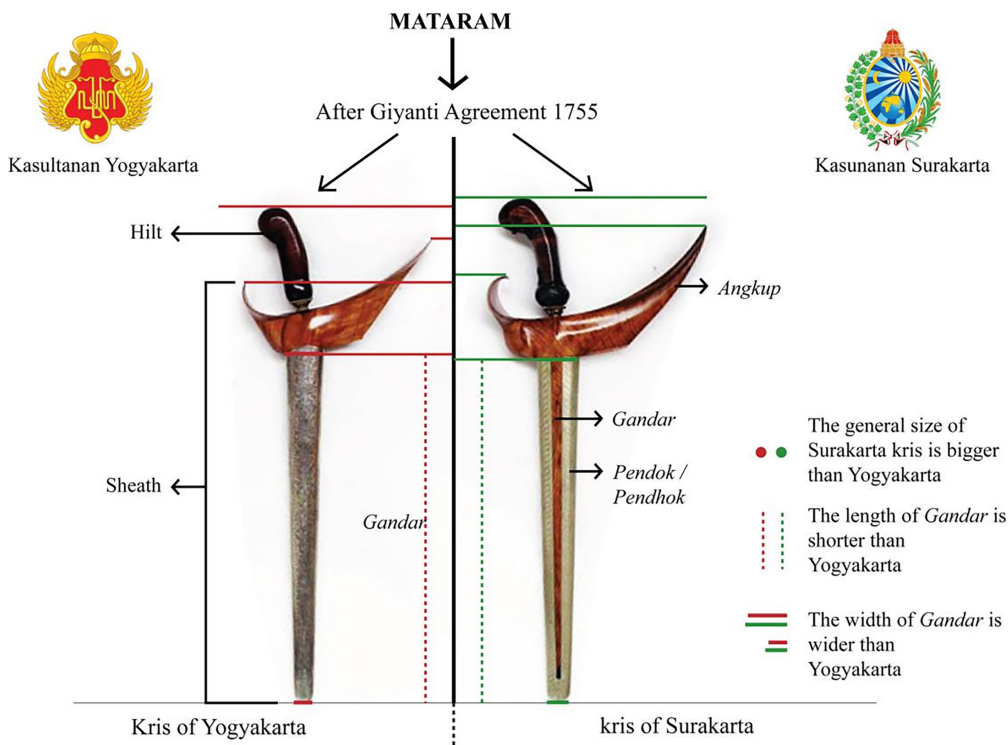


Figure 4 Kris size comparisons after Giyanti Agreement 1755.

From *Mranggi* to *Pendhok* Artist: A Case Study of Dhoni Kustanto

The words *pándi* (ironworker), *kemásan* (goldsmith), *m'ràng'gi* (sheath maker), *anyáara-wedi Retna* (jewellery maker) and *anyádur-rasa* (silversmith) (Raffles 1817) come from *kawi*, the ancient Javanese language used in the Hindu-Buddhist era. *Mranggi* signifies the family that makes the hilt and sheath of the kris. All of these professions allow the possibility for decorating the *pendhok*. A number of palace *mranggi* in Surakarta can still be identified, such as M.Ng Nayawarangka III who is described as *Abdi-dalem Mantri Mranggi Gedhong Kiwa* (a court servant who worked as a *mranggi* in Gedhong Kiwa) from the Surakarta Keraton, as

written in *Kawruh damel sarungan kanggé tuntunan sadhèrèk ingkang remen andumugèkaken dados mranggi* (A guide to sheath making for those who wish to become a *mranggi*) in year 1913 (Florida 1993). Today, some of the technical knowledge related to the *pendhok* that were on PB IV's prohibited list, especially knowledge about colouring techniques, is no longer known by contemporary *pendhok* makers who belong to the lineage of *mranggi* from outside of the palace.

