Flower and plant variants as abstraction in Javanese batik motifs from classical to contemporary era

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Abstract. Batik is one of the artworks of old Javanese society which has continued to exist and develop until the present day. In the 18th century, batik was a special type of clothing worn by the nobility, and there were even prohibitions for using batik clothing with certain types of motifs. Its basic substance is the ornamental images made on the fabric. A piece of cloth can change its position and value only because of a difference in decoration. As a visual aesthetic, batik is the work of Javanese artists, created by abstracting the surrounding natural environment, especially various flora, and fauna. Up to 1912, there were more than 100 names of flowers, leaves, and plants that were abstracted to become classical motifs. In the contemporary era, where batik has become more acceptable as clothing for the public, flora-based motifs are no longer the result of abstraction of particular flowers or plants but are considered more for their ornamental aesthetic. The aesthetic value of contemporary batik motifs is no longer determined by the type of flowers or plants abstracted, but by how they are represented for the beauty of clothing.

1. Introduction

The system of cultural values is the pinnacle of customs or behavioral habit achievement in a particular cultural area. It consists of conceptions that live in the minds of most members of the community. It also concerns things that should be considered of great value in life. This system serves as the highest guideline for behavior in the community to which it belongs [1]. In Javanese society, the achievement of the ‘highest guide to life’ is enshrined and endeavored to be passed on to the next generation in nuances of tradition, especially in the form of rituals, sèrat (scripts), pupuh or tembang (songs), rajah (magical drawing), primbon (time and space calculation patterns), and other ethnic artifacts. The basic characteristics of this traditional expression are always guided by the natural characteristics of the surrounding environment, from the level of the ecosystem to cosmological awareness.

Edward Shils, in the book Tradition, interprets the simplest and most basic level of tradition as traditum, which means anything which is transmitted or handed down from the past to the present [2]. Tradition is not just a series of events that can be seen in certain conditions, but an expression that can be understood over time, across generations [3]. In the introduction section of the book Art in Indonesia: Continuities and Change by Claire Holt, it is emphasized that in the context of culture, works of art are produced as the embodiment of awareness, to help understand the weltgefühl (feelings of the world) that are attempted to be conveyed. Hence, the forms of intellectual knowledge in its flow...
are not conveyed literally, and irrational expressions become the common expression of feelings instead. Artworks are perceptions and feelings that are revealed from their cosmology [4].

For the Javanese people, expression in the form of traditional works is never only of a single interest, but it also serves numerous functions and purposes. This is the underlying reason why prior to the year 1935, which marked the information entry of western modern aesthetics, beautiful works of Javanese ethnicity were not called "Art". Instead, they were known as Kagunan [5]. Kagunan is understood as an ethnic work with “multi-functional values.” It is not only a product of the creator's artistic expression, but it also has pragmatic function, symbolic messages, local wisdom values, spirit of togetherness, and awareness of the natural environment. As emphasized by Gadamer, there are no traditional artists from the past who produce works of art with any intention other than to be accepted in life along with them [6].

In the Javanese culture, there are many ethnic products that represent these multi-functional values, where the main feature reflects living together in awareness of the natural environment. The examples include pakêliran (the stage world of Wayang Purwa), gamêlan (traditional musical instruments), kêris (traditional Javanese weapon) and batik (Javanese fashion ornaments), all of which are full of signs of this connection. “Batik” is a work of Javanese tradition that has continued to exist and develop up to the present day. Conceptually, batik includes clothing products that were positioned exclusively as clothing for the nobility from the mid-18th century [7,8]. It is this exclusivity that has spurred creators to create decorative motifs that are not only visually beautiful but also contain meaningful messages. Batik motifs are also representations of proximity to the natural environment. Most of the various batik motifs that have ever existed, including those that have reached the level of "classical motifs" as pakêm (traditional patterns), and those that have continued to be explored as contemporary batik motifs, are the depictions of abstraction results of flowers, leaves, or plants that exist in the surrounding natural environment.

