

# Creation the Batik Motif of Mojokerto Style Based on the Majapahit's Temple Reliefs as Local Wisdom

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## Abstract

Mojokerto is a city where various temples as relics of the Majapahit kingdom located. Each is equipped with reliefs of the temple consist of a depiction of a character or merely as decoration. In addition for being able to arouse the aesthetic sense of beauty, temple reliefs as visual capital that can be a source of inspiration in the development of local craft in Mojokerto. Study in this area focus on the effort to create a characteristic batik motif based on temple reliefs in Mojokerto. This research was meant to solve problems related to the creation of the batik of Mojokerto style. This paper consists of three parts. First, it discusses about the temple reliefs. Second, it discusses the elements of decoration on the temple reliefs as inspired base for creation the motif of Mojokerto batik. And finally, it discusses the process of designing the Mojokerto motif.

**Keywords :** Mojokerto, Majapahit, reliefs, temples, motif, and batik.

## 1. Introduction

Mojokerto is one of the 38 cities in East Java. Mojokerto region includes the Districts of Jatirejo, Gondang, Pacet, Trawas, Ngoro, Pungging, Kutorejo, Mojosari, Bangsal, Mojoanyar, Dlanggu, Puri, Trowulan, Sooko, Dedek, Kemlagi, Jetis, and Dawarblandong. One of the most popular district is Trowulan. Trowulan, which is located in the valley of the Brantas river (Robson, 198) in the past is the center of the capital of Majapahit kingdom (Dumarçay, 1988).

As the site of the Majapahit kingdom, Mojokerto has many heritages in the form of temples, pools, and tombs. In addition, Mojokerto is also known for its fertile soil which produces sugar cane, coffee, tea (Nasution, 2012), weaving mills (Austin, 1998), and also as a place where President Soekarno was undergoing his childhood (Wongkaren, 2007).

Trowulan as the Majapahit capital has argueably become the most widely legacy sites. Nowadays, District Trowulan has a lot of temples for instance *Bajang Ratu*, *Menak Jinggo*, *Kedaton*, *Candi Tikus*, *Wringin Lawang*, *Bejjjong*, and *Gentong*. Bangkal and Jedong temples are located in District Ngoro. Central Kesiman temple located in District Pacet. Kendalisodo and Jolotundo temples located in District Trawas. In addition, there is also *Segaran* pool, site of Long Tomb (*Makam Panjang*), site of tomb Princess *Cempa*, site of tomb *Troloyo*, and *Pendapa Agung*.

Mojokerto has art, culture, and diverse traditions (Taufik and Wandini, 2012). In the field of arts, art crafts are scattered in several villages in Mojokerto. Cast brass handicraft located in the Trowulan and Bejjjong village (district Trowulan), craft statue in the Watesumpak village (district Trowulan), terracotta craft in the Bejjjong village (district Trowulan), shoes, purses, and handbags crafts in the Wringinrejo, Japan, Karang Kedawang, Jampirogo, Sambiroto, and Sooko villages. The same craft are located in Pakis village (district Trowulan), Tunggal Pager village (district Pungging), Balongmojo and Medali village (district Puri), Mojorejo and Banjarsari village (district Jetis), Jampirogo and Kedung Maling village (district Sooko), Tulang Pager and Sekargadung village (district Pungging). Silver crafts are located in Batankrajan village (district Gedeg) and Mojodadi village (district Kemlagi). Bamboo crafts are in Karang Kuntan and Bening village (district Gondang), Mojopilang village (district Kemlagi), Gunung village (district Dawarblandong), Mojorejo village (district Jetis), and Domas and Kejagan village (district Trowulan).

In addition, Mojokerto also has batik craft centers. There are "Batik Ali" at Jl. Suratan Gg.4 Kranggan which is managed by H. Ali Kashan; "Batik Sofia" is managed by Sofia at Jl. Mojopahit, Suratan Gg. Tengah; "Erna Batik" is managed by Erna at Jl. Suradinawan, Gg. 2 Mojokerto; "Negi Batik" at Jl. Gajah Mada, Dinoyo village, distric Jatirejo, is managed by Heni Yunina; "Batik Center Mojopahit" at Jl. KA Basuni, Sooko village, is managed by H. Ikfina Fahmawati, and "LIB Collection" at Jl. KA Basuni, Sooko village, which is managed by Lilib Qolibab. The focus on vocabulary of work and variance of creations, a general idea showed that the handicraft development which has been done by craftman in Mojokerto, sources from Majapahit art style. Majapahit supremacy in the field of art and culture is a source of inspiration for artists in their creativity at a later time (Mulyana, 1965). Similarly, the growing crafts in Mojokerto lately. A variety of craft products such as stone sculpture (statue), metal handicrafts, terracotta handicrafts and batik presents Majapahit art style.

