

AnSeries Software Utilization for Semarang Batik's Motives in the Improvement of the Batik Industry

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Abstract: The creation of technology-based batik motives is a necessity, demands of production effectiveness, consumer demand, variety of motives is a necessity. Batik production which includes the creation of Semarang batik's motifs is a strategic thing that is relevant to respond to research activities to develop batik production because it contributes positively to the economy of the community. A very fundamental problem is the lack of potential crafters to create innovative new motives that are varied, and dynamic according to consumer interests. The results of this study are the ability of Semarang batik's crafters in creating AnSeries technology-based batik motives so that they can produce massively which directly adds to batik production from the use of the AnSeries as the development and utilization of science and technology for Semarang batik, giving a new understanding of creation motives with the AnSeries program among crafters include young age so that it attracts love of batik while at the same time being oriented towards regenerating Semarang batik development, scientific articles, copyrights, and reports. To achieve these objectives, the research is carried out by literature study, observation, documentation, interviews, experiments, understanding of motifs with AnSeries to Semarang batik's artisans including the embodiment process, creating motifs with AnSeries, followed by analyzing the data; creating motives, registering copyrights; preparing a report.

Keywords: *motive, creation, AnSeries, Semarang batik*

Introduction

The Semarang Batik is a center of the batik's industry located in the east of Semarang, Central Java, precisely in Rejomulyo whose existence needs to be taken into concern in the future sustainability prospects. The Batik's motive has an understanding not only as a beautiful work seen visually but also has the meaning of symbolism as teaching about virtue and a life expectancy in Javanese society. (Kusrianto 2013)

Semarang Batik is a center of the batik industry located in East Semarang, Central Java, precisely in Rejomulyo which is a center of batik crafter. Rejomulyo is a location in mapping batik industry centers that should be taken into account, both the existence and prospects of the future, as well as the people who have jobs as batik crafter. The Semarang batik's motif is very natural, originating from the source of ideas in Semarang. Semarang's cultural characteristics are displayed as such as Tugu Muda, Lawang Sewu, Asem Arang, and there are many other characteristics of Semarang culture that are illustrated in the Semarang batik's motif.

The problems of Semarang batik's artisans are constrained by the lack of innovation in motifs that are still monotonous, the absence of the ability to use software to process and create new batik motives, innovation and creations of batik motif designers need to be inventoried by storing existing works to make time and energy-efficient. According to Tjahjaningsih et al., (2016), Semarang batik motif in the present era still characterizes motifs set in nature, therefore batik craftsmen in Semarang still have a lot of problems that are relatively similar to the problem of craftsmen in

Central Java province, about the weak knowledge of technology (creative technique), innovation and production process.

Batik can be said to have quality if it has philosophical, economic value because the elements of the motive are very dominant and affect consumers or observers of batik. The efforts to develop these potentials require new strategies that are innovative, appropriate and focused on the exploration methods of human resource potential and followed up with the use of AnSeries program technology to facilitate the production process because they can produce a variety of batik motifs that can be mass-produced so that they can contribute positively to the economy of the craftsman, the Semarang batik's entrepreneur.

Recently, the research about batik image recognition have done by computer software and reported. Rangkuti et al. (2014), try to develop the batik image classification system using software Fuzzy Neural Network classifier and wavelet-based feature extraction, showed good result in the normal testing dataset, without rotation and scale variation. Yunari et al. (2014), did the research using software GLCM features and LVQ to classify batik and non-batik fabrics obtained from batik image processing because batik has a specific pattern which is different from other fabrics. Azhar et al. (2015) use software SIFT as a method to research object of batik image, showed that the method is fit to extract local features that can describe the difference of the batik types which have almost same characteristic and study from Nurhaida et al. (2015) indicated that the utilization of its software could be matching the objects of the unique properties of symmetry and repetition in batik patterns.