2. Methods
The study of cultural works regarding ideas and expressions always requires a contextual history of the space and time of their creation. Everything related to the background, media, process, atmosphere, and goals is an organic situation that represents a system of cultural intelligence. A work that is the result of a creator's artistic process is the actualization of an intention, which is built according to conditional and environmental considerations. The closer the proximity between the idea and the form, the easier it is to express what is referred to as the content.

Departing from the historical phenomenon of the traditional Javanese art object "batik", the series of representational events is a meaningful sequence of events. To explore and interpret this, an exploratory qualitative research method was used, supported by Erwin Panofsky’s Iconographical Analysis Theory. In his book, meaning in the Visual Art [9], the writer stresses that Iconographical Analysis must pass through three stages, which are prerequisites or a series of conditional relationships, in the sense that the first stage is a prerequisite for entering the second stage, and so on. These three stages are: 1) Primary or natural subject matter, 2) Secondary or conventional subject matter, and 3) Intrinsic meaning or content. The primary data sources used in this study include literature, pictures, old manuscripts, photo documentation, and batik products on the market today. The research locations include: the Showroom of PT. Batik Semar Solo-Indonesia, PT. Danar Hadi, and the center of batik trade in the city of Surakarta.

3. Discussion
The development of batik motifs cannot be separated from the two major kingdoms in Java that were established in the mid-18th century, namely Keraton Kasunanan Surakarta and Keraton Kasultanan Yogyakarta [10]. These two palaces, which ruled for almost 300 years, are considered to be the empires that brought several Javanese cultural products to a classical level [11]. Some of the batik motifs that developed during this time were designated as Classical Batik, which means they used classical batik motifs. Understanding classical batik in the context of Javanese culture is like
recognizing Javanese society as a whole and as it exists [12]. Everything depicted in batik is a reflection of what the Javanese have done, are experiencing, and aspire to. The simplicity of color, intricate ornamentation, variants of formation, precision of motifs, accuracy of form repetition, stylization & deformation patterns, symbols & meanings, and the abstractions of idea sources are natural intelligences that have been developed from generation to generation. The high respect for the heritage of ancestral works, loyalty to traditional aesthetics, and potential to be adaptive and flexible to changing times have all made batik acceptable and enabled it to keep developing up to the present time. Each stage of its creation is not a simple process [13]. Even the abstraction strategy of surrounding objects to create batik motifs is a 'high level' artistic process that is educated through natural talent and cultural customs.

In Javanese society, there were no formal batik educational institutions prior to the 20th century. However, during those past centuries, many batik motifs emerged which later came to be known as "classical batik motifs". This designation refers to the fact that classical motifs are visualizations of motifs that have reached the peak of their aesthetic presentation, and which then continue to be used and maintained for their authenticity. This also applies to the artistic process, in which the use of a canting, or pen filled with hot wax to create hand-drawn batik, cannot be replaced with another technique. Since hundreds of years ago, creators of Javanese batik have been able to arrange the stages of batik making in a clear and measured manner, both in technical and conceptual terms. The classification of motifs, patterns, isèn-isèn (background fillers), characterization of motif types, naming of motif patterns, and pragmatic functions in the form of clothing and their symbolization have reached pakèm from generation to generation [14].

A batik motif is the smallest unit of an ornamental image that already has a specific meaning. There are hundreds of types of motifs for the visualization of classical batik, starting from a dot, a collection of dots, the direction of a line of dots, various characters of line, various forms of field, to the stylization, deformation, and abstraction of forms of flora and fauna. A batik pattern is a 'formulation of batik ornamentation' that serves as a guide for replicating, developing, and referring to the name of the motif. There are two main groups of patterns in classical batik, namely geometric and non-geometric patterns. The geometric group can be further divided into two subgroups, namely the lèrèng or machete pattern based on oblique formations and the cêplok or cêplok'an pattern based on a geometric plane. The non-geometric group usually consists of motifs of flora, fauna, buildings, lar (a single wing), and sawat or mirong (two wings) [15]. These non-geometric patterns can be developed into a type of semèn pattern, from the word semè, which means to appear and grow; usually used to describe a type of creeper plant. A batik pattern is a decorative unit for designing batik, while a batik motif is the smallest decorative unit used as the subject matter of a pattern, so a motif is part of a pattern. Patterns in general are the result of repetition, arrangement, and formation of several motifs, but the general public has come to regard motifs and patterns as the same thing [10]. In general, the result of the repetition of a pattern, when it becomes a piece of batik cloth, is once again referred to as a motif.

