

Creative Batik Motif Design Based on Local Cultural Art and Natural Environments

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Local arts, culture, and natural environment of Indonesia had their own uniqueness. They might be explored to help and to develop batik industry in Indonesia, especially in motif aspect. It was necessary to help craftsmen to create new and innovative batik products. The study was conducted as an effort to motivate batik craftsmen in developing batik industry through production of creative and unique batik motives. First study question: What are artistic motives of local arts and culture of natural environment of Yogyakarta and Central Java able to give distinct and characteristically local styles? Second was how to create creative batik inspired by local arts and natural environment. It has identified arts that have potentials to give inspiration of new motives, including Borobudur temple, Prambanan temple, Sewu temple, leather puppets (Wayang) and keris. Also, it has identified environments such as Merapi Mountain, Code River, Parantitis Beach, Sewu Mountain, Menoreh Hill, Solo River, and Grojogan Sewu waterfall. Ten designers and five batik industries were involved in materializing the batik motives in addition to lectures and students. Exploration method was used here that examined motif forms, analysis and creation of alternative sketches, selection, creation of designs and prototypes, and finally evaluation. The results were 159 batik prototypes of local arts and culture motives. It was concluded that the craftsmen needed new designs of local characters of Indonesia that have been created in the study. Also, it has managed to create new names of unique, creative, and innovative batik motives based on the local arts, culture, and also natural environment. They were ready to apply in the production of the batik for commercial purpose.

Keywords: creative, innovative, local arts, local culture, local natural environment

Outcome Predictions

Batik was one of the kinds of industry in Java. The industry has long been popular and developing up to the present. The well-known batik industrial areas of Java among others were Yogyakarta and Solo. There were many people of the areas who worked as batik industrial craftsmen/entrepreneurs. However, not all of the craftsmen and the entrepreneurs in the batik industry managed to develop their business. The causal factors among others were the limitation in the ability of the entrepreneurs in the batik industry to develop and to create more innovative batik products, while consumers were increasingly critical in selecting the batik products they want to buy. Consequently, it required them to keep pace with the demand of their consumers.

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Considering the condition described above, it was necessary to help the batik industrial society by developing strategies in developing the industry so that they were able to satisfy market tastes and to compete globally. One of the strategies was to make creative efforts, especially in developing batik motives/designs that were unique, creative, and innovative based on local cultural arts and natural environment elements.

There were many cultural heritages in Yogyakarta and Solo such as Borobudur temple, Prambanan temple, Sewu temple, wayang, and keris representing valuable cultural heritages of forefathers that had interesting structures, forms and beautiful ornaments. Additionally, the areas also had beautiful natural environment. The cultural arts and the environment had huge potential to serve as inspiring source of new creative batik motives. Therefore, it was expected that unique, creative, and innovative batik motives would be created and became superior products that gained consumer's acceptance.

The objectives of the study were:

- To create new, unique, creative, and innovative batik motives based on local cultural arts and natural environment;
- To improve the quality and the productivity of batik industry by diversifying the products and by creating innovative designs to satisfy market tastes;
- To help batik industrial society in the areas of Yogyakarta, Solo, and the surrounding areas, especially those with difficulties in developing their business because of their limited ability in developing and creating innovative designs of batik product;
- To motivate the entrepreneurs in batik industry, to reactivate, and to increase the production of creative industry of batik handicrafts.

The uses of the study were:

- The entrepreneurs in the batik industry of Yogyakarta, Solo areas, and the surrounding areas, especially those with difficulties in developing their business and in accessing knowledge, skills, and experiences in the area of designs and batik;
- The entrepreneurs in the batik industry could adopt or develop the batik motives and designs resulting from the study in producing batik products.
- Natural environment would be well-preserved because the study put the priority on the use of natural dyestuffs.

Study Method

The study used cultural and artistic aspects as inspiring source in creating batik motives, including Borobudur temple, Prambanan temple, Sewu temple, keris, and wayang of Solo style. Additionally, it also used natural environment of Yogyakarta and Solo to enrich the diversity and the beauty of the resulting motives. The proposed results of the study would be different from those of prior studies though they used the same idea source, which was Prambanan temple. It was planned that the study would be organized in three months with the following design of activities:

- (1) The collection of the data of temples, wayang and keris was carried out through literature study and interview. All of the resulting data were then analyzed and used as the basis in creating batik design/motives;
- (2) The creation of batik motives includes following activities:
 - creating alternative sketches;
 - selecting sketches;

- creating batik designs/motives;
- evaluating batik designs/motives.

(3) The materialization of batik products based on the created designs followed by the evaluation of the materialized products;

(4) The exhibition of the results of the study;

(5) The socialization of the results of the study to the craftsmen of the batik in Yogyakarta, Solo, and the surrounding areas and to the institution concerned, including Department of Industry and National Craft Council, and so on;

(6) The training of creating batik designs and products for the craftsmen of batik in Yogyakarta, Solo, and the surrounding areas.

Once the activities of the study have been in completion, it was expected that the resulting motives were used and even considered as the reference for further development by the craftsmen in the batik industry.

The Definition of Temple, Keris, Wayang, and Natural Environment

Temple

The term *candi*, meaning temple, came from *candika* that was one of the names of Durga goddess as the goddess of death (Soekmono, 1973). Therefore, the temple was often related to the means of enthronement of a king. The term *candi* in Indonesian referred to an ancient religious building of Hindu-Buddha civilization (Dumarcay, 2007). It was used as the sacred place to worship gods and goddesses or to venerate Buddha. Actually, it was not only used as religious place, but also as non-religious one. It was evidenced in many archeological sites from classic Indonesian Hindu-Buddha epoch that served the function of palace, bathing place, gateway, and so on. All of the ancient building might also be referred to as temple.

