The Exploration of a Potential New *Pamor* Pattern

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ABSTRACT

The value of the kris often refers to the patterns created from *pamor. Pamor* is the mixture of alloy which forms a unique pattern that is obtained by welding together wrought iron, nickel and certain kind of metals into one blade. *Pamor* is the most striking and interesting feature in the existence of a kris and one of the Malaysian Heritage that is facing a decline nowadays. This study is to create new *pamor* pattern with its own expression of the art form influenced by its locality, history and cultural diversity. The study focuses on the method of simplification in creating traditional Malaysian *pamor* pattern. The position of *pamor* in art and culture is interrelated to the issues of cultural development in the country. This research explores the preservation of *pamor* as an integral part of the metal and kris as cultural heritage. It also compiles traditional Malaysia *pamor* pattern with their design characteristics that are identified and documented the *pamor* making process. The data collection will then used as the foundation in creating potential new *pamor* patterns and the finding includes the pattern making process and the pattern appears. Qualitative research method is considered appropriate in analysing and viewing the result which will be achieved as it is more meaningful, accurate and rich with significant information (Miles and Huberman, 1994).

Key Words: *Pamor, new pattern, culture and preservation*

INTRODUCTION

Kris is a renowned Malay weapon that symbolizes the strength of one culture and is currently facing gloomy era as the society is moving forward and shows less interest on the heritage that once replicated status and power. The value of the kris often refers to the patterns created from *pamor.* According to Garrett and Brown (2008), *pamor* means to mix, and thus to become one and indeed, in the forging process, *pamor* becomes one with the iron to which it is symbolically “married”.

According to Affandi Al Hadid (2011), *pamor* means in Malay, the mixture of alloy which form a unique pattern that is obtained by welding together wrought iron, nickel and certain kind of metals into one blade. *Pamor* is the most striking and interesting feature in the existence of kris. Each existence has its own purpose to serve the needs of its owner.

The word *pamor* derives from Javanese word which refers not only to the laminated patterns on kris blades but also to the raw materials used to create those pattern-nickelous iron from meteors or the ground, or commercial foundry nickel. *pamor* in Malay language is the term refers to a mixture of pattern formation during forging metal, steel and iron in the kris making process by blacksmith which is known as *"tukang pandai besi*" in Bahasa Melayu.

The uniqueness, attractiveness and mystical value of every kris are portrayed the enchanting *pamor* patterns and characteristics. The design is up to the suitability of the owner or occasion and also the wearer. Nevertheless, *pamor* is now facing the declining period. The society is not familiar and enthusiastic towards traditional heritage and its complicated making process. The kris making industry is heading to dead end due to the fading demand in kris that would also affects the development of *pamor* pattern. According to Kraftangan Malaysia (2010), in Malaysia, only a few kris makers particular the makers of *pamor* remain. Most of the remaining kris makers are from Kelantan, Terengganu and Perak but only a few of them are expert in making pamor pattern.

Basically, the *pamor* pattern can only be found on kris and weapon that use *pamor* as the main material. The *pamor* pattern provides many aesthetical values to the kris that includes the *pamo*r making processes and the materials used. According to Abdul Mazim (2009), a famous Malaysian kris maker from Perak, *pamor* is a pattern that is created from the forged technique using hammer and the fusion of different metals. The metals used are from *paku*/nail, *pahat*/chisel, *payung*/umbrella, *pisau*/knife, *pagar*/gate and *pencebok*/hoe. The patterns created including *pamor kurai, pamor pucuk rebung, pamor tapak gajah, pamor isi petai, pamor beras tumpah, pamor kulit tembikai, pamor sisik ikan, pamor bulu ayam, pamor sisik ular,* and *pamor gigi yu*; which means that there are no limitations of *pamor* today as long as it has the aesthetical understanding besides its usability and functions. Artworks that use *pamor* pattern can give impact, message and meaning to the public as one of the Malay identities.

According to Roslan Nor (2010), *pamor* is one of the heritages that a Malaysian should take pride in and one that everybody should preserve; as the younger generation nowadays do not have the intention to preserve this heritage. Thus, in order to ensure the preservation of this national heritage, the researcher attempts to document the *pamor* making process besides to develop new design for *pamor* pattern that might attract the society to the new pattern and ultimately will increase the demand on the *pamor* and kris.

STATEMENT OF THE PROBLEM

Pamor is the pattern appears on the kris blade and the art of making *pamor* was considered as Malay craft heritage by Kraftangan Malaysia (2010). Kris making is facing a decline and the number of young generation's involvement in this industry is also decreasing (Malaysian Handicrafts Development Corporation, 2010). The decline also influences the development of the *pamor* as it is an important part of the kris. This study explores the ability to create new *pamor* pattern through observation and documentation on the *pamor* making process and also compiles existing *pamor* pattern for references. This study also explores the possibility to utilize the *pamor* in

jewellery as part of the solution in order to preserve the craft heritage from dying so that others can still value and appreciate the *pamor*.