The *tukang mranggi* is an exclusive profession and refers to a person who manufactures kris sheaths (Raffles 1817). Harsrinuksmo describes *mranggi* as a professional or expert who is not only skilled in the art of sheath making but also proficient in reading the character of the person who has ordered the kris's sheath, and capable of determining the right quality of wood and wood-cutting sheath materials using a concept known as *pelet kendit* (the form of an image with a straight dark brown, black, or white pattern that appears horizontally on the surface of the sheath) (Harsrinuksmo 2004). Some names of well-known *mranggi* from Surakarta are *Nayawirangka* or *Atmacendana*, *Prodjowirongko* and *Darmowirongko*. In the early 1960s, Javanese power and culture were generally kept separate and the ancient royal palace was in a filthy and "forgotten" state. However, when the New Order government promoted "traditional Javanese thought" as the nature of power, the "Java" that had been constructed by the colonial elite plus the Javanese elite from the palace, together with its representation in Javanology, became a concept that had to be obeyed by the people (Anderson 1990). After the drastic changes in the political situation, few *mranggi* remained in Surakarta. One of these is Dhoni Kustanto, a *pendhok* master belonging to the generation of the 1970s.

Kustanto was born in Solo on 2 July 1971 into a family that belongs to the tradition of *mranggi*. He is a member of the third generation (grandchild) in a *mranggi* family from outside the palace. During his childhood, after finishing school and before going to play, he would help his parents with their work as *mranggi*: smoothing the sheaths; cleaning (*njamasi*) the kris; smoothing the *pendhok*; and other light jobs. His habit working as a *mranggi* continued up to high school age. On entering his third and final year of high school, his interest in *pendhok* started to become more professional, and he began to reproduce images from old *pendhok*, cutting the plates through the ornaments (*ngrawang*) on material with a thickness of 0.8 to 1 mm, and continuing with the manufacturing process. During the 1980s, *pendhok* generally used copper and brass. Kustanto's work in the process of creating a *pendhok* begins with the customer bringing an existing *pendhok*, which is then redrawn and manufactured.

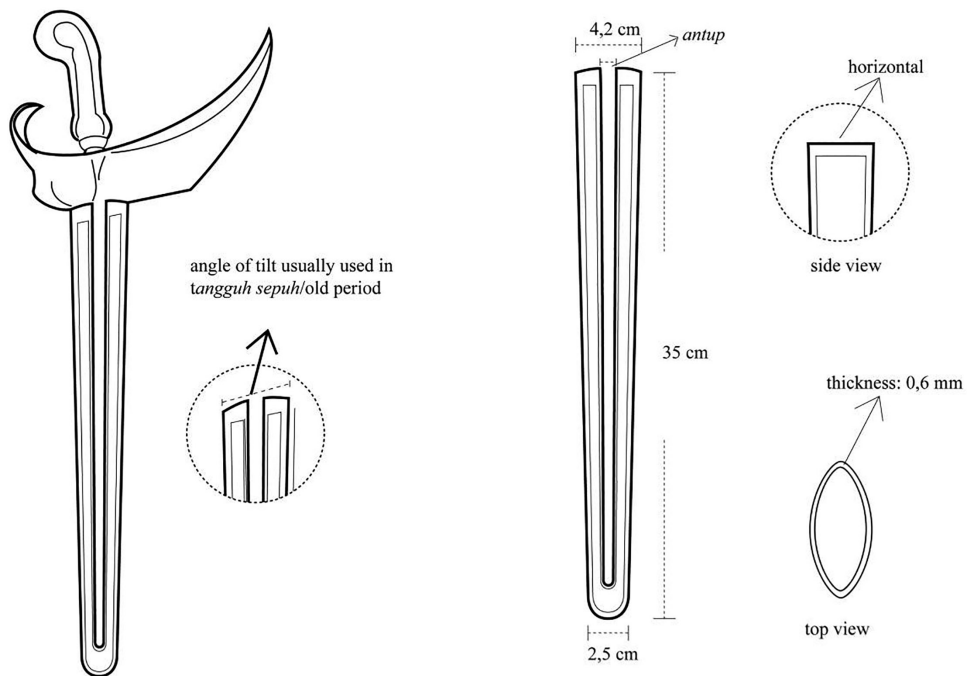


Figure 5 The anatomy of *pendhok blewah* in Surakarta style.
Illustration by Dhoni Kustanto.

Types and Forms of *Pendhok* by Dhoni Kustanto

Pendhok buntun

The casing of the *pendhok* is intact. The measurements of a typical *pendhok* Surakarta are 35 cm in length, 4.2 cm in width at the top and 2.5 in width at the bottom. The materials used are brass, silver, gold, or copper. The characteristic of brass can be seen in the yellowish colour of the metal surface. Silver has a bright white base colour, gold has a shiny yellow colour and the metal surface of copper looks slightly reddish. A gold colour is often used in the finishing process.