Others suggested that temples were replicas of gods' living place, which was Mahameru Mountain. Therefore, the architecture of the temples was ornamented with various kinds of carvings and relieves resembling the natural condition of Mahameru Mountain (Supriatna, 2011). The temples and the message sent through their architecture along with their sculptures were inseparable of their spiritual content, creative power, and the skills of the creators. The existing interpretation of the temple only referred to the building inheritance of Hindu-Buddha epoch in Indonesian archipelago, including Malaysia. The temple referred to historic buildings of Hindu-Buddha all over the world, including Cambodia, Myanmar, Thailand, Laos, Vietnam, Sri Lanka, India, and Nepal (Retrieved from id.wikipedia.org/wiki/candi).

Keris

Based on the vocabulary of Javanese, the name *keris* came from the syllable *Keris* derived from the word *kekeran* and the syllable *ris* derived from the word *aris*. The *kekeran* meant fence, hindrance, warning, and control. The word *aris* meant calm, slow, and fine (Koesni, 2003). Meanwhile, others interpreted the word *keris* as *sinangker karon aris*, meaning that there was a secret in the object, which was noble values of a creative work symbolizing life order and theological understanding. In other words, it had noble meaning of Javanese philosophy. It also symbolized the sharpness with which human being must think that the resulting thoughts were useful for people at large (Retrieved from <http://www.tabloidpamor.com/berita-237-pamor-keris-dan-kultur-budayanya.html>). There was in Javanese stratification in the usage of the language and the word *keris* belonged to the stratum *ngoko* that was used in the

socialization of individuals of equal social status and its finer usage was *dhuwung* that belonged to the *stratum krama*, while the higher *stratum* was *krama inggil* and it was called in the *stratum curiga* (Koesni, 2003).

The whole *keris* had following parts: *ukiran* or carvings of its lower part, *wilahan* or its blade, *warangka* or its sheath, and *pendhok* or the cover of the *warangka*. Actually, what was referred to as the *keris* was only its blade and in its development the whole parts that constituted the cultural object were called *keris* (Hamzuri, 1988).

Wayang

The term *wayang* might be analyzed from some point of views. In *Kamus Umum Bahasa Indonesia* (1976) it was defined as figures made of leather, wood, and other materials and imitated human beings. It was played in a puppet shadow play (Poerwadarminto, 1976). It also meant shadow (*ayang-ayang*) because its shadow was seen on a screen (*kelir*) describing people's behavior in the past in the imagination of the creator. It was clearly observed in the visualization of the puppet that fitted the behavior of certain characters (Sagio, 1991).

It was further described by Pigeaud who defined the *wayang* as: (1) performed puppets; and (2) the performance performed in various forms and contained certain teachings accompanied by *gamelan* ensemble. The term *wayang* came from Javanese word that meant shadow. Therefore, the *wayang* was more likely to be defined as the performance of leather puppet shadow play. Especially, *wayang purwa* played the stories of *Mahabarata*, *Ramayana*, and *Kresnayana* as the most favorite stories in Java. The *wayang purwa* was made of leather and widely known as *wayang kulit purwa*, leather puppets (Kusumawati, 2011).

Natural Environment

The term *nature* might be understood in its broader meaning as found in the words *world*, *physical world*, or *material world* referring to the phenomena of *physical world* and also *life* in general. *Natural scale* stretched from *sub-atom* to *cosmos*. However, it might be considered as coming from English, which was “*nature*” coming from Greek *natura* that meant *essential quality*, *innate disposition*, and literally meant *birth* (Harper, 2006). The *natura* was the Greek translation of *physis* originally related to *innate characteristics* of *plants*, *animals*, and other figures in the world (Naddaf, 2006).

In various usages of the concept, the term *nature* was often used to refer to *geology* and *wild life*. It might generally refer to various *living plants* and *animals*, and in certain cases it also referred to certain kinds of *objects* and how they changed such as *weather* and *geological aspects* of *earth* and also *materials* and *energies* that constituted them. It also related to *environment* or *natural environment* or *wild animals*, *stones*, *forests*, *beaches*, and in general things that have not substantially changed by *human beings* or survived with *minor human interference*.

Definition of Batik, Motif, and Batik Pattern

Etymologically, the term *bathik* came from Javanese with the suffix *tik* that meant “*tiny*”. It was also the case of the term *ambatik* (Javanese) or *anyerat* (writing or drawing something small and complicated) that meant *painting* on *plain cloth* using *wax* (*malam*) and *canting*, which was a *painting tool* made manually (Soedarso, 1998). There were those suggesting that the term *bathik* written in the form of *batik* or the Javanese letter *tha* was written using *ta*. The *batik* might be interpreted following *jarwa dhosok*, which became *ngembat titik* or *rambataning titik-titik*, *creeping propagation* of *dots*. In Javanese culture, the *batik* might be understood

using equivalent without any further explanation. The verb *membatik*, creating batik, was understood as long sequence of processes of painting a motif till finished piece (*babaran*) (Honggopuro, 2002). In other words, it started from designing and then creating pattern and waxing, dying and finishing that were referred to as *pelorodan*, which meant removing the wax from the cloth so that the motif was materialized on the cloth.

The main roles of the batik were as clothing material, while the form was adjusted to its function. It served as the clothing material, while *keprabon* clothing symbolized magnificence and the nobility of a king, as the clothing worn in the ritual of passage and also *pasowanan*. It was used in the forms of long clothes (*bebed/tapih*), *kamphuh* (*dodot*), *semekan* (*kemben*), *selendang* or shawl, head scarf (*dhestar*), and *sarong* (Suyanto, 2002).

Ornamental styles or motives represented basic form that served as the point of departure in creating ornaments. It was also the case of the ornamental style and the motives applied to batik media. The motives were then arranged in a way that they formed patterns (Dalidjo, 1983). The ornamental styles or the motives became essential for a pattern once the motives have been arranged into a pattern (Gustami, 1980).

The motives were usually created on the basis of natural forms such as plants, human beings, animals, inanimate objects (e.g., mountains, clouds, and buildings) and so on. Furthermore, they could also describe or express someone's experience or artist's esthetic experience. They might be taken from various referential sources, which were: (1) plants, animals, human beings, mountains, water, clouds, sun, moon, stars, and so on; (2) symbols or god attributes or those in power in the forms of weapons, thrones, letter arrangement, and so on; (3) the forms of human imaginary forms such as *kinara-kinari*, *ganesha*, *kala-makana*, and so on; and (4) geometric forms such as circles, triangles, squares, and so on (Dalidjo, 1983).