The AnSeries software is expected to be able to reduce the burden of Semarang batik's craftsmen both in terms of manpower and financially. In creating batik motifs in the AnSeries software in terms of the time it will be faster than manually (AnSeries, 2011: 23) reduce the occurrence of human error and the process of archiving or inventory will be durable if careful in storing the motif. In the process of repeating motifs is facilitated with the icons and formulas that are lightweight and facilitate crafters, so they do not draw motives one by one. It is hoped that the method of creating motifs using the AnSeries is part of efforts to strengthen the national innovation system that produces motifs, easy, innovative, new, varied, mass-produced, and prospective

Method

The research design used in this study is based Rohidi (2011) consists of: the literacy method, the observation method, the documentation method and the interview method. The literacy method is done to obtain the sources to enrich the data to solve the problem of developing batik motifs that are in Semarang Batik village. The observation method is done by performing the initial observation by observing the problems which occurred by the batik's artisans in the Semarang Batik village. The documentation method is done to obtain data, photos and research documents including giving the participant training in creating batik motifs with AnSeries visualized into Semarangan batik product motifs. The interview method is intended to complement and refine the results of data collection through library and observation methods. Interviews were held with informants who were considered capable of providing explanations about the object under study.

Besides data is also obtained through the experiments, the data obtained, especially visual data, were used as the basis for experiments in the creation of batik motifs with AnSeries and then

refined it into batik motif designs that were ready to be realized into batik products. The embodiment of Semarangan batik's motif with AnSeris software into batik products is the next stage. Batik motif designs that have been made are visualized into batik products with written and stamped batik techniques. It followed by the market feasibility test of the results of the study, intending to know consumer interest.

This research uses descriptive analysis to process all data obtained through literacy, interview, observation, and documentation methods. All of the data be analyzed to be used as the basis for creating Semarangan batik motifs with the AnSeries software. Besides that, the market feasibility results and tests are also analyzed descriptively.

Measured Performance Indicators

The measurable indicators of this study are consist of:

- The identification and creation of Semarangan batik which includes: motifs and color characteristics, and sources of motif ideas processed with AnSeris software. The history, structure, shape, and style of art from the Semarangan batik are identified
- Documented batik art and culture based on the creation of motifs with the AnSeries in the form of images or photos, files, and videos.
- The creation of Semarangan batik's motifs by using the AnSeris software that is unique, creative, and innovative based on Semarangan's local wisdom. The design of the motif is accompanied by detailed information, motifs, and measurements that can be used as conditions for obtaining copyright, the publication of national and international scientific journals.

The Prospects and Impact of Benefits

The batik industry currently has an important role, namely as a driver of regional and national economies, employment providers, and contributors to the country's foreign exchange. The national batik industry has comparative and competitive competitiveness in the international market, where Indonesia is the market leader by controlling the world batik market. Batik has also been transformed into various forms of fashion, crafts and home decoration that can touch various levels of society from various age groups, livelihoods at home and abroad.

This research is part of the national strengthening in the field of the craft industry sector, especially batik, where the rotation of the batik industry has been able to move the national economy, able to reduce unemployment and raise Indonesia's name in the arts and culture. Modernization should be designed from upstream to downstream, starting from obtaining raw materials, processing, manufacturing of finished products, packaging, to marketing. That all must be seen and run in one package. The batik industry is one form of creative industry that can drive the national economy.

This research can facilitate the creation of motifs because by using the AnSeries software Semarangan batik's crafter's work system is lighter in creating batik motifs and reduce the burden both in terms of energy and financial. (Adnyana, et al. 2013). The creation of batik motifs using the AnSeries software can reduce production costs without reducing the quality of batik and makes it attractive for beginners, young people to explore batik in a modern way, practical and easy way of

operating. Therefore this software is one of the most successful software products for pattern design and color separation.

When compared with the traditional color separation and design manually, the AnSeries software has clear advantages and the results of this study are very prospective for the batik industry. Furthermore, this research as part of the National strengthening in the craft industry sector especially batik, which has comparative and competitiveness in the international market. consumer. The impact of this research is being able to be an alternative way of creating motives for the effectiveness of time, cost, energy, and the level of interest of industrial and consumer.

