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Development of Majapahit Batik's Design: Digital-Based Creativity Management

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Abstract This article discusses the creative process of Majapahit Batik's design development through the digital-based creativity management. Creativity management offers a new dimension to the development of Majapahit Batik's design in terms of visual, aesthetic practice, and the process of cultivating a digital-based design (computer graphics). In particular, this article will describe how digital-based creativity management can be a model development of Majapahit Batik's design that is more innovative, effective, and suitable for every context of the times.

Keywords Design, Majapahit Batik, Digital

1. Introduction

Majapahit Batik is batik that made by batik artisans in Trowulan, Mojokerto, and surrounding areas that is inspired and reprocessed the results of the cultural art relics of the Majapahit era in terms of visual, philosophy, and cultural values. The existence of Majapahit Batik cannot be separated from the belief that since the days of Majapahit there is already similar cloth like batik. These beliefs can be traced from some notes or evidence that leads to Majapahit Batik. For example, in *Serat Pararaton*, batik has been referred to as clothing material by calling *gringsing* and *ceplok* motifs as decorative batik (Hasanudin, 2001).

So, on the statues of the king's embodiment and the empress of the king of Majapahit art, batik was as a palace dress that had been depicted in the statues (Yudoseputro, 2008: 216). For example, the findings of statues in the *Ngrimbi* temple depicting the figure of Raden Wijaya, the first king of Majapahit (ruled 1294-1309), using a variety of decorative *kawung* fabrics. The decoration on the fabric depicts very detailed lines and points indicating that the technique used to make the fabric is the batik technique.

The traces of batik tradition during the Majapahit period, though still vague, became an important milestone of batik journey in Java. The journey of batik does not stop even though Majapahit collapsed, but the tradition of batik continues to grow and live in the trading centers of the northern coastal areas to Central Java. In fact, according to Veldhuisen (1993), Mataram Kingdom, which was famous for its classical batik tradition also inherited the batik tradition of Majapahit.

Batik Majapahit saved the tremendous potential in the form of historical and artistic wealth as the legacy of Majapahit Kingdom. Majapahit's heritage itself offers different nuances in aesthetic, iconographic, symbolic, and visual styles (Kieven, 2014). Although there are many opportunities for the Batik Majapahit development, but it stagnated in the creation of creative batik motifs. One of the causes of stagnancy is due to lack of creative innovation of Majapahit Batik motif in terms of visual, aesthetic, and creative process cultivating artwork in the form of design. Craftsmen of Majapahit batik does not dare enough to explore new contemporary motifs that can also show the history and characteristic of Majapahit Batik (Setyawan et al., 2013). Though batik's motif becomes an important and decisive element because of the motif will be known whether a batik has a "spirit" or not. The motif also shows where a batik comes from (Anshori and Kusrianto, 2011).

This article offers the solution for innovation problems of Majapahit Batik motif through the design approach that is by opening new possibilities through visual exploration and dare to break through the conventional boundaries that make Majapahit Batik stagnant. Through this approach Majapahit batik will be more open, dare to make the breakthroughs and contains fresh creativity and up-to-date preference, also dare to do visual experiment through digital processing. This creativity management will be a pioneer for Majapahit batik innovations that fit the contemporary period.

2. Majapahit Batik, Design Development, and Digital-Based Creativity Management.

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The development of Majapahit Batik through the Digital-Based Creativity Management is based on multi-year research that has been done in 2012-2013. The research is to answer the challenges and opportunities to develop Majapahit Batik's design in the era of creative economy. There are two findings in the research that became the foothold of this article. First, Batik Majapahit is batik that in the process of forming itself or in other words still in the process of identity and characteristic finding. In this process, Majapahit Batik craftsmen are open to changes and external influences on batik motifs they are working on. However, they did not realize how the creation of such motifs directs Batik Majapahit increasingly similar to batik-batik from other regions. This is very unfortunate because Majapahit Batik has a distinctive artistic potential that different with traditional batik from other regions. Second, there is stagnation in the creativity of batik design that affects the appearance of batik motif innovation. The cause of Majapahit Batik development due to weak creativity management of Majapahit Batik craftsmen in the process of creative design. This stagnation causes Batik Majapahit craftsmen stagnant in bringing up new contemporary motifs that can show the history and characteristics of Majapahit Batik.

Majapahit Batik Development through the Digital-Based Creativity Management is also based on the problems found by the authors while accompanying craftsmen of Majapahit Batik in batik design training on 2016. The problems that arise revolve around the management of creativity to create innovative Majapahit Batik's design which has the product differentiation and acceptable to a wider market. Considering the issues mentioned above, the offer of a digital-based creativity management solution is essential. There are two reasons why this solution becomes important, first, the digital-based creativity management (via computer graphics) can solve the limitations of Majapahit batik design processing. It considers digital technology offers efficiently processing, engineering, and producing various batik designs also offer easiness of visual processing. Second, the digital-based creativity management in the development of batik design becomes imperative in today's era. Batik is no longer just a matter of textile products in the narrow sense, but batik also involves the problem of creating opportunities, development of ideas, values, identity, practice, and direction of social change, science and technology, to the use of digital media (Pambudy, 2000).