Creating a motif was drawing basic object or idea of new forms. The forms were then processed into new forms that were beautiful, of flat impression and did not have any of their original characteristics of the source of the idea. It was necessary in creating an ornamental style to undergo transforming process of the realistic original forms into new and unrealistic forms, which were artistic and ornamental in nature that fitted ornamental elements. An ornament must have decorative characteristic and the decorative forms could be created by deforming and stylizing the original objects. Deforming meant transforming existing form of an object into new form without removing the original characteristics, while stylizing meant transforming the existing form into more flexible one (Sutanto, 1984). Furthermore, it was described that the ornamental style of the batik was generally in the forms of: (1) stylization, which was enrichment and the transformation of form into more stylistic without abandoning its original characteristics; (2) distortion, which was the transformation of a form for the purpose of accentuating certain elements of an object; and (3) decorative, which was simplifying a form regardless of perspectives and three dimensional aspect (Riyanto, 1993).

In creating a new motif without abandoning the original characteristics of an object, the object must be thoroughly studied. The resulting motives were then arranged into a pattern of motives. The pattern of the batik was arranged in various ways, which were among others regularly repeating it on a drawing area divided into ordered areas. The methods to repeat a motif were: (1) unidirectional repetition; (2) reversed repetition; (3) rotated repetition; and (4) free or variable repetition (Suryahadi, 1998).

A batik pattern was made of two main elements, which were primary motif, filling motif (*isen-isen*). Primary ornamental style was the one that became the main element of a batik motif. A motif was an ornament applied on the background of the pattern as the filling elements or balancer that the pattern got its harmony. The *isen-isen* was an ornament that filled the main parts of a motif.

The Sources Inspiration of Batik Motif Design Creation

Borobudur Tempel

Borobudur temple was situated in Borobudur village of Borobudur sub-district of Magelang district of Central Java province. The geographic environment surrounding the temple was mountainous areas of Merapi and Merbabu mountains in east, Sindoro and Sumbing mountains in north, and Menoreh in south and it was situated between Progo and Elo rivers.

The temple was built in nine layers of terrace and a single main stupa on its top. The layers of terrace consisted of six terraces of square form and three terraced of circle form. The three lower layers were referred to as kamadhatu, rupadhatu and arupadhatu so that technically it had lower part, middle part, and upper part. It had ascending stairs in its main four directions with the main gait situated in the east. The building materials of the temple came from the rivers in the surrounding areas with the total volume of about 55,000 m³ (Balai Konservasi Peninggalan Borobudur, 2011). Observed from above, it was of square form with its center of a circle on which the stupa was situated.

The lower part that was referred to as kamadhatu consisted of undag wall and open verandah and behind it was the real foot of the temple. The rupadhatu terrace of the body of the temple consisted of paths one, two, three and four. Ornamental style of antefixes was found on the wall of the terrace and water ducts were found on each of the outer corners. The lower wall and the upper wall were connected by floor line. Meanwhile, right above the floor line and behind the antefixes was balustrades along with their feet, body and head, except the path one.

The arupadhatu or the head of the temple consisted of shelf (batur) levels one, two, three and the central stupa. The three walls were straight or level without any foot profile and the head did not have any relief. There were small stupas on the shelves in which were Buddha statues. There were 72 small stupas distributed in three respective levels of the temples, consisting of 36 statues, 24 statues, and 16 statues. The stupa of the upper part of the temple consisted of three profiles. The feet had a characteristic of padma profile, the body had the characteristic of genta profile, while the head had the characteristic of harmika and yasthi profile (Tukidjan, 2008).

There were many ornaments found on the walls of the temple such as the ornamental styles of leaves and spiraling plants. The ornamental styles were found on the panels flanking the narrative reliefs on the main walls situated in the paths one, two, three, and four (Kismayanti, 2013). Additionally, there were also reliefs telling stories such as karmawibangga, lalitavistara, jataka, avadana, and gandawyuha.

Prambanan Temple

Prambanan temple was the biggest Hindu temple situated in Prambanan area of the Special District of Yogyakarta. It consisted of 240 temples that were classified into three yards. Each of the yards was separated by surrounding fences with gates in its four directions. There were 16 temples in the first yard, including main temple and three wahana temples, two flanking (apit) temples and four pathok temples and also four corner temples.

The main temple consisted of Brahma temple situated in south area, Siva temple in central area, and Visnu temple in north area. Each of the temples faced eastward. The wahana temple was the vehicle temple (asana) of the three gods of trimurti, which were Angsa temple as the vehicle of god Brahma, Nandi temple as the vehicle of god Siva, and Garuda temple as the vehicle of god Visnu. The three temples were situated in front of the

main temple and faced westward. The flanking (apit) temple was the one that flanked three main temples and the wahana temples, consisting of north and south flanking temples. The pathok temple was situated in each of the yard corners and kelir temple was situated in each of the entrance gate. There were 224 perwara temples in the second yard and there was not any temple found in the third yard. However, excavation was conducted and found some foundation structure that was expected to be the one of monks living areas.

The Prambanan temple had luxurious ornamental patterns and its architecture was grandiosely soaring. The ornaments might be classified into flora, fauna and divine creatures and also kala-makara. The floral ornaments consisted of spiraling plants, circle-shape of flowers, patched papers, and lotuses. The fauna ornaments included goose, dogs, chickens, squirrels, crocodiles, eagles, elephants, fishes, tigers, lizards, cockatoo, scorpions, frogs, monkeys, donkeys, rabbits, snails, crow, crabs, horses, pigeon, parrot, deer, ox, rats, lions, and snakes, while the ornaments of divine creatures included kinara-kinari. Additionally, the temple also had well-known ornamental styles of batik that were referred to as nitik, sida mukti, pinggiran, and semen.