In the field of batik, a characteristic that distinguishes between batik from one region to another is the color and motif. Dark colors (*Soga*) and "monochromatic" colors are common in batik from hinterland, while bright and "polychromatic" colors are usual in batik from coastal areas. Abstract-shaped motif is characteristic of batik from hinterland, while naturalist and realist-shaped motif common in batik from coastal areas. This paper discusses what can be used as a typical characteristic of batik Mojokerto? When the temple reliefs as capital in the visual design of batik, the elements of what can be used as a differentiating factor or identifier? How visuality in creating batik motif of typical Mojokerto?

## 2. Literature Review

Research on the character of the relief/statue Majapahit temple in the anthropomorphic perspective was conducted by Ranang AS (2012). Based on a collection owned Trowulan Museum in Mojokerto indicated that the statue/relief of Garuda in the Majapahit and Singasari era were very good, ornamental, and still pay attention to the provisions Cilpasastra (Hindu). The beauty of the reliefs in Majapahit temple located in Mojokerto seems potential to be developed as a visual reference for the surrounding community. An article about batik in Mojokerto by Sri Marwati (2011) showed that the *Surya Majapahit* motif is a typical motif at "Batik Erna" in Surodinawan village, Mojokerto. But actually there are many decorative elements on the temple reliefs that can be extracted as a motif.

## 3. Methodology

Research was conducted in Mojokerto, East Java. The object of research include enshrinement sites, museums, craft centers, batik centers, and other attractions in Mojokerto. This research conducted in 3 steps: identification, designing, and sounding. First, the researchers was conducted identification local potency in Mojokerto include batik motif existing, centers of batik and other handicrafts, cultural and religious tourism, creative industry, trading center, and a review of decoration and motifs at the temple reliefs Majapahit as references for creation motifs typical of Mojokerto.

Design method is done in multiple activities consist of creating motifs typical of Mojokerto based on reliefs as local wisdom, designed a pattern typical batik Mojokerto, and designing equipment for screen-printing technique of batik. The researcher team designed the motif at least four alternative types of motifs based on reliefs of Majapahit artifacts. The design motifs include elements of shape and color complete with the basic concept. The relief is a sculptural forms, ornament or decoration on the temple walls or shape of the temple itself.

Finally, the design motifs result of this study requested feedback to stakeholders in Mojokerto includes artists and related institutions. Their suggestion or critic for the design motifs is expected especially in the aspect of motifs, philosophies, and color batik. From the results of this study will be followed up in the second year of research with training of design technology for batik screen printing, the production activities, and exhibitions batik Mojokerto.

## 4. Discussion

### 4.1. Overview of Mojokerto

The Mojokerto region lies between 111° 20'13" - 111° 40'47" east longitude and between 7° 18'35" – 7° 47' south latitude. Geographically, Mojokerto borders with two cities – Lamongan and Gresik to the north, Sidoarjo and Pasuruan to the east, Malang to the south, and Jombang to the west. Administratively Mojokerto consists of 18 districts, namely: Jatirejo, Gondang, Pacet, Trawas, Ngoro, Pungging, Kutorejo, Mojosari, Bangsal, Mojoanyar, Dlanggu, Puri, Trowulan, Sooko, Gedek, Kemlagi, and Dawarblandong.

Mojokerto is quite popular, both at national and international levels. It has a close of relation with the past history, namely the kingdom of Majapahit. Majapahit was the center of civilization of the century 13-15 AD. The center of the ancient civilization is located in the valley of the river Brantas between Kediri and Surabaya in

the location that is now called Trowulan, near Mojokerto (Robson, 1981). And Trowulan is the capital of the kingdom of Majapahit (Dumarça, 1988).