The digital-based creativity management practice is required by Majapahit batik craftsmen in solving the problem of searching new ideas, executing the ideas into batik designs, and to disseminating products through digital channels through social media. The use of digital media also gives advantage to Majapahit Batik craftsmen in working on batik design art that batik design can be reworked, modified more, or changed the pattern to

produce new motifs that are more varied. Other advantages of digital, such as Goode and Townsend, designers and craftspeople will be more open and no longer dwell with conventional visuals yet dare to combine other artistic praxis and even visual experiments through digital processing (Goode and Townsend, 2011). The ideas above become the basis for developing Majapahit Batik's design. The concept offered is the concept of developing innovative design that can bridge the legacy of artistic wealth of Majapahit in the past with the concept and vision of the present era. The concept will underpin the creative process of Batik Majapahit so that batik products are produced as not just as sheets of cloth, but behind the products, through the appearance of the motif, saving the symbolic narratives that can communicate the historical and cultural values of Majapahit heritage.

The history value and distinctiveness aspect of Majapahit batik motifs become an important point in the direction of Majapahit Batik design development. It is based on the fact of development of batik in contemporary era seen batik as a commodity or as a product of economic value. What developed later is the batik lost its original meaning; batik became just a variety of decorative techniques with batik color rhythm. Based on the concept of design development above, visualization of the design adapts the forms of artifacts Majapahit relics such as terracotta, reliefs, and ornaments of Majapahit style that exist in these artifacts. The reason for adapting Majapahit artifacts because these artifacts are rich in visual creation. For example, visual in animal figures, everyday animals such as turtles, elephants, tigers, horses, buffaloes, monkeys, cows, pigs, antelope, goats, dogs, rooster, pigeons, knees, and peacocks and mythological animals such as dragons and *gajahmina* (a combination of elephants and fish). According to Muller (1978) the animal figures in the Majapahit terracotta show a strong localization of rheology, no external influences whether in its form or technique.

Figures of animals, which is taken as a motif are the animals that have unique characteristics of visual display, containing stories, folklore, and certain myths that form the animal. Like *Gajahmina*, *doro parsi*, and *surawina*. *Gajahmina* itself is an animal whose form describes as a combination of fish (body) with elephants (head). The shape of *Gajahmina* can assure us that this animal figure is a fantasy animal, sea creature that for a glimpse is like a dolphin. In Java and Bali these fantasy creatures are better known as elephant fish. The depiction of *Gajahmina* with its mouth open and with detail of the body that is decorated with ornament carvings of lung and flower so that *Gajahmina* is associated with makara in Hindu iconography.

Gajahmina is related to folklore of Sri Tanjung story. This story originated from the early days of the early Majapahit kingdom on the 13th century. This opinion is

based on archaeological evidence that in addition to the story form, the story of Sri Tanjung is also immortalized in the form of reliefs engraved on the walls of Panataran Temple, Bajangratu Gapura, Surawana Temple, and Jabung Temple. The story tells the journey of love of Prince Sidapaksa with Sri Tanjung who was obstructed by the King Praku Sulakrama who also wants Sri Tanjung to be his wife. To achieve his intention, the King slandered Sri Tanjung until Sri Tanjung was killed by Sidapaksa. On the way to the spirit realm (heaven), Sri Tanjung climbed the elephant-fish across the vast river. These are the elephants that form the terracotta of Gajahmina. As noted Damais (2012) some terracotta version of Gajahmina sometimes shows Sri Tanjung sitting on the back of Gajahmina.

Other visuals adapted for design innovation are part of decorative details emblazoned on the Majapahit terracotta. Majapahit's terracotta as the peak of terracotta art archipelago shows the surface cultivation that produces variations of shapes and decorations (Rangkuti, 2001). Majapahit ornamentation itself is famous for its distinctive lung, rhythmic, and featuring complexity in its details. Development of this design also adapted the motif of Surya Majapahit. Surya Majapahit (Matahari Majapahit) is a symbol, which is widely found in the buildings of Majapahit era. Many quantities of Surya Majapahit that is used in the Majapahit makes the archaeologists suspect that Surya Majapahit serves as a symbol of the state of Majapahit. The most common form of Surya Majapahit consists by the images of nine gods and eight beams of sunlight. The circle in the middle featured nine gods of the Hindu *Dewata Nawa Sanga*. The main gods in the center are arranged in an eight-way position of the wind and one in the middle. Middle Position is Shiva, East: Iswara, West: Mahadeva, North: Vishnu, South: Brahma, Northeast: Sambhu, Northwest: Sangkara, Southeast: Mahesora, Southwest: Rudra.