Another well-known ornamental style of the temple was Prambanen ornamental style and it was not found in any other temple. It was one of the special ornaments of the temple. It had three niches containing sitting lions between two kalpataru trees and other complementary ornaments. One of the complementary ornaments was umbrella and birds on the kalpataru trees and also the divine creatures kinara-kinari under the trees in addition to peacocks, goats, antelopes, rabbits, chickens, geese, and so on. The complex of the temples contained relieves telling the stories of Ramayana, Kresnayana, dancers, and music players, Ghana, Brahma as resi, Visnuas monk, and so on.

Sewu Temple

Sewu temple was situated about a kilometer north east of the group of Prambanan temple. It consisted of 249 buildings consisting of a main temple, eight flanking temples, and 240 perwara temples. It was expected that it used to have three yards and each of the yards was separated by surrounding fences. The main temple was situated in the first yard surrounded by fences of 85 cm of height. The main temple had central chamber and four displaying chambers and each of the chambers had its respective entrance gate. The east entrance gate served as the main entrance gate into central chamber and hence it was concluded that the temple faced eastward.

There was a series of relieves depicting the ornamental style of purnakalsa or flower vase in addition to lion statues in each of the meeting corners of the feet and the structure of stairs. Also, there was a relief in the outer side of the stairs whose ends were in the form of makara. The relief depicted a demon kalpawrksa and a flower vase in the form of sankha. Various ornaments were also found in the body of the temple, which were among others: (1) kala makara in front of their doors; (2) a relief of a sitting god in the position vajrasana whose head was surrounded by fire or siracakra as the symbol of goodness and it was situated below kala; (3) the relieves depicting some dancers and small drum players were also found on the outer wall of the balustrade; and (4) ghana representing divine creature was depicted as dwarf and it was found in the corners of the temple. The ornaments of the top of the temple were among others pilasters, niches, artefixes decorated by god statues and ornamental plants (Kusen, 1992).

Additionally, the main temple of the Sewu temple had the ornaments of medallions, flowers and spiraling plants, patched papers, and so on. The ornaments of flowers and jewelries/perls and shawls/ribbons were the characteristics of the Sewu temple.

Keris of Solo Style

Keris of Yogyakarta and Surakarta styles emerged after Giyanti treaty in 1755. The division of Mataram in Java into Yogyakarta and Surakarta was based on the treaty. The two kingdoms developed differently, especially in the kingdom protected rules. However, they might be considered as following the same pattern (Kusumawati, 2011). The kingdom of Surakarta represented the continuation of Kartasura kingdom because it was ruled by a king. Surakarta also had the right to own tangguh of the keris itself. The kingdom developed independently as a result of the presence of cultural shift. The innovation caused the change in the form of the keris of Kartasura tangguh into Surakarta tangguh (Harsrinuksmo, 2004).

The keris of Surakarta style represented the continuation of the keris of Kartasura tangguh that the keris was created in the period of Surakarta palace since the period of Paku Buwono III in 1721.

In general, the keris of Surakarta era used fine iron with pamor pattern, the pamor material was excessive, the body of the keris resembled the fingers of cassava leaves, always used ada-ada, gula milir, and pekakan that the tip of the keris resembled a tail/the buttock of hair louse, used big pesi and meteorit pamor was used because it required facial manifestation (Harsrinuksmo, 2004).

The form of Javanese keris of Solo style experienced significant changes in Majapahit era into its latest form. The carvings of the keris of Majapahit era presented the forms of ascetics with bowing position. The form is up to the present time clearly observed in the forms of the statues that have been stylized and lost its statue characteristics and the bowing figure remained. If there were ornamental variations, the typical formed would not disappear.

In general, there were two forms of warangka or sheath of Solo style, which were ladrang and gayaman. The ladrang consisted of angkup, lata, janggut, gandhek, godhong (resembled leave), gandar, ri, and cangkring. Gayaman (gandhon) was almost of the same parts as the ladrang, but there was not any angkup, godhong, and gandhek (Retrieved from id.wikipedia.org/wiki/keris). The warangka of Surakarta style was usually referred to as wanda of Surakarta Hadiningrat with wide form and various and luxurious pattern. The form of godhongan was wide, luxurious, and of various pattern. The handle had arched carvings and widened in its head, while the lower part of wadah or the sheath of the sharp blade of the keris was also wide (Buanadjaya, 1997).

Purwa Leather Puppet of Solo Style

In general, purwa leather puppet of Solo type was of static impression, especially the purwa leather puppets, had slim physical form but had valuable distinct beauty if it was played in a leather puppet shadow play because the puppeteer could easily play and control the wooden puppets so that the puppeteer affairs of Surakarta style was more likely to be dominant. Concerning with the form aspect the leather puppets also developed and even the shift of the tradition into new creation. In the glorious era of Surakarta Kingdom leather puppets of huge dimension have even been created and named Kyai Kadung (Sagio, 1991).

The typical characteristic of the leather puppets of Solo style was found in the part called praba, which was the ornaments used by knights and it was of big dimension and resembled wings symbolizing life light or highly regarded figures. The carvings of Soly style were more compact and used red and blue colors that gave complicated impression. Kelat bahu of hand and leg ornaments were simpler and short. The part ulur-ulur or the ornament of chest resembling the stretching rope that was carved in a way that it became was very interesting, the separation of the protruding part on the right and left sides that separated by fine flowers without any significant protruding part between the rope and the stem of the flower.

Gunungan puppet of Solo style had the picture of a straight and widening gate adjacent to the edge part of the gunungan puppet, which was rather thick. The giant leather puppets were in general described as slimmer so that it was easier to play them. The clothings worn by the knight characters and the king generally used parang rusak batik as sandhangan at the same time served as the sign that they were great knights though there were also some knights that did not wear the clothings made of the batik parang rusak (Soekatno, 1992).