Results and Discussion

Analysis of the Development of Batik Motifs in several Batik Crafters

The regional batik can support government programs to eradicate poverty and make a job for batik crafter. The development of batik motifs in batik businesses in the city of Semarang is quite significant. It's can increase the attractiveness of the tourists to visit Semarang, at once it is one of the efforts to preserve and develop batik. Batik is a cultural heritage not because of the batik itself but because of the art in making the batik. It is necessary to perform researches that related to the batik pattern characteristic to support the development of batik cloth in Indonesia. According to Rangkuti, et al. (2015), the occurrence of the problem in claiming the batik culture is partly caused by the lack of awareness of our nation on the importance of the batik culture preservation. To prevent this problem from happening, it is required to have complete documentation on Indonesia's batik. In existing research on Batik image retrieval currently, it is based on color and shape characteristic and only a few research is using shape and texture characteristics.

The batik motifs were developed by the batik crafter themselves who came from their ideas and creativity. Many batik crafters develop batik motifs from various situations, conditions, and the community environment. A batik crafter must have idealism, strong feeling, and the characteristics of a batik business. The batik crafter can use the existing natural environment to be one of the batik motifs, such as the theme 'Nature of Gunungpati' which in the Gunungpati District environment has many fruitful plants such as durian and rambutan. The fruit to be used as a collection of motifs, such as the durian flower motif, rambutan, by mixing and matching motifs of semarangan that had already existed such as Cheng Ho batik motifs, Blekok Bird motifs, and others.

There are ideas of motives that appear suddenly and there are also ideas that flow continuously. The idea of creating motifs comes from small things or simple activities. However, there are still many batik crafters who create their motifs manually. With this background, batik crafter still has difficulty in archiving batik motifs. If the batik motif created using AnSeries software is applied to written batik, it will reduce the burden of repetition when copying the batik pattern onto the fabric, and the repetition system is neater and orderly. Archiving batik motifs works to make the batik crafters' time effective in the batik process. The development of batik motifs is now increasingly progressive meaning that batik crafter can increase their creativity to advance batik. Borshalina (2015) proved that the market orientation of Batik Trusmi in the district of Cirebon was influenced by the innovation from batik's crafter which satisfied and fulfilled consumer's requirements which the trend recently is back to nature, therefore the crafter should developing new products using natural coloring materials.

According to several batik's crafter, the use of computer software (AnSeries) can spur young people to preserve and develop batik. The younger generation can develop their ideas through computers and enjoy the development of batik. Batik crafters have carried out training and learning about batik to the community. In terms of time, the creation of batik motifs using computer software (AnSeries) is expected to be able to streamline the acceleration of the batik motif creation process. According to Margried (2015), the technology of batik software has improved productivity through the creation of new batik designs and provides an opportunity to express the creativity through design creation, it's also proved that technology has changed our way of creating batik pattern, and bridging the gap between younger and an older generation in preserving batik tradition.

Description of Batik Motif Creation using the AnSeries Software by designers AnSeries Digital Batik Motif

The use of computers as a tool to facilitate work compared to those who still use the manual system. The use of computer software (software) can help in creating batik motifs. Recently, in the textile industry, the design process has been done by a computer. The designers are very optimistic that using a software program will give maximum results from the aspects of time, energy, cost.

There are many computer software that can be used to create the motifs, digitalizing the image or manipulate the design. Robertson T., Allen J. (2013) research showed that with the use of software like CAD, textile designers are able to visualize the final product of their

design without the need of producing it in physical form. The designer only scans the samples, feed it into the computer and then use the cad software to edit it so as to produce an appealing final result. Rahayuda, I (2015) research to classifying kain Endek (Balinese traditional weft ikat fabric) showed that Digital image software like GLCM can be performed based on the features of each image. Image classification process can be done by using image features such as color, shape, and texture of the image.