Figure 6 *Pendhok buntun* (left: made of brass; right: made of copper).
Image courtesy of Cendano Putro Art Gallery.

Pendhok blewah

The *pendhok* has a hole in the middle, which extends vertically following the length of the *pendhok*; it is wider at the top and narrower at the bottom. If the *pendhok* is fitted to the wooden sheath (*warangka*), the wood of the sheath can be seen from the outside. The standard measurements of this type of *pendhok* are a length 35 cm, a width of 4.2 cm at the top and 2.5 cm at the bottom. For this type, Kustanto often uses materials ranging from brass to silver, gold or copper.



Figure 7 *Pendhok blewah.*
Image courtesy of Cendono Putro Art Gallery.

Pendhok selorok

The shape of this type of *pendhok* is adapted to the shape of the sheath. If the sheath type is *gayaman*, the *pendhok* will follow, and likewise for *ladrang*. The metal is intact and connects to the figure of sheath. The materials used are primarily brass, silver, gold or copper.



Figure 8 *Pendhok topengan, krawangan* technique.
Image courtesy of Cendona Putro Art Gallery.



Figure 9 *Pendhok* pattern
(*ndhak-ndhakan*).
Image courtesy of Bening Tri Suwasono.

MATERIALS AND MANUFACTURING PROCESS OF *PENDHOK*

Materials

The materials used are: brass, silver, gold, copper and precious stones (diamonds and gems). The use of precious stones on the *pendhok* is quite rare and its only purpose is to beautify or enhance the appearance, and increase the prestige value of the person who wears it. If a *pendhok* is made using gold and jewels, its price will be higher. In former times, only the king and his noblemen or aristocrats possessed *pendhok* that were studded with diamonds.

In the 1990s, *pendhok* were more frequently made from silver. In contrast to brass or copper, silver is provided in the form of granules and as such, it first needs to be formed into flat slabs or plates. From these plates, it is then formed in accordance with the size of the pattern. The materials that need to be prepared are referred to as the pattern pieces (*ndhak-ndhakan*). A *pendhok* pattern is 35 cm long, 8.4 cm wide at the top and 5 cm wide at the bottom. Currently, Kustanto more often uses silver rather than copper or brass. He explains that the plate-shaped silver metal has a sufficient thickness ($\pm 2.5\text{--}3.5$ mm) and its surface is soft and slippery for chiselling. Compared with copper, its thickness is thinner and more slippery for carving.

Table 1 Types and materials of *pendhok*.

Type of <i>pendhok</i>	Materials		
	Brass	Copper	Silver
<i>pendhok bunton</i>	√	√	√
<i>pendhok blewah(an)</i>	√	√	√
<i>pendhok slorok</i>	√	√	√
<i>pendhok topengan</i>			√

Tools and Functions

The tools that are used in the manufacture of *pendhok* are: chisel, *sunglon*, whetstone, hammer, file, sandpaper, soldering tools, clamp, saw, cutting pliers, *gangsurs*, scales, stove and roller machine.

1. *Pahat* (chisel)

The different types of chisels include the *cukit* (pick), *latar* (background), *tumpul* (blunt), *nyangling* and *tamparan* (rope motif). Each tool has a different function for creating an image pattern, background, texture, smoothing and outline.

2. *Batu Asah* (whetstone)

There are two types; first, a whetstone with a rough surface, used to accelerate the sharpness; second, a whetstone with a smooth surface, used to refine the previous shaving, making the sharpness more durable.

3. *Palu* (hammer)

Used to shape, repair or smooth uneven surfaces during the process of carving.

4. *Kikir* (sharpener)

Used to smooth the plate. There are a number of sizes: small, medium and large.

5. *Amplas* (sandpaper)

Used to smooth the plate. There are several sizes of sandpaper, varying from coarse to the fine, with measurements ranging from 150 to 220, 240, 380, 440, 500 and 1,000 micrometer (μm). In this phase, the sandpaper is usually arranged in pairs on bamboo slats that serve as handles.

6. *Alat patri* (soldering tool)

The *patri* functions as a tool to join the plate on both sides, as well as to attach the engraved patterns to the *pendhok*. Other equipment required for the soldering process includes a stove, usually using gasoline.

7. *Timbangan emas* (gold scales)

Used to measure the weight of silver, copper, gold, and brass. The ratio used is 2:1 (silver: brass).

8. Borax

This acts as a catalyst for joining together the two kinds of metal materials.