Mojokerto is a region where the civilization of Majapahit grew, developed, and reached their peak. Majapahit political supremacy has characterized by a broad territory that were not only reach the archipelago but also foreign countries. Majapahit also has supremacy in the field of culture. Even the political and cultural power of Majapahit dominated almost throughout the *Nusantara* region. It is not surprising that the Majapahit was very superior in the field of art and culture, such as literature, dance, architecture, temples, and other various artifacts. As a place where the kingdom of Majapahit, Mojokerto has various important sites, such as temples, tombs, and others. That is why Mojokerto known as a destination and tourist visits, where visitors can enjoy and admire the traces of Majapahit civilization.

#### 4.2. Batik Art in Mojokerto

Culture and arts in Mojokerto can not be separated from the greatness of the kingdom of Majapahit in the past. In fact, Mojokerto can be regarded as owner of Majapahit culture. Mojokerto has a cultural, arts and traditions of diverse (Taufik and Wandini, 2012). Mojokerto has various types of performing arts, such as *Bantengan*, *Jaranan*, *Reog*, *Ludruk*, *Wayang* (shadow puppets), and others. In the field of handicrafts, Mojokerto also has a wide range of arts crafts, such as metal (silver and cast metal), batik, embroidery, shoes, cast brass, wood (boats phinisi), gift, bags and purses, patchwork, and crafts bamboo.

Although Hardjonagoro argues that batik has not been known since the beginning of the Hindu-Buddhist era especially the Majapahit era. Even batik is also used in traditional ceremonies at court, such as nobles wedding ceremony, but textiles other than batik (Hardjonagoro, 1979). However, it is clear that the Majapahit became source of inspiration for artists into endless to pour their creation in the further period (Mulyana, 1965). Based on it there is an idea that history of batik in Indonesia can not be separated from the cultural history of Majapahit. Similarly, the existence of batik in Mojokerto can not be separated from the history of the Majapahit kingdom.

In the field of batik, Mojokerto has batik production centers for instance Kwali, Mojosari, Betero, and Sidomulyo. The area of batik production is thought to have come from the batik Majapahit period. There is even speculation that the Solo and Yogyakarta batik is a refinement batik style of existing in Mojokerto (Nurainun, Heriyana, and Rasyimah, 2008). Batik Mojokerto has unique or characteristic that is different from other batik. Batik Mojokerto characteristics can be identified visually through the motifs and colors.

Batik products are usually different from one region to the batik products from other regions. The difference refers to the visual aspect, such as the shape motifs, colors, styles, and techniques of manufacture. Aspects of the visual differences are caused by many factors, such as the natural environment, historical, social, cultural, technical, philosophical, and economic factors. Thus batik Mojokerto has a characteristic or characteristics which different from other batik. Batik Mojokerto can be identified through its pattern or motif. Types of batik Mojokerto include: *Surya Majapahit*, *Alas Majapahit*, *Lerek Kali*, *Gedheg Rubuh*, *Bunga Matahari* atau *Matahari* (Sunflowers or Sun), *Mrico Bolong*, *Pring Sedapur*, *Gringsing*, *Bunga Sepatu*, *Kawung Cemprot*, *Koro Renteng*, *Sisik Gringsing*, *Rawan Inggek*, *Ukel Cambah*, *Kembang Suruh*, *Buah Mojo*, *Mata Klungsu*, *Mahkota*, *Kupu-Kupu* (butterfly), and *Kembang Baya*.

There was an argument that the first three motifs – *Surya Majapahit*, *Alas Majapahit*, and *Lerek Kali* – were seen as batik motifs of Mojokerto. It is based on the other motifs which are also found in other areas. Motifs that are considered the same or at least similar to batik from other regions is *Mrico Bolong*, *Pring Sedapur*, *Gringsing*, and *Rawan Inggek*. Although there is a similarity in name, but it is visually different. This distinction is possibly because of each area has its cultural roots, respectively, which differ from one region to another. So, the equation is not identical between the motif name and its visuality.

However, the existence of a motif can not be separated from the factors driving its appearance. There are several factors that affect the artist in the creative process. The artists are not an isolated persons, but they are being a part of the community. Ideas, thoughts, and imagination of the artist can not be separated from the context in which the artist lives. This means that the context of historical, social, cultural, political, economic, and other are a space where artists interact.