The activity of drawing motifs on batik which are generally done manually on paper media can now be done using a computer using various software for drawings, such as Macromedia Freehand, Paint, CorelDRAW, Adobe Photoshop, and AnSeries. AnSeries is a software used for tracing (broken colors) in the textile printing industry. It can also be used for the design process (textiles).

Motif designers create various motifs using AnSeries software that can produce a variety of products, whether batik or batik cloth or printed batik. They created batik motifs through AnSeries software for customers with various requests. However, in the process, they are still experiencing problems, such as transform images. The AnSeries software has advantages and disadvantages. The advantages includes: *Software AnSeries* has a simple appearance and a fast installation and operation process, *Software AnSeries* has a repeat display that is seen immediately, *Tools pada Software AnSeries* easy to operate for *isen-isen* makers, *Software AnSeries* has a feature for working batik half steps (flip). Meanwhile the lackness includes: *Software AnSeries* has an old-fashioned look, *Software AnSeries* has a limited color, The pixels in the resulting image are prone to rupture if the image is resized (*transform*).

AnSeries software is a special textile program recommended by textile companies. The process of creating motifs is carried out easily, and lightly. The menu on this software is easy to use and has been prepared and adjusted to the needs of the designer's motives. Batik motifs can be modeled and

designed using various existing software, one of them is using AnSeries software. It sounds uncommon to batik artisans to unite the art of batik with technology. But it turns out this collaboration can help ease the process, particularly of repeating the motif on batik. From the results of observations made by researchers, this software is simpler and lighter. Batik motifs developed using AnSeries software are expected to be combined with traditional processes.

The Batik’s Motif

Based on the results of the training on the creation of motifs with the AnSeries program, the researchers saw the potential of the craftsmen from both the skill and the work of the motifs created to be selected. Syakir and Tohir (2017) said that the batik is a form of visual art on textile materials produced using traditional drawing techniques originating from Indonesia. Batik is a traditional cloth integral to their cultural identity, especially for Javanese people. Visual on the ornament of batik cloths illustrate the lives sayings and values upon which the life of the community is laid. Dunn, Jessica Lea (2016) research showed that from birth, when a newborn is swaddled in cloth, until the twilight years, life is wrapped in batik in Java. A story starts from the meaning that batik retains within everyday village life and community rituals, being passed down from grandmother to mother to daughter, as a secondary occupation, a source of pride and a lesson in patience. Haron et al. (2014) said that in Malaysia, the selection of the motives usually based on the close relationship between Malay people and their environment formerly flora, fauna even cosmos. They treat the environment as their basic needs in their lives for food, medicine, culture and customs, arts, clothes, education, agriculture, merchandise and even belief.

Some examples of AnSeries file motifs before printing and transferred to cloth for batik are shown with the figure below:

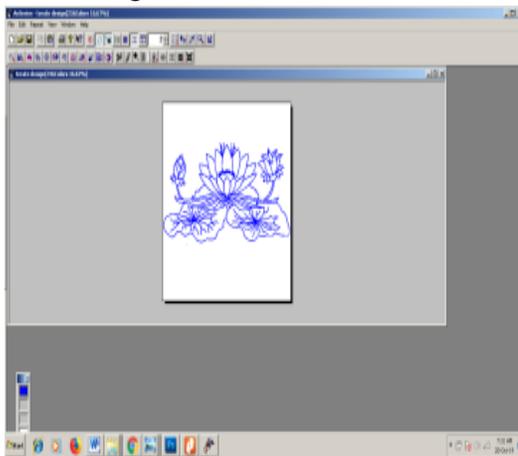


Figure 1. The printing process of the AnSeries lotus motif (by Anugrah Pujo H)

