

# Integration of Metal Materials and Semarang Batik Motifs into the Design of Tableware

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## ABSTRACT

Technological progress goes hand in hand with the development of human civilization. One of the results of human civilization is tableware, namely coasters. This article will describe the design of coasters with the Semarang Batik motifs application, namely Warak Ngendog, as a result of acculturation of Javanese, Chinese, and Arabic cultures through the depiction of mythological animals as symbols of harmony according to Semarang people beliefs. The primary material used is copper metal combined with wood. Combining this material was chosen because it can fulfill the value of the function and aesthetics. The research method is descriptive experimental through laser cutting and forging techniques on copper metal, identification, and structured documentation. The result of this experiment is a set of coasters with the Warak Ngendog motif.

**Keywords:** *Batik Semarang, Coaster, Tableware, Warak Ngendog*

## 1. INTRODUCTION

Indonesian batik can be classified into palace batik and coastal batik. Examples of palace batik include Jogja Batik and Solo Batik. What is meant by coastal batik is batik in the northern coastal areas of Java Island, one of which is Semarang batik. Coastal batik has variations in terms of colors and motifs due to the entry of foreign influences from ancient traders, especially since the presence of Islam in the 16th century. The encounters of coastal communities with various nationalities such as China, the Netherlands, Arabs, Asians, Malays, and Japanese have also colored the dynamics of designs and patterns in the art of batik on the north coast of Java [1].

Semarang, a port city on the north coast of Java, was once an important trading center in Indonesia. This makes Semarang rich in cultural acculturation, one of which is found in batik motifs resulting from a combination of coastal batik with immigrant cultures, namely Chinese and Arabic. As a coastal batik, Semarang Batik has the characteristics of natural motifs and natural shapes. The decorative motif in batik is an expression, the imagination of an individual or group that expresses the state of oneself and the creator's environment through the depiction of ideas, meanings, and feelings. The concept of the Semarang Batik motif was born by the creative ideas of the artisans and is related to the culture in Semarang, such as pictures of traditional houses, mosques, plants, animals, and some reliefs found in the city of Semarang. The colors in Batik Semarang result

from a combination of Chinese, Indonesian, and Dutch cultures [1].

In addition to batik as one of the cultural treasures of the Indonesian nation, there are also metal crafts which are the strength of the Indonesian handicraft industry at the international level [2]. Many Indonesian metal crafts such as accessories, gamelan, jewelry, and household appliances can be found at the international handicraft industry exhibition, namely INACRAFT or the International Handicraft Trade Fair held in Jakarta every year. This exhibition has been regularly held since April 1999 which was initiated by ASEPHI (Association of Indonesian Handicraft Exporters and Manufacturers). Holding INACRAFT regularly proves that the metal craft industry could be developed and has potential business prospects. The metal craft industry could become one of the exciting handicrafts and has business prospects in the future. Finishing innovations in the handicraft industry, especially metal, have an essential role because a good and attractive finishing will increase the value of beauty (decoration) add protection that can increase the durability of the basic materials of the craft itself. The final value of the resulting product can be attractive to consumers.

The lack of information about the metal craft industry is one of the backgrounds for this research. This research was carried out by making several efforts to collect data, document, experiment, and publish them scientifically. Laser cutting and forging techniques on metal are carried out as one of the experiments in the manufacture of coasters that combine copper and wood metal materials

so that the results of an eclectic, classy, and unique design are obtained. Therefore, this study will describe the experimental results of copper metal into a set of coaster products by applying the Warak Ngendog motif from Batik Semarang.

## 2. METHODS

The method used in this research is descriptive experimental, which is divided into several stages, namely: Phase I, a literature study on tableware and decoration motifs in general as an experimental reference for applying batik motifs to metal; Phase II, a literature study on Batik Semarang and lifestyle as a recommendation for tableware design [3]; Phase III, copper metal experiments with laser cutting and forging techniques; Phase IV, analysis and explanation between design concepts in research based on the stages that have been carried out.