The visual ideas above are visualized into the design of Majapahit Batik motif. Visualization or the formation of the form in this design process becomes an important process because from this process will be seen how the real picture of visual form of the design development plan made (motif, pattern, and decoration). This process relies on the ability to move (to transfer) the process of visual processing that originally still in the form of ideas into something tangible, can be seen. Realizing the form into a real form is done by describing it in two-dimensional media, in the initial sketch.

The first step of visualization is their character sketch from the selected visuals. Sketch of this character is used to solve the problem how to adapt the three-dimensional artifacts into two dimensional images or motifs. Character sketch by simplifying the form through the form of lines (outline) that can represent terracotta figures. Although simple, the character sketches still retain the decorative style that has characterized the art

of archipelago in the past, it is rich in detail and complex. Sketch of this character is important because it will be used to form the motif. The next step is to make a design sketch that showing the plans, ideas, ideas, and visual exploration that will be made. This design sketch (as a means of the work plan) becomes a paved path to enter the next creative process of processing the character's motif into the batik design composition.

The development of this design does not leave the concept of batik tradition composition that cultivates regularity, repetition of motifs or motif elements, and directs attention centered on the image on the surface of the fabric. The composition of tradition is maintained so that the created design is not too far-out of the batik character. In addition, the composition of the tradition is chosen to get a certain rhythm in order to create the impression or illusion of the design direction that made the impression of motion, dynamics, and will give the illusion a view, of a particular direction and angle. The composition of tradition also describes order, stability, neatness, and tranquility. With the composition of the tradition, the direction of batik design development is not just to show the nuances of tradition that underlies the work but also cultivate the visuals of the past through the adaptation of terracotta figures. The result of the development of this design is a combination of tradition with the modern, establishment of tradition with the dynamics of individual ideas that more personal, blend the symbols on the past with the visual of the present era.

The technique that generally used to actualize the creation is batik. Technically batik is one of the color rhyme techniques using a blocking media in the form of candles. Candles are etched or scratched onto the surface of the fabric (with the help of canting) by following a patterns or motifs previously drawn. Scratches or candle lines will block dyes from entering or seeping into the fabric during dyeing or coloring. The skill using canting has a distinctive, expressive, and more personalized scratch or line shape. The result of image or motif is more flexible because it is done manually and any repeats or motifs repeated on the same sheet of cloth will never be the same on shape and size. This is the power of batik, each motif has different impressions that create a richer visual illusion. Another uniqueness of the technique of batik is the motif can be seen or enjoyed from both sides of fabric (alternating see-through color), especially on batik that drawn on both sides of the fabric surface.

Another uniqueness of this batik design development is the basis or background on the design is worked out by utilizing the crack effect on candling process. This batik fattening will form some diverse crafted patterns of expressive lines, colliding, and sometimes accumulate in other colors. This is the uniqueness of the cracked batik technique, line inclination and the fattening effect resulting in visual shock (after color dyeing and pelorodan) forming grafism on the surface with irregular

color fragments, colliding, and mixing with expressive lines.

The development of this design is not only prepared for manual work (batik tulis), but also for the execution of visual design (artwork) using a computer. The use of computers to design is for saving the time and energy, also the computer can give a thorough description of the design processing. For once the images to be processed are electronicized into digital data stored in the computer's memory, the image becomes part of an active and sustainable image processing system. The image can be corrected for error, rotated, shifted, resized, and combined with other images. In the design processing, the computer plays a role in composition planning, colors, motifs, repetition alternatives motifs, showing outline of the entire motif that will be bundled on the fabric, to artwork that cannot be done manually.



Image 1: Development of Majapahit Batik Motif Design Gajahmina (left) and Motif Surawina (right). Both of these designs are done by utilizing digital visual processing technology.

3. Conclusion

Majapahit Batik's design development by utilizing digital technology (computer graphics) successfully create batik's motif design that shows unity of traditional values (local value) of Majapahit Batik with the development of science and technology also creativity aspect. Computer part on batik design development not only changes the design material from the surface of the real image to the digital codes. The computer also produces a series of processes that will be done in the production process to get more visible, more real, and can minimize errors in the production process. The note, even though the computer processing is used, but the development of batik design Majapahit still maintain the sensibility and taste of batik in its artwork. Batik's character of the line, cecek, isen, color effects, and candle crunch effects are displayed in the visual design.

The development of design by utilizing digital visualization opens more opportunities for new creation (innovation). This innovation can be a cultural capital and a *genius loci* or Majapahit Batik excellence in the era of creative industries nowadays.

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