Merapi Mountain

Merapi Mountain represented the only one situated in the Special District of Yogyakarta, which was approximately 30 km north of Yogyakarta City. The mountain was situated in four districts, including Central Java territory and the territory of the Special District of Yogyakarta, which were Sleman district, Magelang district, Boyolali district, and Klaten district. It was 2,911 above sea level with the declivity of its upper area of 30° and formed steep hill. Its crater was surrounded by old Merapi rocks in north and east that its lava vault was directed to Krasak stream, Putih stream, and Blongkeng stream. It had high erosion rate as a result of its topographic condition and high rainfall.

Code River

Code River was a river that splitted Yogyakarta City. The river bank of Code River represented green area of the city and had the potential to develop as tourist object. The river could be used as tourist attraction or new magnet of river tourism that could be integrated as cultural art tourism, tourism environment, and culinary tourism. All of them were packed in an interesting river panorama.

The Core area had some interesting sites. One of them was the area of the home of Jogja artists that was by the Public Works of the province in 2000. There were many young people enjoyed the evening time of the beauty of the scenery of the river and its environment. Big trees, bamboo clusters, and the character of the beautiful landscape in other hand were growing in big number and there were some springs (Fajriyanto, 2010).

Parangtritis

Parangtritis beach was situated in Parangtritis village of Kretek sub-district of Bantul district of the Special District of Yogyakarta. Natural potentials were supported tourism in Parangtritis and became the characteristics of the tourism object, which was sloped with huge sand area. It was also supported by open and clean sea scenery without any hindrance of islands and camphor unanimous areas stretching from north (Penyusunan Rencana Induk Wisata, 1997).

The area of Parangtritis was the one with very interesting natural tourism potentials. A blend of natural elements of ocean, beach, land, and mountains in an area that was relative wide though it was able to create typical atmosphere. Natural atmosphere that rapidly changed to the north direction presented an interesting sequence of view changes from beach to mountainous areas.

Sewu Mountain

Karst was mountainous areas of camphor stones with unique landscape as a result of the erosion of the stone by water. The formation of the karst lasted for hundreds of years and resulted in invisible streams, vertical wells, springs, complex underground water systems, and caves (Nuryanti, 2006).

Sewu Mountain was one of the karst areas of Java Island. The carst area of Sewu Mountain geographically stretched in the southern area of Java from Central Java to East Java. Administratively, the karst of Sewu Mountain was situated in the Special District of Yogyakarta, precisely the district of Gunung Kidul and some

areas of Bantul district. The topography of the karst of Gunung Kidul was situated in the south areas of Gunung Kidul, including 10 sub-districts with the total karst areas of 82,637 hectares or 55% of the territory of the district (Wahyuningsih, 2009).

There were two kinds of karst, which were endokarst and eksokarst. The potential of the endokarst of the mountain was classified into two, which were cave group and underground stream group with their respective characteristic attraction related to their morphology, morphometry, genesa, and panorama. The potential of the eksokarst of the mountain was particularly classified into three, which were beach object, karst hills, and karst valley. The karst spread was observed in the phenomena of eksokarst were esthetically very interesting and unique. The phenomena of the endokarst began to be popular for the people, especially karst caves with esthetic values of their ornaments such as stalagtit and stalagmite and other ornamental forms of flowstone (Worosuprojo, 2006).

The phenomena of superficial karst spread became the characteristics of the mountain which was the forms of conical karst that amounted to 40,000 objects. The superior karst object in the mountainous areas was represented by the segment of Mulo in which there were various forms and dimensions of the karst resulting from the erosion process of karstification. The karst segment was considered to be representative of the existing karst system in the district because of the big number, the variety of its landscape, including dolina, uvala, polje, dried valley, karst spring and lakes, and the natural phenomena under the surface of the caves.

The beaches of the district belonged to the karst of the mountain stretching from Ngobaran in west of Saptosari subdistrict to Sadeng beach in the east of Girisubo sub-district. In general, the morphology of the karst in the mountain was of the form of bay with sandy beach and steep mountain sides (Worosuprojo, 2006).

Menoreh Hill

Menoreh hill or mountain was a mountainous area stretching from northwest area of Kulonprogo district to the eastern area of Purworejo district and part of Magelang district, representing the natural boarder of the three districts. The mountainous area resulted from coral and not volcanic materials, stretching from Begelenarea to the north and reached the west area of Magelang City. The mountainous areas of Menoreh were well-known as the basis of the struggle of Diponegoro Prince and his followers in Java war that lasted for five years (1825-1830) against Dutch colonizer (Retrieved from id.wikipedia.org/wiki/pegunungan_menoreh).

Bengawan Solo River

The term bengawan in Javanese means big river. Bengawan Solo River was the longest one in Java with two upper streams coming from south mountainous area of Wonogiri and Ponorogo and ended in an orifice in Gresik. In the past, the river was called Wuluyu, Wulayu, and Semangi (Semangy in Dutch literature) of 17th century. Its length was about 548.53 km and flowed through two provinces, which were Central Java and East Java. It flowed through three districts, which were Wonogiri, representing the main upper stream in the catching area of Gajah Mungkur, Karanganyar, Ponorogo (the main upper stream of Madium catching area), Boyolali, Sragen, and Klaten. The central administrative areas included Sukoharjo, Solo, Ngawi, Madiun, Magetan, Blora, and Cepu. The lower stream administrative areas included Bojonegoro, Tuban, Lamongan, and Gresik.

Sewu Waterfall

Sewu waterfall represented one of the tourism objects in Tawangmangu village of Tawangmangu sub-district of Karanganyar district of Central Java province. It was a beautiful waterfall with typical mountainous atmosphere and became the main tourist object of the areas. It might be reached by walking the

footpath that has been hardened and neatly arranged of some hundreds meters.

The tourist object had the potential of natural resource of flora, including various species of plants such as pine, kaliandra, dammar, and casuarinas trees. Additionally, there were also fauna natural resources such as birds.

The Resulting Batik Motif Designs

Figures 1-12 show the batik motif inspired by temple, puppet, and the natural environment and so on.