9. *Sunglon* and *klem*

The *sunglon* is a mould, made of brass, while the *klem* is a clamp that locks the plate in order to prevent it from coming loose or shifting.

10. *Gergaji kemasan* (hacksaw)

This is used for making the pattern, especially for the *krawangan* motif.

11. *Landasan/paron* (anvil)

The anvil is made from steel and is square shaped; it is usually placed on top of a log which functions as the base. It provides a stable base at the time of forging and forming the metal.

12. *Tang* (pliers), *tali* ("rope" made from tin cans) and *tang potong* (cutting pliers)

The cutting pliers are used to cut the rope. The rope is used to bind the two sides of the pattern and to bind the engraved pattern during the soldering process.

13. *Jabung*

Jabung is made of resin (*damar selo*) mixed with brick powder and a little oil. This material is solid when at a cold temperature and becomes liquid when heated.

14. *Gangsur*

The *gangsur* is made of brass and serves to smooth the surface of the plate that has been shaped into the *pendhok* while still fused with *sunglon*.

15. *Mesin poles* (polishing machine)

This device is driven by an electric motor, and has two pivot discs that can be used for the polishing process. In order to obtain the best possible results, usually a green stone (*langsol*) is added during the polishing stage.

The Process of Making *Pendhok*

First, the silver ore is prepared. After weighing it on special scales, the silver ore is inserted into the *kowi* (crucible) for fusing/melting. The stove is filled with gasoline and prepared for the silver smelting process. After the silver has melted, it is then poured into the mould to form a plate. Next, the silver plate is heated and galvanised with the anvil to create a thin

plate according to the pattern. This process is repeated, heating and shaping the silver plate in accordance with the desired shape. During this galvanising process the silver plate must be hot; if a plate of silver is galvanised when it is cold, it will break. When the desired shape has been achieved, the plate is immersed in sulphuric acid (H_2SO_4) in order to clean it from the encrustation of residue from the combustion process. In order to achieve the desired level of thickness, the silver plate is placed into a roller machine. This process is repeated to achieve the desired shape and the final form before placing it into the sulphuric acid. The next stage is the process of pattern making for the *pendhok*, known as the technique of *krawangan*.

***Krawangan* technique**

Normally this requires two pieces of plate-shaped *pendhok*, which are then combined to become a single piece with the angle of the curve as shown in Figure 5 (top view). The first step is to prepare the *pendhok* model or silver sheath. The silver plate needs to be cut, and the size adjusted and shaped using the *sunglon* mould and clamp. The model is then tied up with the "rope" made from tin cans, from the tip to the base, with a distance of approximately 3 cm between the pieces of rope. Next, borax is applied to the joints of the connecting sections using a brush, then heated until the tin "ropes" break. The surface of the "model" is flattened using the *gangsurs* and then reheated. Next, the tip of the "model" is formed into curved corners. The tip of the "model" is preheated and the joints smoothed and then welded.

The second step is to make a patterned plate using the *krawangan* technique in which the pattern is applied to the silver plate. The parts of the motif that are to be perforated are drilled and the holes are then perforated using a hacksaw. Next, borax powder mixed with water is applied to the surface of the plate on the inner side using a brush. Then the mixture of silver and brass that has been cut into small pieces is pasted onto the surface that has been smeared with borax water, and burned. The patterned plate needs to be moulded (*sunglon*) and clamped (*klem*) following the shape of the *sunglon*.

The third step is to incorporate the two layers of the *pendhok* plate: the patterned plate with the *krawangan* motif and the "model" to become one, by attaching the patterned silver plate to the first *pendhok* (sheath), fastening it and then heating it – and as a result the two separate parts become one. The connecting lines on the first *pendhok* are covered by the plate with the *kawangan* motif.



Figure 10 The process of *pendhok* making.
Image courtesy of Bening Tri Suwasono.

The fourth step in the *krawangan* technique is to make a *jabung*, prior to the process of carving the motifs. The *jabung* is made from a mixture of sap/latex/resin of *damar selo* (*Agathis dammara*), brick powder, and oil. The function of the *jabung* is to act as a cushion during the chiselling/carving process. The *jabung* is heated until it melts, then poured into the *pendhok* (sleeve) until it is full, and refrigerated until it becomes hard. The half of the *pendhok* containing the *jabung* liquid is placed in a horizontal position and allowed to cool. When the *jabung* has hardened, the *pendhok* is ready to be carved. The chisel is used as needed to obtain the best results.