OBJECTIVES

The two main objectives are:

a) To explore and understand the process and characteristic of *pamor* making. The observation will be documented for reference.

b) To explore the possibility of developing new *pamor* pattern.

HISTORY OF *PAMOR*

Early in kris history back in 1600 A.D it was found that if one of the metals contained nickel, the *pamor* bed shows more contrastive design sharpness. Possibly at that time and certainly later nearly all nickelous iron came from the Celebes (Sulawesi) and was termed *pamor luwu*. Iron was often called 'white iron' because being more etching resistant, it left silvery threads on an acid-darkened blade. In the eighteenth century, the first kris blades were made containing nickelous iron from the meteor that had fallen near Prambanan in 1749.

It was reported that the nickel content of *pamor luwu* is 0.4 per cent and *pamor Prambanan* as being 4.7 per cent. However, the present samples show an essay of a 9.4 percentage of nickel. In Nusantara, pattern that appears in kris when blacksmith uses a different types of steel and iron by repeated sequences of hammer. In making pattern of *pamo*r, there are two different ways to obtain the pattern which are planning the intended patterns and by accidental effects.

Figure 1.1: Pamor motifs appears on kris

Mata Keris dan Bentuknya, Dato' Shahnum Yub (2010)

DEFINITION OF *PAMOR*

The word *pamor* comes from the Javanese word “Wor” or “Awor” and it means “mixture”. This exactly describes the manufacturing method of the kris blade: the forging together of various metals using a technique called “pattern welding”. Layers of different metals are pounded and fused together while red hot, fresh from the forge. The layers are pounded, folded, shaped, polished and acid etched to bring out the pattern. The decorative effect in a good *pamor* is beautiful and fascinating.

Pamor in Malay language is the term used to refer to a mixture of pattern formation during forging metal, steel and iron in the making process of kris by *“tukang pandai besi”.* Each *pamor* pattern displays its own unique, attractive and mysterious characteristics. The secret is up to the suitability of the owner / wearer.

PAMOR PATTERN

There are lots of queries on where the patterns and colours derived. *Pamor* pattern created from the metal itself that gives there wonderful patterns and colors. To produce pattern on welded blade, the maker uses a lot of metal combinations. Various added elements in the steels will cause the steels to etch differently.

In order to create *pamor,* most common technique used is forging or in Malay word called ‘menempa’. According to Parkinson (2005), forging is to work hot steel with a hammer in order to modify of refine its shape. He also is explained that forging would sometimes be called drawing down. The most drawn down product are including weapon. The *“Empu”,* a term of respect for kris smiths, is able to influence the pattern of the *pamo*r by twisting, bending, turning and eventually drilling into the iron bar. Each step is followed by welding. The final shape is brought out by filing and grinding, and washing in a solution of arsenic and lime juice to bring out the final *pamor* pattern. The motif changes into a variety of motifs depending on the use of different materials and forging techniques.

According to Mat Ariffin Sulaiman (2010), various patterns can be created and developed and the only constraint is the exploration. Most of the *pamor* makers prefer existing pattern because they are already familiar with the making process. He also explained that the important measure to create pattern is by manipulating the technique. Instead of over and under forged techniques, it is also best to mix all materials to be used. This way will enable the maker to create a nice and beautiful spontaneous *pamor* pattern.

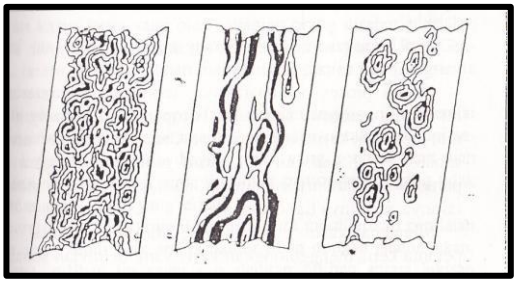


Figure 2.1: Pamor motifs by accident

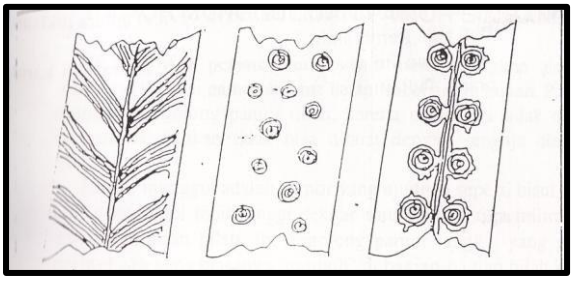


Figure 2.2: Planned pamor motifs

Mata Keris dan Bentuknya, Dato’ Shahnum Yub (2010)

EXISTING *PAMOR* PATTERNS

There are various existing *pamor* pattern that's have been created. The patterns are usually related to our daily life and the surrounding. The maker would always implement belief in their pattern.