Figure 2. The process of transferring motifs on fabric



Figure 3. The process of coloring lotus flowers



Figure 4. The results of lotus flower batik

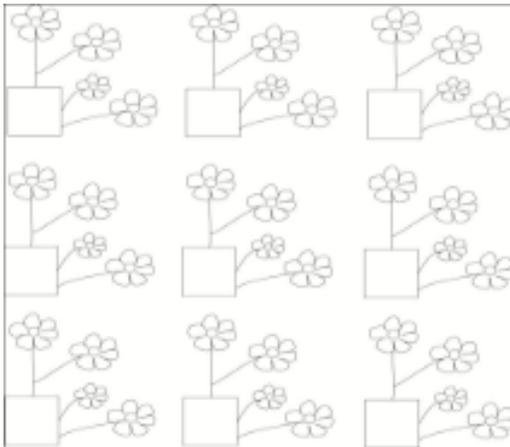


Figure 5. The motif has been traced on tracing paper



Figure 6. The results of frangipani batik

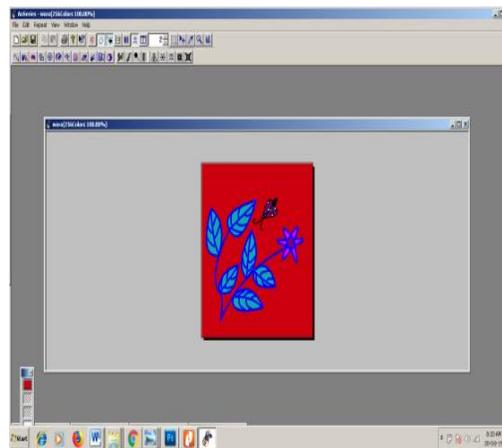


Figure 7. The Jasmine

Figure 1-4 illustrates the process of making the batik motifs using AnSeries software that is applied to the fabric as an example. The Batik Motif of "Lotus Harmony" is a batik with the basic idea of a lotus flower, because of its admiration for the beauty of this flower. The lotus flower also has a philosophy of Sanskrit that is for enlightenment, purity, perfection, and peace. The aesthetic value contained adds to the beauty and beauty of this flower, so that many people like it.

Figure 5-6 shows the process of making frangipani flower batik motifs. This batik motif exposing the beauty elements of frangipani flowers. This flower has a beautiful color and the composition of each petal is very elegant. In the dominant Javanese community, frangipani flowers are considered sacred even in certain areas only grow in tombs, this can remind us that a journey of life finally faces an event that cannot be denied and its nature is certain. This motif will easily to be accepted by consumers, also make a positive contribution and add to the collection of batik motifs in the batik village of Semarang

Figure 7 is the concept of making the jasmine batik motif using AnSeries software. The flower is one of the national flowers. This is preferred because it has a very specific and specific fragrance and a clean white color. Jasmine flowers are often found in the environment around Javanese people symbolizing the purity of soul and beauty. In a variety of traditional Javanese cultural activities, this flower is widely used as a means of supporting that must exist.

Conclusion

Batik has experienced various developments and increasingly modern. In an age of sophisticated technology, computer technology can help preserve Batik. One of them is with the development of the creation of batik motifs. If the method of creating batik motifs is to use a pencil and paper. Recently, the method of creating batik motifs can be easily made using various software with a variety. The creation of batik motifs using AnSeries software is an effort to take advantage of technological developments. In its development, batik motifs were created with various intentions and hopes that were realized through technology. The AnSeries software is able to help batik motif designers in realizing their ideas and ideas as well as being able to realize batik motifs, both classic, modern and contemporary motifs. Sources of ideas come from self-inspiration, existing sources, cultural heritage, the natural environment, and also customer orders, and can improve the economy of Semarang batik artisans. The batik's crafter can develop batik motifs/designs according to the needs. Meanwhile, to realize the batik motif using AnSeries software must consider the outline of the motif and adjust the size of the canting or other tools in the production process. Furthermore, is required some events like exhibitions, joint fashion events between villages, crafters, observers, and the government from the creation of AnSeries batik program to be better known and developed. The use of AnSeries also needs to be socialized and applied in the preparation of curricula in vocational schools, especially those engaged in fashion, so that the next generation is accustomed to and understands the use of this program in designing for fashion making

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