**Figure 1.** The primary motifs of Warak Ngendog to be applied to the coasters design

In the context of Semarang as an urban city, the most robust representation of various forms of hybrid cultural expression in Semarang City is the meeting of Javanese culture with Islamic culture. On the other hand, the people of Semarang have a cultural heritage as a trading community so this behavior can be seen in everyday life. The behavior of the merchant community may come from the coastal environment influenced by the teachings of Islam, namely not discriminating in degrees or egalitarianism, having equal or equal character, being able to accept culture from wherever it comes. The city of Semarang is a metropolitan city with various ethnicities, so it affects the religious characteristics of the pluralist urban community in Semarang. The tendency of pluralism has developed since the city of Semarang was

founded by Ki Ageng Pandanaran about 469 years ago. Cultural pluralism and heterogeneity of Semarang society have encouraged the growth of acculturation of two or more cultures from different ethnicities to give birth to new cultural entities [4].

One of the results of cultural acculturation in Semarang is folklore and being a mascot, which is quite well known and is one of the decorative motifs of Semarang batik, namely Warak Ngendog. The folklore element in Batik Semarang is what distinguishes Batik Semarang from another coastal batik on the North Coast of Java because it can be converted into an image that tells a story [5] [6].

Warak Ngendog comes from two words; namely, Warak comes from Arabic. "WaraI" means holy, and the word ngendog means laying eggs. Warak is a symbol of humans who must be good at guarding themselves against lust and disgraceful acts, one of which is implemented through the practice of fasting. At the same time, eggs symbolize the reward for good deeds done by humans. Therefore, the term Warak Ngendog was created.

Warak, by Semarang's people, is considered a sacred mythological animal because it is a combination of several animals that represent certain ethnicities in it. The body, legs, and tail of the warak animal have the characteristics of a goat (Javanese ethnicity), the head shows the characteristics of a dragon animal (Chinese ethnicity), and the neck of the warak itself displays the characteristics of a camel animal (Arab ethnicity). Warak Ngendog is one of the people's parties that Semarang residents look forward to, especially every month of Sa'ban in the Javanese calendar or ahead of the Dugderan celebration to welcome the month of Ramadan. The Dugderan celebration itself is held in the middle of the square around the Great Mosque of Semarang (close to Johar Market before being relocated), which is also the center of multiethnic Javanese, Arabic, and Chinese activities in Semarang City [4] [7].

The meaning of the Warak Ngendog philosophy is that the warak's head with a gaping mouth symbolizes humans who tend to be greedy and can destroy indiscriminately. Then the body with an upright tail symbolizes the human desire to guard and leave evil deeds. While the colorful but different feathers on the abdomen symbolize that humans must take care of themselves with the sincerity of fasting. The inverted fur of Warak Ngendog itself also symbolizes that humans must reverse their worldly affairs towards the hereafter (spiritual) [7].

Tables 1 and 2 below are the summary results from previous studies that have been analyzed and interpreted by the research team [8].

**Table 1.** Changes in Interpretation of Warak Ngendog

Description	Anatomy	Meaning
Dragon (Chinese)	Head [old] → Body (scales) and tail [new]	The symbol of human nature which tends to be greedy and destroys indiscriminately
Goat (Javanese)	Body parts, legs, tail [old] → Horn parts on head, legs [new]	The symbol of the human desire to keep and leave evil deeds must be able to take care of oneself with sincerity in fasting (Kejawen)
Camel (Arab)	Neck [old] → Head (face structure), body (hump) [new]	The symbol of the beginning of the month of Ramadan/human fasting must be able to reverse the worldly affairs of oneself towards the hereafter (spiritual)



**Figure 1.** Changes in Interpretation of the Warak Ngendog Image

Based on the two tables regarding the interpretation of Warak Ngendog above, the design results for coasters are obtained based on certain stylized forms from existing motifs. The decorative elements contained in the Warak Ngendog motif, as shown in Figure 1 above, consist of several types of motifs as follows:

- The fauna element is shown from the Warak motif, a combination of three animals with different cultural backgrounds: dragons, camels, and goats.
- Flora elements are displayed with several flowers, plant vines, and leaves motifs. Some of the existing flora elements were adapted from the existing Semarang Batik ornaments.
- Figurative elements, no figurative elements are used because Warak Ngendog is a form of cultural acculturation, one of which is Islamic culture (represented by camels), so those figurative elements are avoided to be applied in making motifs.
- Geometric elements this element is a form of repetition that is commonly found in batik ornaments and carvings. The use of geometric shapes is refined to no more extended display angular or rigid shapes, and a stylized version is made in the form of lines or curved shapes.