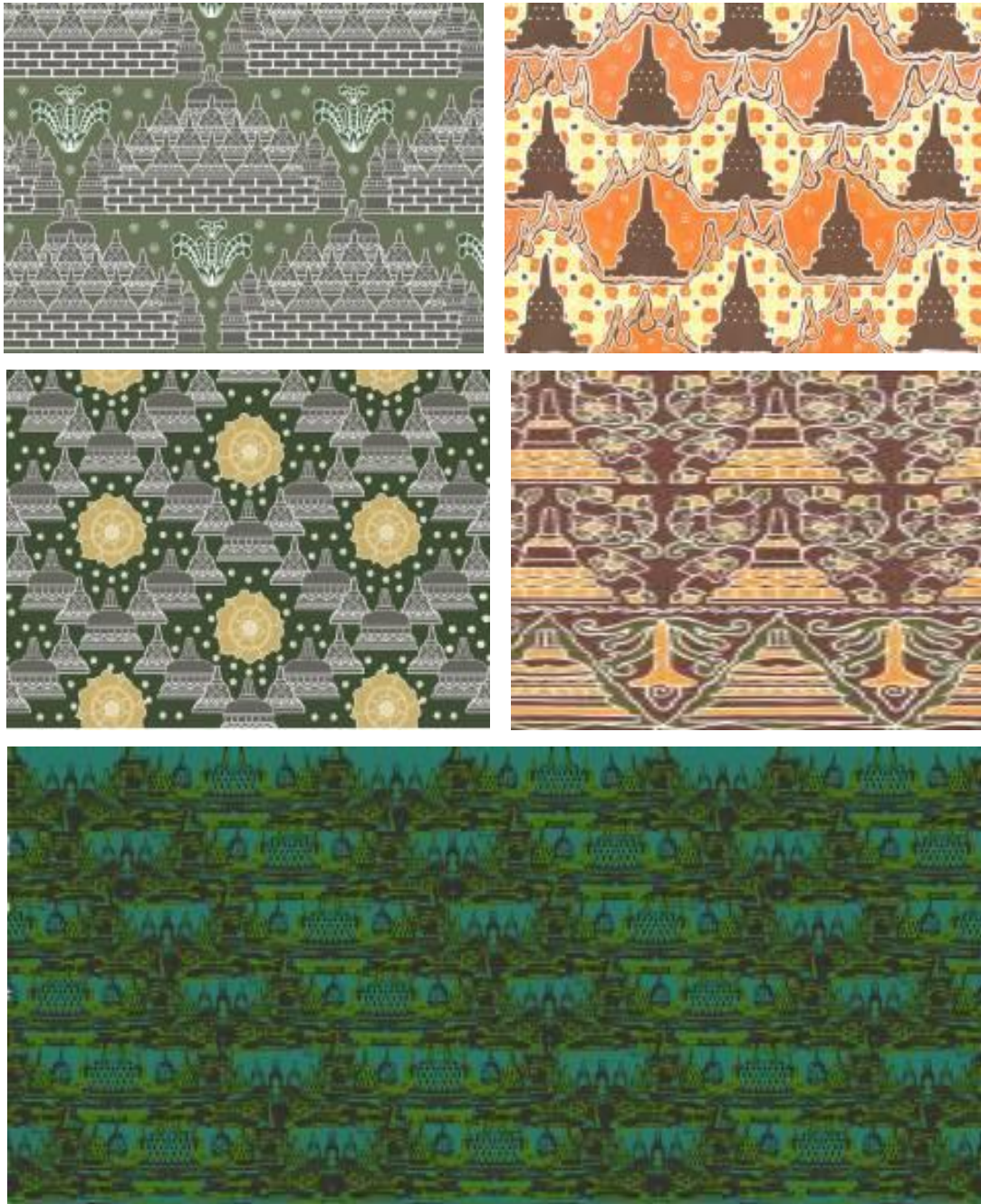


Figure 1. The batik motif inspired by Borobudur Temple.



Figure 2. The batik motif inspired by Prambanan Temple.



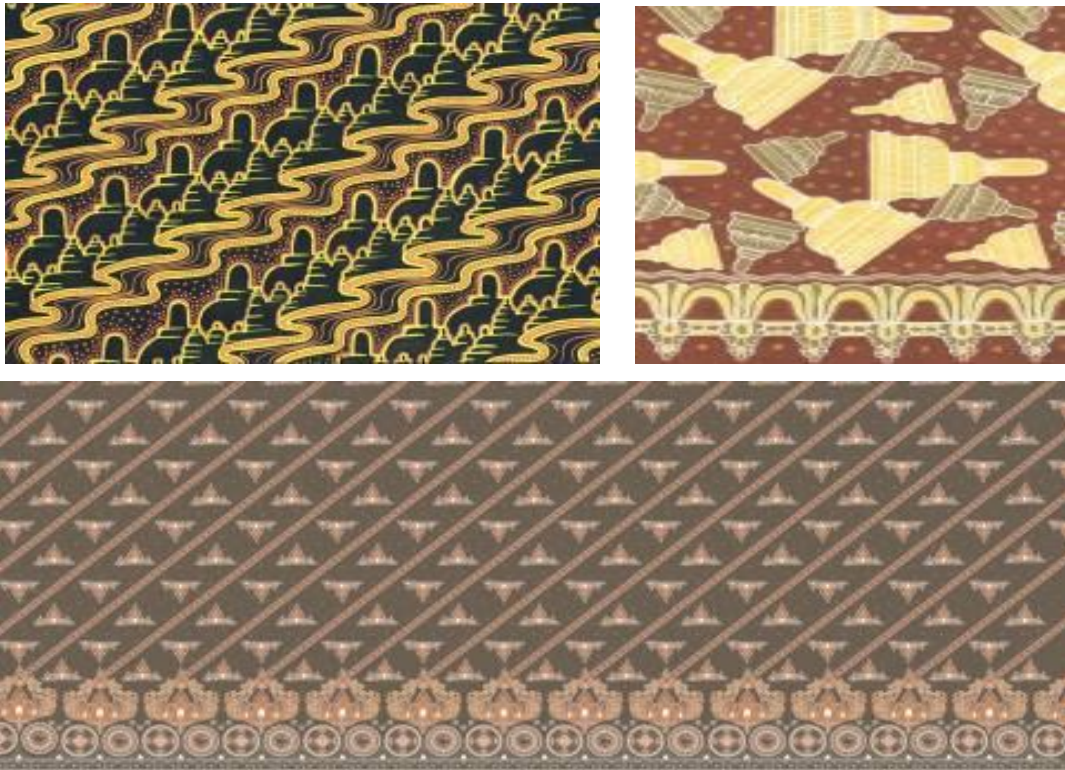


Figure 3. The batik motif inspired by Sewu Temple.