The last step is to release the *jabung* by way of heating. After that, the *pendhok* is soaked in gasoline to remove any debris. The finishing process usually involves polishing the *pendhok* with a polishing machine, while at the same time adding *langsol* or solid fats (green stone) for maximum results or to make the final product shinier.

Aspects of Materials and Colours

The most common materials used for making *pendhok* are silver and copper. Copper is currently easy to obtain and inexpensive, however *pendhok* often use silver, because it is easier to engrave or to create a form of relief. In addition the thickness can be controlled to between 1.5 and 2 mm, and the residue can be melted down and reused. Apart from making it easier to create a type of relief, silver also increases the sale price. The level of solidity of the material also determines the manifestation of the relief carving. The colouring of the *pendhok* is usually the natural colour of the material used, which is then glazed, sometimes using a combination of two colours (*silih asih*) such as gold and silver, in which the silver material is polished using a solution of real gold (*urik emas*) that is painted onto the *pendhok*.

Quality of Workmanship

One *pendhok* requires a processing time of between three weeks and one month in order to achieve compatibility between design and form, and to produce a complete impression, which is smooth, complex and highly detailed with a dimensional impression of form. Generally, this process is followed to achieve a refined quality of *pendhok*.

The general manufacturing process for *pendhok* is outlined in the diagram below:

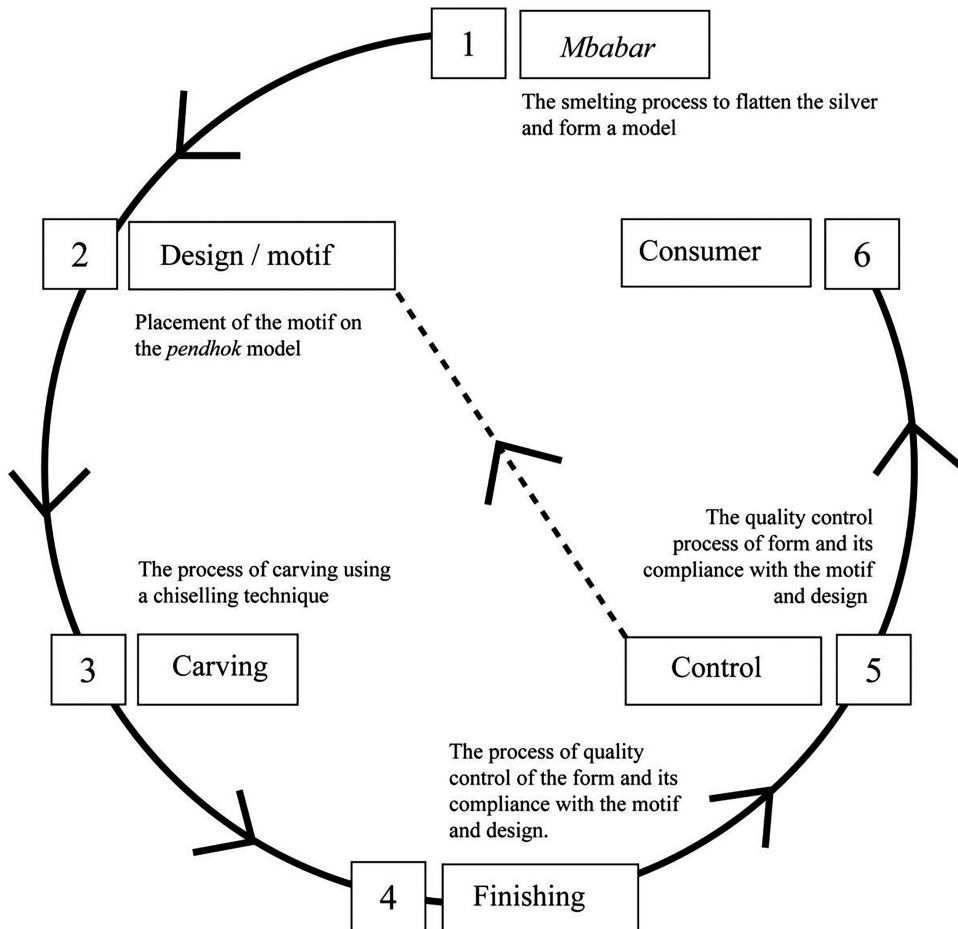


Figure 11 The global process for the manufacturing of *pendhok*.