3.1. Abstraction of flowers and plants as motifs in classical batik

Batik provides evidence that Javanese culture has a close proximity with its natural environment. Eco-art, which is one of the discourses in Contemporary Art [16], is no longer a new thing for the Javanese people, because Javanese culture is indeed built as a result of acceleration with its natural and cosmological environment. Likewise, the visualization of classical batik motifs is not only to beautify clothing or appearance but is also a reflection of its respect for the natural environment. On the other hand, it also shows that the names and forms of batik motifs, taken from the results of the abstraction of various types of local flowers and plants that grow on the Island of Java, are proof that the art of batik is indigenous knowledge of Javanese culture, as stated by the World Bank Staff [17].

The book De Inlandsche Kunstenijverheid in Nederlandsch Indië (The Native Arts and Crafts in the Dutch East Indies), written by J.E. Jasper and Mas Pirngadie [18], clearly maps the batik motifs that already existed in Javanese society before the book was published as listed in Table 1 and 2. Hundreds
of names of batik motifs and patterns are reviewed in this book, most of which refer to the names of local flowers and plants that grow on the Island of Java.

**Table 1.** Classical batik motifs from abstraction of flowers and plants.

| Fill Pattern Name for Background | Plant Names Referred |
|----------------------------------|----------------------|
| Bayêm Raja (King spinach)        | Amaranthus caudatus  |
| Béton Nongko (Jackfruit seeds)  | Artocarpus heterophyllus |
| Blarak Sa ‘irit (A coconut leaf) | Cocos nucifera      |
| Cacah Gori (Chopped young jackfruit) | Artocarpus heterophyllus |
| Camplung (Jackfruit placing)     | Artocarpus heterophyllus |
| Canthél (Sorghum)                | Sorghum bicolor      |
| Cépaka (Champaca flower)         | Magnolia alba        |
| Gêdêbog Pisang (Banana stem)     | Musa paradisiaca     |
| Grompol (Bunch of flowers)       | -                    |
| Karuk Jambu (Waterapple flower)  | Syzygium aqueum      |
| Kêmbang Cêmara (Fir flower)      | Casuarinaceae        |
| Kêmbang Cêngkéh (Clove flower)   | Syzygium aromaticum  |
| Kêmbang Ganggong (Taro flower)   | Colocasia            |
| Kêmbang Jati (Teak flower)       | Tectona grandis      |
| Kêmbang Jêruk (Orange flower)    | Citrus Sinensis      |
| Kembang Kol (Cabbage flower)     | Brassica Oleracea    |
| Kêmbang Krokoit (Purslane flower) | Portulaca Oleracea   |
| Kêmbang Lombok (Chilli flower)   | Capsicum frutescens  |
| Kêmbang Pakis (Fern flower)      | Polypodiopsida       |
| Kêmbang Pépé (Clover flower)     | Marsilea crenata     |
| Kêmbang Tiba (Falling flowers)   | -                    |
| Kêmbang Waru (Hibiscus flower)   | Hibiscus tiliaceus   |
| Manggaran (Coconut flower)       | Cocos nucifera       |
| Mélati (Jasmine flower)          | Jasminum             |
| Mlinjon (Melinjo fruit)          | Gnetum gnemon        |
| Pucuk Pat (Four-leaf bud)        | -                    |
| Pucuk Rêbung (Bamboo shoot)      | Bambuseae            |
| Pucuk Têlu (Three-leaf bud)      | -                    |
| Rambutan (Rambutan fruit)       | Nepheleum lappaceum |
| Tapak Dara (Pink periwinkle flower) | Catharanthus roseus |
| Têbu Sakêrêt (Segment of sugar cane) | Saccharum officinarum |
| Ucêng-ucêngan (Root shoots)      | Creeping plant       |
| Ukêl (Rise flower)               | Oryza sativa         |
| Ulêr-ulêran (Twig shoots)        | Creeping plant       |