Similarly craftsmen in Mojokerto create batik motif, as has been done by Ernawati. As a batik craftsman, she has produced design motifs more than 30 kinds motif of Mojokerto batik. Six of them were registered with the Department of Industry and Trade in Mojokerto, they are *Mrico Bolong*, *Prone Inggek*, *Sesek Grenseng*,

*Matahari, Koro Renteng, and Pring Sedapur.* Motif of Mojokerto batik were influenced by past history, for example motif of *Surya Majapahit* or *Alas Majapahit*. The motifs name give caused such a sense of a historical association, Majapahit. Motif of *Surya Majapahit* is an abstraction and symbolization of triumph Majapahit. While the motif of *Alas Majapahit* describes the phenomenon of the forest with animals in it. Symbol of Majapahit is realized through a form of *Surya* (Sun) or *Surya Majapahit* and *Candi Bentar*.

Motif of *Surya Majapahit* in the temple reliefs categorized as a medallion. This motif is depicted with a round shape, there is a kind of the edge of the striped petals, and there are lines like rays between the petals. The placement of this motif usually is in *Kubang Sangkup* of a temple as a symbol of the Majapahit kingdom. In the Hindu tradition, *Surya* is identified as the solar god, Vishnu.

The social environment also influences the creativity of artist. In Mojokerto batik, it can be seen through the motif of *Gedhèg Rubuh*. The motif is influenced by social factors. The motif resembles bamboo sloping (almost collapsed). This motif is an abstraction and symbolization of lower socioeconomic conditions.

Batik motif is also affected by natural environmental factors such as the motif of *Mrico Bolong* and *Pring Sedapur*. The motif of *Mrico Bolong* is like a hollow sphere pepper. The motif of *Pring Sedapur* is visualization of a clump of bamboo with dangling leaves and peacock. This motif is colored with white on base and decorated with blue bamboo rods, while the leaves are in blue and black. Motifs that derived from the natural phenomenon are *Koro Renteng, Merak Glathik, Rawan Ingeek, Ukel Cambah, and Kembang Suruh*. The motif of *Koro Renteng* describes lentils fruit or nut (latin: *Canavalia*). In Indonesia, there are three types of lentils, the sword lentils (*Canavaliagladiata*), surly lentils (*Mucuna pruriens*), and cowpeas lentils (*Psophocarpus tetragonolobus*). The motif of *Koro Renteng* is a string of beads of lentils (*direntengi*, Javanese) which are arranged one by one.

Woman activities in the kitchen for instance cooking, sometimes cause creative ideas. Sprouts buds with a unique shape and color white is a great attraction and inspiration in creating a batik motif. The motif of *Ukel Cambah* is an overview of woman activities in the kitchen related with cooking. There are also motifs that are affected by natural beauty, like a motifs the peacock and wren. The peacock is known for its beautiful peacock feathers, while the wren is known for its jet black color with white on the head.

The motif of *Rawan Ingeek* describes birds and marshes. *Rawan* comes from the word quagmire in the Javanese language, which means in the swamp, while *Ingeek* (Javanese) means swimming. *Rawan Ingeek* is a motif depicting a bird swimming in a swamp. Betel or *Sirih* (*suruh*, Javanese) is an Indonesian native plants that grow vines or leaning on another tree. There is a kind of red betel (*Piper crocatum*, Latin) and green betel (*Piper betle*, Latin). In ancient times, women chewed betel with gambier and lime all together. In Javanese tradition, betel leaves are used in mating rituals, as herbs and is believed to be able to cure the disease. In fact the betel is not flowering, but in the motif of *Kembang Suruh* is described as the creeping and flowering plants.

### **4.3. The Creative Process in Designing Batik Motif the Typical Mojokerto**

In this section, the results of the design motif typical of Mojokerto will be described here. In designing motif typical of Mojokerto requires the search of the identity of art and culture in Mojokerto. The creative process of designing motif typical of Mojokerto was done through several phases, namely the inventory and identification of the temple reliefs, selection of elements motif on the temple reliefs, design activities, and the results of the design.

#### **4.3.1. Identification of Relief on Majapahit Temple**

As stated by Slamet Mulayana that Majapahit has inspired various artists in the later period. Majapahit as a model for culture that develop later. It can be seen, for example, at the gate of Mosque Kudus (Central Jawa) which resembles a temple briefly from the Majapahit period. The architectural or the building castles of Mataram Islam kingdom is the continuation of the architectural or the building of Majapahit period. It is not surprising that the Majapahit became a source of reference and inspiration artistic creation and cultural practices until now. There are not exception to the craftsmen batik in Mojokerto. Mojokerto is not only as the site of the Majapahit kingdom, but at the same time as the heir to the art and culture of Majapahit.