CONCLUSION

Throughout the history of kris production, different kinds of *pande* (blacksmith, goldsmith, and jeweller) have always been associated with their own specific skills in the making of ornaments – skills that have been passed down as a part of Surakarta culture. There is a provisional hypothesis that the ability to make jewellery indicates the practice of beautifying a functional object (in this case the *pendhok*) by decorating it with precious stones, while the art of decoration, such as drawing ornaments, carving, and metalworking (with silver, copper, gold, etc.) is a general skill possessed by all *pendhok* makers. By observing the data from a particular kris period (*tangguh*) that has been passed down to experts in the field of sheath making (*mranggi*), it can be seen that in Surakarta, the practice of *mranggi* has been discontinued both in the Surakarta palace and also outside the royal court. It is difficult to obtain the specific context of the birth of various types of *pendhok* in the early tradition of the palace. Hence, the observation shifts to *mranggi* outside the palace to discover the breaking point and/or the shift in knowledge about *pendhok*.

In the case of Kustanto, as a member of the third generation of *mranggi* outside the royal court, his *pendhok* follow the traditional rules and display similarities in shape, size and technique to those of the palace. Some of the more common techniques used are *cukitan* and *wudulan*. However, there are certain colouring techniques from the palace, such as *kemalo*, that are not found outside the palace. The staining techniques used include *sepuh* (chemical-plating) in gold, silver, and copper, and *silih asih* (the use of two colours: gold and silver). The division of labour in the manufacturing process implements a family system: motif (Kustanto) → *mbabar* (brother) → carving (brother) → polishing (brother) → quality control (Kustanto). The technical work which circulates in this family system (of the *mranggi*) is knowledge that is limited only to the family members themselves. This type of labour division in the *mranggi* family was practiced at the time of the royal tradition, both inside and outside the palace.

Through this research, the concept of *pendhok* as an integral part of the kris has been described within the context of the kris as an object and a mode of dress that is found in the Javanese culture, and also in its current context as a collector's item. As a protective part of the kris, the sheath needs to present a strong impression, and should be beautifully decorated. In this way, the *pendhok* attempts to demonstrate conformity with the kris itself: with the sheath, hilt, and *pamor*, according to the customs of Surakarta. Beauty as a value is derived from a combination of artistic activities: quality of workmanship, materials and ornamentation.

The use of various materials such as brass, silver, gold and diamonds, shows the increasing importance of the *pendhok*, especially in terms of taste, creativity, design, and its different manifestations. As Baudrillard states, "objects are carriers of significance in the system of social and cultural hierarchy, at least in the following details: shape, material, colour, durability and arrangement in space; it is certain that they are coded" (Baudrillard 1981). The Surakarta *pendhok* is coded in the form of Javanese imaginary of Mataram–Surakarta using *Tanggung Nom* as its basis with a fixed size and shape, and subsequently developing the sub-style of *Tanggung Surakarta*. In this essay, we see that anthropological colonial research about Java (works of Javanology) provides a description of the subject of Java. It is this knowledge, "prepared" at the end the 19th century by the indigenous Javanese and foreigners alike, which produces evidence of "Java". The subject of "Java", traced back to ancient palace manuscripts, perhaps looked forward to formal Javanological attention. In short, "Java" was a subject that seemed, in effect, to beg for translation (Pemberton 1994).

In this essay, the Surakarta kris is found to have become a representation of "Java" from the perspective of the discipline Javanology, and is constructed in such a way that other subjects such as *pendhok* beg to be explained as something more than just a complement of the kris, because they possess a philosophy or ornaments, which have not been described in previous discourse on Javanology. All of this technical discourse flows towards other discourse (like the metaphor of a river leading to the sea), and as Anderson says, "the soul of a *priyayi* is always ironically present: with a *blangkon* on the head, a tie at the neck, a kris at the waist and a Samsonite briefcase in the hand. Always talking about the glory of Mataram, while dreaming of Amsterdam" (Anderson 1990). The *pendhok* of the Surakarta kris is a separate part of cultural discourse about the Javanese kris whereas in fact its presence has adapted, by itself, to the form of the kris of *Tanggung Nom*, which has survived during various political situations and Islamic tension. The kris has become a "melancholy" object of the visible Java: it is shunned because of its connotations, but is approachable to embrace tradition.

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