Thus, in creating the Warak Ngendog motif as the primary reference basis for making coasters designs.

Based on the Warak Ngendog motif shown in Figure 1 above, the next step is to narrow the focus of the existing motif, namely the Warak animal figure used as a coaster design idea.

Based on the description of the tableware inspired by the Warak Ngendog motif above, the application of decorative motifs or batik motifs can not only be made on a piece of cloth. This can be proven by designing a set of coasters made of brass and copper combined with wood as a heat insulator to produce an eclectic nuanced product [9].

As early as 3000 BC, brass metal was discovered by ancient metal craftsmen in Syria/Turkey. Brass is an alloy of copper and zinc. Therefore, brass has resistance and strength properties from its constituent material, namely zinc. This character also affects the properties of brass, which is very easy to apply to various shapes and is a good conductor of heat [10] [13].

Meanwhile, copper metal has unique characters and characteristics compared to other metals, namely yellow with a slight reddish impression, tends to conduct heat or is a good conductor, soft and easy to shape or forge so that it often becomes material for handicraft products and tends to be non-reactive so it has rust resistance [11].

### 3. RESULT AND DISCUSSION

Based on the background that has been described, the results of the laser cutting and forging technique [13] experiments on metal are obtained as follows:



**Figure 2.** The Warak Ngendog motifs were tested on brass (left) and copper (right)

Figure 2 above is the coaster design resulting from the Warak Ngendog motif. The coaster design was tested on two types of metal, namely copper and brass, because of the unique characteristics displayed by the colors of the two metals themselves. The diameter of the coasters is made of sengon wood, measuring 10 centimeters. Wood material shares 50% of the overall design because it is intended as an insulator or heat barrier function. In contrast, the Warak Ngendog motif has a 50% portion made of metal as an aesthetic element that can display a modern, luxurious, and dramatic impression.

Brass metal can give a modern and luxurious impression and is suitable for formal situations. This is because the color of brass resembles the color of gold, so it is considered suitable for use in family banquets and other formal occasions. An example of its use is shown in Figure 9 below.



**Figure 3.** Examples of using Warak Ngendog coaster informal events

While coasters with copper metal have a more straightforward function and are more stylish for young people, the impression of copper can also give a strong industrialist impression as it is currently being favored by most people [12].

Based on the description of the tableware coasters with the inspiration of the Warak Ngendog motif above, it can thus prove that decorative motifs or batik motifs can not only be done on a piece of cloth. Furthermore, the design of the coasters with the Warak Ngendog concept as a wealth of folklore and cultural acculturation in Semarang Batik into a product for everyday use is also expected to be developed [14] later to enrich the treasures of unique and modern ethnic tableware designs as the research team has done.

### 4. CONCLUSION

The wealth of decorative or batik motifs in Indonesia is prosperous and diverse. Coastal Batik is rich in elements of cultural acculturation to have particular meanings in it. One of these coastal batiks is Batik Semarang, which has two prominent motifs: classic batik from the past and contemporary modern batik. Most contemporary Semarang batik has folklore or folklore values representing a particular area or place, landscape or historical buildings, traditional food, and elements of mythology. One of the folklores known by the people of Semarang City is the figure of Warak Ngendog, which is usually used as a procession in the Dugderan folk festival in Semarang City.

Warak Ngendog is a mythological animal figure depicted as a symbol of inter-ethnic harmony in Semarang, namely the Chinese (dragon), Javanese (goat) ethnicity, and Arab ethnicity or Islamic culture (camel). The decorative designs or motifs of Warak Ngendog are very varied and are reinterpreted into a motif by adjusting the interpretation of the image to produce a new figure shape.

Image Warak Ngendog has a level of complexity and is very detailed, so adjustments need to be made when applied to a tableware design, in this case, coasters.