There is not surprising if many artistic and aesthetic creations of the artists in Mojokerto orientated arts and culture from Majapahit period, especially happened in the art products of Mojokerto batik. Temples and reliefs need to be explored, studied, developed and expressed into art works with creative and innovative still in the local characteristics. Mojokerto craftsmen realize that reliefs on temple is a source of inspiration to be developed into the creation of new batik motifs.

Mojokerto has 12 heritage the temples sites from Majapahit period, namely: temple of Bajang Ratu, Bangkal, Jedong, Kasiman Tengah, Minak Jinggo, Kedaton, Tikus, Kendalisodo, Petirtaan Jolotundo, and Siti Inggil.



Meanwhile Brahu and Wringin Lawang temple is not discussed here because there is not relief elements found in that temple.

#### 4.3.2. The Motif Elements on Temple Relief

In this section the elements of the motif in several temples in Mojokerto will be described. Motif elements which means the element existed in the temple reliefs. These elements is seen as a visually potential that can be used to develop a motif typical of Mojokerto. It is based on the fact that the Mojokerto is an archaeological site with a rich varieties of temples. This potential can be viewed as a cultural potency. It can also be used as a development of local characteristics and the typical of Mojokerto batik. The following are the results of the inventory and identification of the elements motif on temple reliefs in Mojokerto.

##### 4.3.2.1. Ornaments on the Temple of Bajang Ratu

Elements of the motif on the reliefs of the Bajang Ratu temple can be classified into many elements for instance plants, animals, geometrics, and other elements. Plant elements are in the form of tendrils. Animal elements are in the shape of lion, the head of *Kala*, the head of the eagle, and a dragon. Geometric elements consist of inverted pyramid. In addition, other elements are also found, for example the sun.



Figure 1. Animal motif on the Temple of Bajang Ratu  
(Photograph: Ranang, 2013)

##### 4.3.2.2. Ornaments on the Bangkal Temple

Motifs on the reliefs of Bangkal temple also can be classified into plants, animals, geometrics, and other elements. Plant elements shaped tendrils and mountain upside down. Animal elements visualised in the form of the head of *Kala* and shells. Geometric elements consist of inverted pyramid, *tapak dara*, parallelogram, and guirlande.

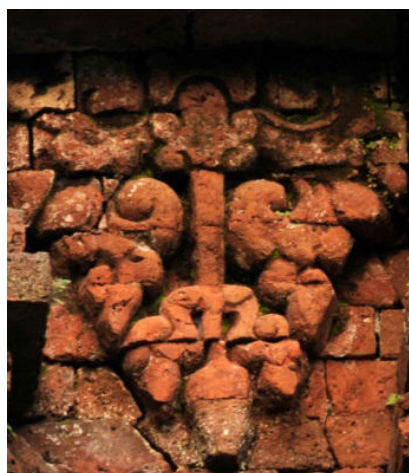


Figure 2. Inverted *Tumpal* on Bangkal Temple  
(Photograph: Ranang, 2013)

##### 4.3.2.3. Ornaments on the Jedong Temple

The motif on the Jedong temple consists of plant and animal elements. Plant elements also shaped tendrils. While the animal element found in ornament of *Kala* head at the top of the temple door way either west or east. This decoration is also found on the roof, clinging to the side of the north and south. In addition, there are also

other elements shaped a mountain motif in each corner. At the bottom of the roof, there are ornament of *Kala* and at the corners was decorated by a mountain motif.



Figure 3. Tendrils motif on Jedong Temple  
(Photograph: Ranang, 2013)

#### 4.3.2.4. Ornaments on the Temple of Kasiman Tengah

Ornament on the reliefs of Kesiman Tengah temple consists of plant, animal, human, and geometric elements. Plants elements were created into the shape of flower. While animal elements were created into a lion and a rabbit-shaped animals. Elements of human-shaped figure of a woman.



Figure 4. Ornament of *Kala* on the Kesiman Tengah Temple  
(Photograph: Ranang, 2013)

#### 4.3.2.5. Ornaments on Relief of Menak Jinggo Temple

Ornament on the Menak Jinggo temple also consists of plant, animal, geometric, and other elements. Plant elements shaped plant tree of life, and fried tendrils. Animals elements shaped rabbit (*Hare*) and head of *Kala*. Geometric elements formed guirlande. It also found that the ornament shaped home. Adorned with *Kala*'s head located on the upper side of the temple entrance. This figure is characterized by the presence of horns, bulging eyes, fangs and chin, claws, and tendrils. *Kala* head that resembles a human face is a depiction of Banaspati, the forest guard animals (Kempers, 1954).