Figure 4. The batik motif inspired by keris of solo style.

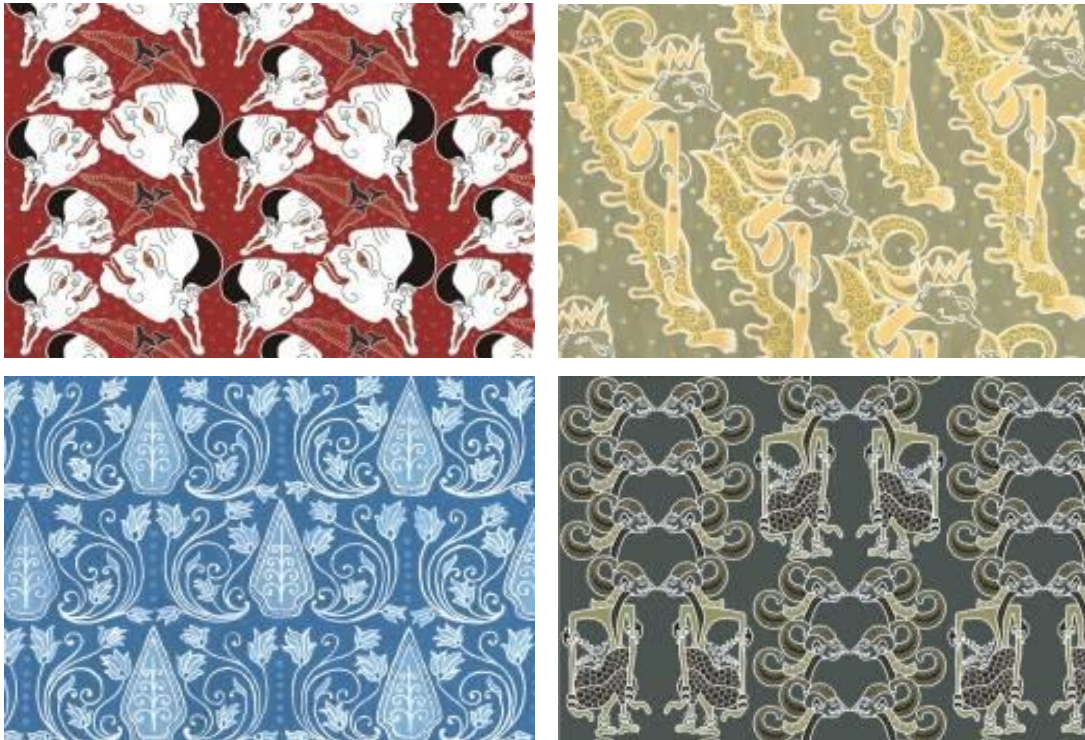


Figure 5. The batik motif inspired by leather puppets of solo style.



Figure 6. The batik motif inspired by Merapi Mountain.



Figure 7. The batik motif inspired by Code River.

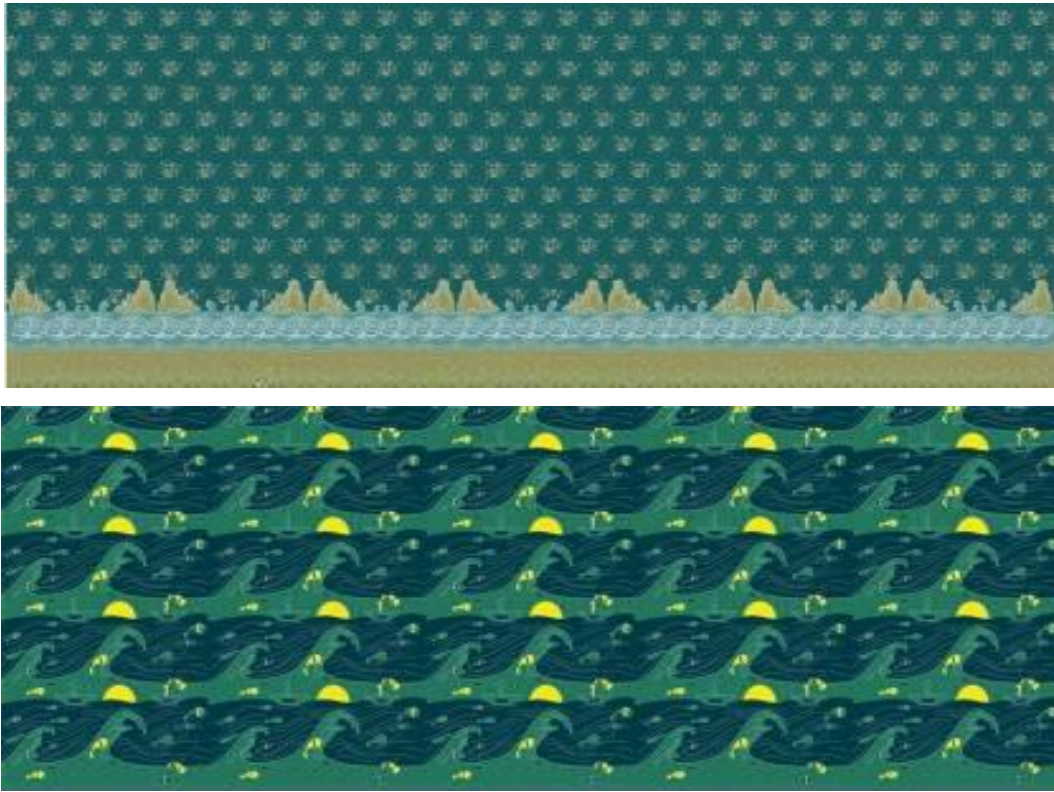


Figure 8. The batik motif inspired by Parangtritis Beach.