Thus, the experimental results and the design of the coasters with the Warak Ngendog concept have the potential to be further developed so that later they can enrich the treasures of eclectic concept tableware designs in Indonesia. In addition, it does not rule out the existence of collaborations that can be carried out between the research team and the industry and ASEPHI (Association of Exporters and Manufacturers of Indonesian Handicrafts) in the future.

## ACKNOWLEDGMENT

This work was supported by the Research and Community Service Institute (LPPM) Universitas Kristen Maranatha and the PKK (Program Kompetensi Kampus Merdeka) 2021 grant of Interior Design, Faculty of Arts and Design, Universitas Kristen Maranatha.

## REFERENCES

- [1] D. Yuliati, "Mengungkap Sejarah dan Motif Batik Semarang", (Badan Penerbit Universitas Diponegoro Press, Semarang, 2009).
- [2] T. Haryono, "Logam dan Peradaban Manusia", (Philosophy Press, Yogyakarta, 2001).
- [3] J. W. Creswell, *Penelitian Kualitatif dan Desain Riset*. Yogyakarta: Pustaka Pelajar, 2014.
- [4] Cahyono, "Warak Ngendog dalam Tradisi Dugderan Sebagai Representasi Identitas Muslim Urban di Kota Semarang", *Jurnal Theologia*, 29(2), 339-362, 2018. DOI: <http://dx.doi.org/10.21580/teo.2018.29.2.2937>.
- [5] D.I. Aryani, "Semarang's Batik Folklore and Its Application in Contemporary Fashion", in *2019 International Conference, The Korean Society of Costume*, 57-66.
- [6] P. Tabrani, "Proses Kreasi-Gambar Anak-Proses Belajar", (Erlangga, Jakarta, 2014).
- [7] U. Hasanah, "Arak-Arakan Simbol Warak Ngendog Sebagai Media Dakwah", *Al-I'lam: Jurnal Komunikasi dan Penyiaran Islam*, 3(1), 55-66, 2019. DOI: 10.31764/jail.v3i1.1367.
- [8] D.I. Aryani, A. Pandanwangi, & I. Z. Effendi, "Multiculturalism of Mythological Images in Batik Motifs, Case Study: Paksi Naga Liman and Warak Ngendog", in *Proceedings of the 2nd Annual Conference on Blended Learning, Educational Technology and Innovation (ACBLETI 2020), Advances in Social Science, Education and Humanities Research Vol.560*, 514-519.
- [9] A. S. Wargadinata. "Peranan Logam sebagai Material pada Desain Produk dan Desain Interior", *Jurnal Dimensi Seni Rupa dan Desain*, 3(2), 226-239, 2006.
- [10] Admin, "Logam Kuningan: Karakteristik dan sejarahnya", *Teknik Jaya*, 11 October 2020. Available at: <https://teknikjaya.co.id/logam-kuningan/> [accessed on 12 November 2021].
- [11] Yosua Erick, "Pengertian Tembaga: Unsur, Sifat, Warna, Manfaat, Kegunaan", *Stella Maris College*, 16 August 2021. Available at: <https://stellamariscollege.org/tembaga/> [accessed on 12 November 2021].
- [12] H. Musfiroh. "Kajian Komparatif Perancangan dan Produksi Peralatan Saji (Studi Kasus CV Estetika Indonesia)", *Productum: Jurnal Desain Produk (Pengetahuan dan Perancangan Produk)*, 3(8), 261-268, 2020. DOI: 10.24821/productum.v3i8.3326.
- [13] Heru Sri Kumoro, "Macam-macam Teknik Kriya Logam", *Kompas*, 3 December 2020. Available at: <https://www.kompas.com/skola/read/2020/12/03/131500969/macam-macam-teknik-kriya-logam?page=all> [accessed on 12 November 2021].
- [14] A. S. Ningsih, I. C. Angge. "Pengembangan Desain Produk Cenderamata Kerajinan Logam di Aryan Galeri Desa Bejjong Kabupaten Mojokerto", *Jurnal Pendidikan Seni Rupa*, 3(3), 156-162, 2015.