Ornament shaped head of *Kala* is a symbol repellent reinforcements. Head *Kala* is also believed to have magic powers (van der Hoop, 1949). Meanders decoration found on the upper side panels decorated with reliefs and garlands on the lower side. Adorned with the figure of a quadruped, winged, and the tail section is decorated with tendrils form. Adorned with animal figures rabbit resemble *hare*, big eared, horned, and long-tailed. This decoration symbolizes rebirth, renewal, fire chastity, and life after death (Choper, 1978).



Figure 5. Ceplok ornament on Menak Jinggo Temple  
(Photograph: Ranang, 2013)

#### 4.3.2.6. Ornaments on the Kedaton Temple

Elements of the decoration on the reliefs Kedaton temple are not quite prominent, such as geometrical motifs elements combined with plants elements shaped *tumpal*.



Figure 6. Geometric and *tumpal* ornaments on Kedaton Temple  
(Photograph: Ranang, 2013)

#### 4.3.2.7. Ornaments on the Tikus Temple

At the Tikus temple, plantelements of reliefs are found in the form of jasmine flower, lotus flowers, geometric, and *Kala* head.



Figure 7. Lotus and jasmine flowers at the Tikus Temple  
(Photograph: Ranang, 2013)

#### 4.3.2.8. Ornaments on the Relief of Kendalisodo Temple

Reliefs on the Kendalisodo temple depict the story of Panji. Panji stories is depicted with wearing a hat *Tekes*. Panji include the palace of the nobility. Reliefs depict the life time of wandering in the world that there is no direct link with the gods (Manuaba, Setijowati, and Karyanto, 2013). Ornaments on the reliefs of Kendalisodo temple composed of geometric form, reversed *tumpal*, and tendrils elements.





Figure 8. Geometric ornament at Kendalisodo Temple  
 (Photograph: Arif Setiawan, 2013)

#### 4.3.2.9. Ornaments on the Jolotundo Temple

Jolotundo is a bath site. The temple is located on the west slope of Mount Bekel, the west peak of Mount Penanggungan. This temple is a bathing place Udayana (Duijker, 1944). The Jolotundo temple was built by king Jenggala named Panji Joyokusumo and a cemetery building (Harianti; Pinasti, and Sudrajat, 2007). Temple relief depict Bhima story located on the front side (west) porch. Reliefs depict the life of *Pandawa* families and ancestry (Duijker, 1944). On the side of Jolotundo temple there are an eagle and a dragon-shaped ornament. Both of these figures refer to the *Amrta* theme.

#### 4.4. Selection Variety of Ornament on Relief as Reference for Developing Batik Typical of Mojokerto

From the above identification results, obtained some ornaments chosen as a reference for the creative team in developing Mojokerto batik. Actually all attractive ornaments are used, but researchers needs to pursuing the characteristic ornament are selected.

Table 1. Ornaments on the relief of the Majapahit's Temple in Mojokerto

Temple	Motif/Ornament on Relief			
	Plant	Animal	Geometric	Other Figure
Bajang Ratu	Tendrils	Lion, Head of <i>Kala</i>		
Bangkal	Plant shape <i>Tumpal</i> upside	Head of <i>Kala</i>		
Jedong	Tendrils, Plant shaped <i>tumpal</i>	Head of <i>Kala</i>		
Kasiman Tengah	Flower	Head of <i>Kala</i> , Lion		Woman
Menak Jinggo	<i>Ceplok</i> flower	Head of <i>Kala</i> , animal, rabbit ( <i>Hare</i> )	Guirlande	Home
<i>Kedaton</i>	Plant shaped <i>Tumpal</i>		Meander	
<i>Tikus</i>	Lotus, Jasmine	Head of <i>Kala</i>		
<i>Kendalisodo</i>	Plant shaped <i>Tumpal</i> up side down		Parallelogram	

Furthermore, the results of the determination of the selected motifs, researchers do contemplation of all the objects that have been observed and chosen as the basic to the next stage of the creative process.