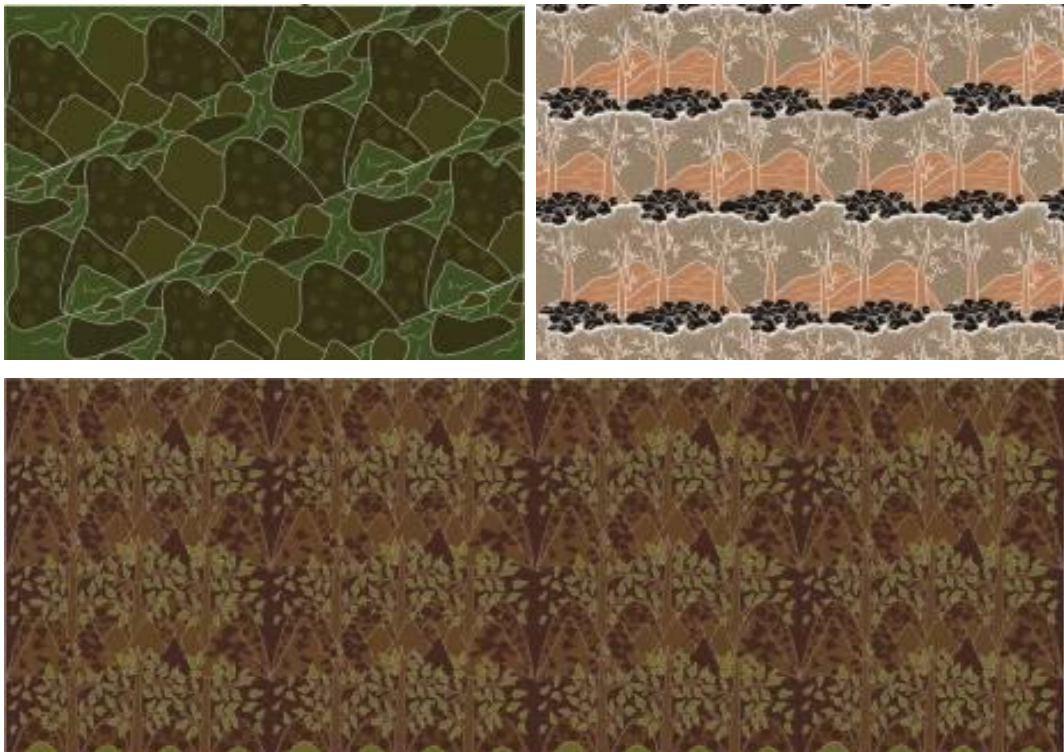


Figure 9. The batik motif inspired by Gunung Sewu Mountain.



Figure 10. The batik motif inspired by Menoreh Hill.

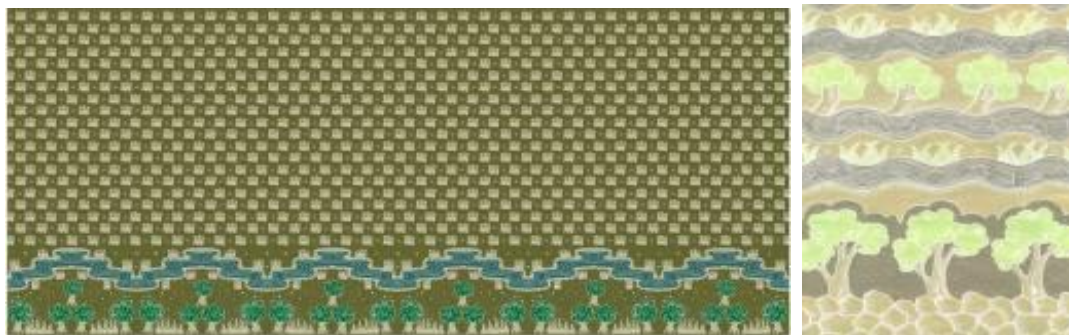


Figure 11. The batik motif inspired by Bengawan Solo River.



Figure 12. The batik motif inspired by Grojogan Sewu Waterfall.

Conclusions

The study was the implementation of the creativity in creating batik designs inspired by local cultural arts and natural environment of Yogyakarta, Solo, and so on. It was necessary to explore the local cultural arts as an effort to preserve the cultural identity of Indonesia. The local cultural arts of Yogyakarta and the surrounding areas included Borobudur temple, Prambanan temple, and Sewu temple, while the natural environment included Merapi Mountain, Code River, Parangtritis beach, Sewu Mountain, and Menoreh hill. The local cultural arts of Solo and the surrounding areas included keris and leather puppets, while the natural environment included Bengawan Solo River and Grojogan Sewu waterfall. The objects inspired the creation of new and creative batik motives.

Temples, keris, and leather puppets were proven to be very interesting elements that enabled further and inexhaustible exploration. The elements included forms, structure, and artistic styles. The data of the expressed manifestations included whole forms and the forms of the parts of the temples, the keris and the leather puppets, and their ornamental styles.

The new and creative batik motives were created based on photographs, image data, or other documentation that were subsequently focused on certain data and alternative sketches were made. The sketches were then selected and the designs were made. There were two methods in the creation of the new batik motives, which were manual (directly drawn using hands) and computer-aided drawing.

There were 159 batik motives resulting from the study that functioned as long cloth and clothing materials. All of the batik motives were in the batik patterns with defined scale that it would be easier to materialize them on cloth. They were arranged in various methods such as regular repetition, horizontal arrangement, vertical arrangement, diagonal arrangement (i.e., oblique lines), half-step, and full step shifting.

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