Pattern	Malaya Name For The Pattern	English Name For The Pattern
	Ron Pakis or Bulu Ayam	Fern leaf or Feather's
	Ron Duru or Ronkenduru	Genduru leaf
	Eri Wader	
	Naga Kangjeng Kiai	
	Blarak Ngirid	Dragged palm frond
	Ganggeng Kanyut	Floating water plants

	Sekar Tebu	Blossom of ginger flowers
	Beras Wutah or Wos Wutah	Scattered rice grains
	Sumsum Buron	Sequential areas
	Jung Isi Dunya	
	Kulit Semangka or Ngulit Semangka	Watermelon skin

(Ensiklopedi Budaya Nasional, 2011)

Table 1.1: Existing *Pamor* Pattern

METHODOLOGY

This research applies qualitative research methodology which also employs several methods that are relevant to answer the research questions.

Observation

In this research, observation approach was used in order to gather the primary data, creating discussions as well as observing the process of making *pamor.* The documentation of the primary data includes the usage of visual and audio recording of the respondents. The observations took place around Pasir Mas, Bachok, Kota Bharu, Kelantan and Kuala Kangsar, Perak. The observations on *pamor* makers or experts are focused on the *pamor* making process and to better understand the flows.

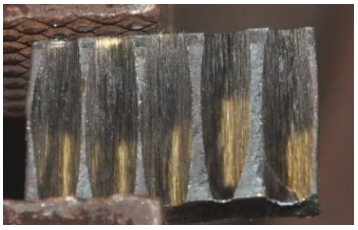
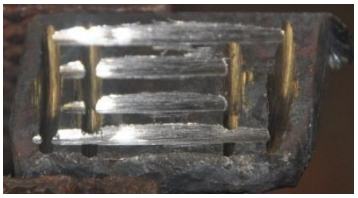
Exploratory Method

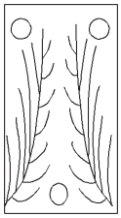
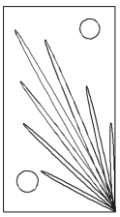
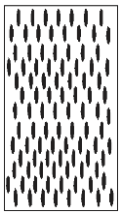
Exploratory method was applied to achieve result for the second objective, which is to find the possibility to create a new *pamor* pattern. According to Joppe (2006), exploratory method is preferred by researchers when the problem statement and research scope are not yet clear, which allows the researcher to find out about the problem and the concept that is to be studied so that an accurate result can be obtained. The research was conducted through the process of trial and error as it is a major component of an exploratory method. The method also allows the ability to explore the materials characteristic, techniques, and patterns.

The Exploration of New Pattern

At this stage, the researcher will use five *pamor* materials. The researcher also limits his sampling of new pattern to only 20 patterns. The sampling size is 1" x 1" plate. The step-by-step process will only limit to four selected patterns.

Pattern Ideation and Development

IDEATION	TRANSFER	RESULT	NOTE
			Name: ***Pamor* Butir Petai** Corrasive subtance: **Nitric Asid**
			Name: ***Pamor* Contour** Corrasive subtance: **Nitric Asid**
			Name: ***Pamor* Ketuat** Corrasive subtance: **Nitric Asid**

			Name: ***Pamor* Cross Etching** Corrasive subtance: **Nitric Asid**
			Name: ***Pamor* Tulip** Corrasive subtance: **Nitric Asid**
			Name: ***Pamor* Daun Pinang** Corrasive subtance: **Nitric Asid**
			Name: ***Pamor* Splash** Corrasive subtance: **Nitric Asid**
			Name: ***Pamor* Air Hujan** Corrasive subtance: **Nitric Asid**
			Name: ***Pamor* Dam** Corrasive subtance: **Nitric Asid**

(Azhar A Aziz, 2012)

Table 1.2: The material: zinc, tin can, nail, carbon steel and umbrella are collected and then being tied together for laminating process

CONCLUSION

This research is one of the new researches and can be further developed in the future for other new findings to be discovered. Based on the new findings in this research, the application of *pamor* in innovation design was successful and can be developed further in reproduction process, technique and types of material that have been used.

As a new research, the potential to enhance and improve the research in depth should be continued and explored further in terms of industrialised, high technology and sustainable design to reflect the modern and contemporary world.

RECOMMENDATION

A research on this topic is new in Malaysia. Thus, the awareness and issues of *pamor* should be highlighted and get the attention from the government, in corporation with Malaysia Handicraft, "*Kementerian Kebudayaan dan Pelancongan Malaysia"*, experts (craftsman, kris maker, and smith) and the professionals in Malaysia. This is a vital issue that can be discussed in our country regarding the preservation of arts and heritage. This research has strong potential to be exposed, because it involves the users like public people, craftsman and kris maker.

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