#### 4.5. The Design Motif of Batik

This stage is meant to find a motif typical of Mojokerto. Activities to achieve this goal are:

##### 4.5.1. Drawing Motif

Motifs drawing were done by the creative team which was formed by the researchers. The creative team consists of 4 students of Batik Study Program, Faculty of Art and Design. The creative team were given a briefing by the chief researchers in order to focus on the design motifs to suit the purpose of research. Based on the pre-defined ornaments above, the creative team explored motif with the direction and guidance of researchers. From the drawing resulted of diverse motifs, then the results were evaluated by the researchers with the creative team, to do the necessary improvement of the motif design.

##### 4.5.2. Digitizing Motif

From the results of the designing motifs undertaken by the creative team, the researcher selects motifs that reflect the particularities of Majapahit considered potentially be developed into Mojokerto batik. The results of



the selection is then performed by reinforcement drawing lines with a black marker and connecting lines that are still unbroken. When everything is perfect, then we cleaned it with a pencil eraser.

Then motifs are digitized with a scanner with a resolution outputs between 200 up to 300 pixels. The results of scanning is a JPEG image file. The format is relevant to the application of graphics to be used in image processing and coloring digitally in the next stage.

In addition, drawing motifs can be done directly using CorelDraw. From the concept of motif which is directly drawn by the computer in order to obtain a good image, even the detail line can be achieved. In fact, the coloring can be done in this software. It's just required high skill in operating CorelDraw software.

#### 4.5.3. Coloring Motif

Image in JPEG format is the results of scanning then processed with Adobe Photographshop software. The use of such applications is for being easily in image processing and coloring exploration. Compared with other software, Photographshop is more adequate for being used in the design motif. In addition, the creative team have a lot of familiarity with the software.

Motifs is colored by the tools in Adobe Photographshop. All of the motifs can be made by several possibilities coloring easily. The coloring system give the researchers ideas easily in the selection of the best motif. In addition it will allow the creative team to improve the color, if there is correction of researchers or feedback of stakeholders in Mojokerto during the exhibition and Focus Group Discussion (FGP).



Figure 9. Creative process: drawing, computerize, dan coloring

(Photograph: Ranang, 2013)

From the results of digitally designing above, motif printed on paper. Then the technical specifications of the motif either color, line, and size was formulated. It is intended to be handled for batik craftsmen in production later. Furthermore, the technical data required if the motif was later developed into a prototype or will be submitted to the Intellectual Property Rights related agencies.

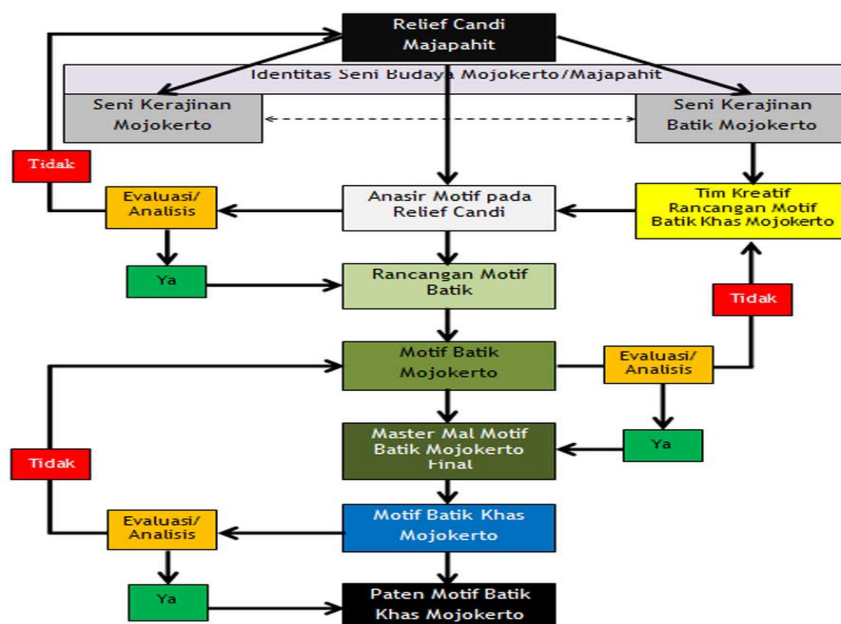


Figure 10. Flowchart of design Mojokerto batik

(Guntur, 2013)

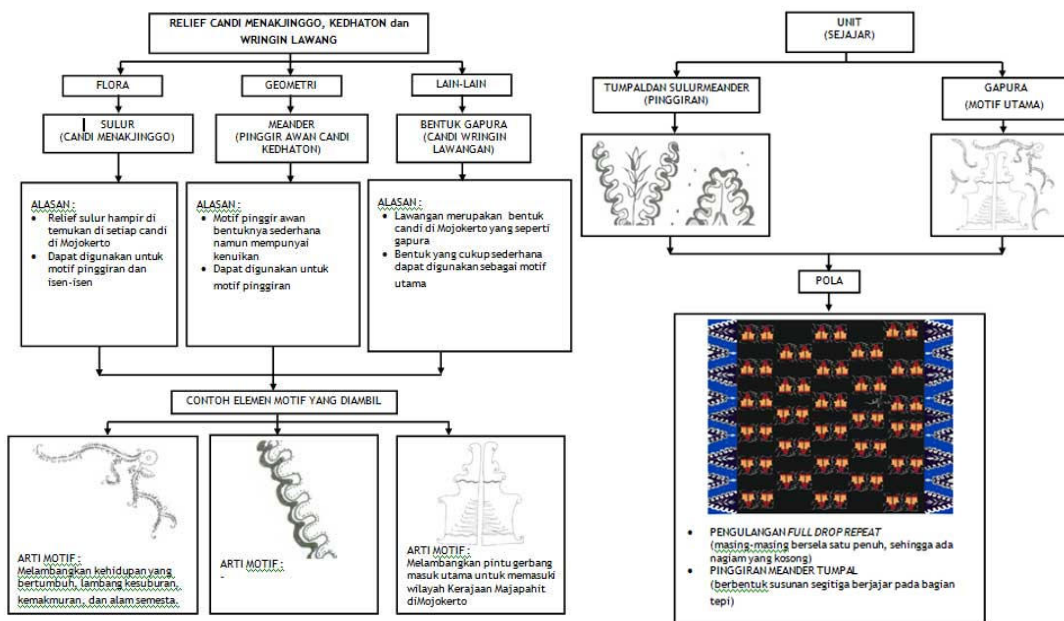


Figure 11. Transformation of ornament into batik motif

(Guntur, 2013)

## 5. Conclusion

Mojokerto is one of the cities in East Java that has historical heritage sites of Majapahit kingdom, classified into temple and *petirtaan* (baths). Nine of them used as the object of this study, the temple of Bajang Ratu, Bangkal, Jedong, Kasiman Tengah, Menak Jinggo, Kedaton, Tikus, Kendalisodo, and Jolotundo. The nine temples have been selected because each of them has reliefs.

In an effort to build the character of Mojokerto batik, the temple reliefs become an important source of inspiration to be explored and developed. Identification of the temple reliefs show that there are similarities and differences in the elements of motifs, for instance plants, animals, geometric, and other elements.

Based on the elements of ornament, there are common and special elements. Common elements means a depiction of elements of motifs that can be found in all of the temple reliefs. While the specific elements are different motifs depiction of a temple to other temples.

Ornaments that common seem in many temples are the *kala* head, tendrils, and *tumpal*. These three elements can be found in the temple of Bajang Ratu, Bangkal, Jedong, Menak Jinggo, Kedaton, and Tikus. In addition to the general elements, each temple has specific motif, for example, guirlande or meander found in the temple of Menak Jinggo. Sun-shaped motif found in the Bajang Ratu temple. Parallelogram-shaped motif (lozenges) found in the Bangkal and Kendalisodo temple. animal motif shaped rabbit (*Hare*) found in the temple Menakjinggo and Bajang Ratu. Plant elements shaped ceplik motifs, lotus flower, and jasmine found in the Tikus temple. Plant elements shaped tree of life motif found in the Kedaton temple.

Ornaments seem in various Majapahit temples can be used as source of inspiration for developing the Mojokerto batik. In addition, based on the ornaments in temple reliefs, characteristic of Mojokerto batik also based on local color. Mojokerto local color based on the tradition of Majapahit. For example, yellow is a symbol of the triumph of Majapahit. Thus, yellow can be used to signifier character of Mojokerto batik. Local color can also be found on the bricks used as building material temple. Thus, to characterize the brick red color into characteristic of Mojokerto batik. The triumph Majapahit represented by the figure of Gajah Mada. His might symbolized by the color black, the color of the eternal. The black color may be forming the characteristic of Mojokerto batik.

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