**Figure 1.** Kembang Gambir Motif  
Source: [18]

**Figure 2.** Kembang Waru Motif  
Source: [18]
Table 2. Classical batik patterns of abstraction from flowers and plants.

| Pattern names                                      | Plant Names Referred             |
|---------------------------------------------------|----------------------------------|
| Cêplok Bayêm (Geometrical pattern of spinach)      | Amaranthus                       |
| Cêplok Bintarum (Geometrical pattern of sea mango) | Cerbera manghas                 |
| Cêplok Ganggong (Geometrical pattern of Taro)      | Cryptocoryne ciliate             |
| Cêplok Gori (Geometrical pattern of jackfruit)     | Artocarpus heterophyllus         |
| Cêplok Kêlan (Geometrical pattern of vegetable)    | -                                |
| Cêplok Kênari (Geometrical pattern of walnuts)     | Canarium vulgare                 |
| Cêplok Manggis (Geometrical pattern of mangosteen) | Garcinia mangostana              |
| Cêplok Mlinjo (Geometrical pattern of melinjo)     | Gnetum gnemon                    |
| Cêplok Mundu (Geometrical pattern of sweet garcinia)| Garcinia dulcis                  |
| Cêplok Pala (Geometrical pattern of nutmeg)        | Myristica fragrans               |
| Cêplok Sawo (Geometrical pattern of sapodilla)     | Acrhus zapota                   |
| Cindé Kênanga (Pattern of ylang-ylang flower)     | Canrangium odoratum              |
| Gambir Anom (Pattern of young gambier fruit)       | Uncaria gambir                   |
| Gambir Sakêti (Pattern of thousands of gambier fruit)| Uncaria gambir                  |
| Gambir Savit (Pattern of gambier palm)             | Elaeis guineensis               |
| Jambé Copot (Pattern of broken betelnuts)          | Areca catechu                    |
| Jamblang (Pattern of java plum fruit)              | Syzygium cumini                 |
| Jangglèng (Pattern of tea leaf)                    | Tectona grandis                 |
| Kawung (Pattern of sugar palm fruit)               | Arenga pinnata                  |
| Kêmbang Blimbing (Pattern of starfruit flower)     | Averrhoa carambola               |
| Kêmbang Cêngkêh (Pattern of clove flower)          | Syzygium aromaticum             |
| Kêmbang Gambir (Pattern of gambier flower)         | Uncaria gambir                   |
| Kêmbang Jambu (Pattern of waterapple flower)       | Syzygium aquaeum                |
| Kêmbang Jêruk (Pattern of orange flower)           | Citrus sinensis                  |
| Kêmbang Kapas (Pattern of cotton flower)           | Gossypium obtusifolium           |
| Kêmbang Kênikir (Pattern of Cosmos flower)         | Cosmos caudatus                  |
| Kêmbang Kêntang (Pattern of potato flower)         | Solanum tuberosum               |
| Kêmbang Manggis (Pattern of mangosteen flower)     | Garcinia mangostana              |
| Kêmbang Mindi (Pattern of chinaberry flower)       | Melia azedarach                 |
| Kêmbang Pépé (Pattern of pennywort flower)         | Hydrocotyle javanica             |
| Kêmbang Pijêtan (Pattern of langsat fruit)         | Lansium aquaeum                 |
| Kêmbang Randu (Pattern of kapok flower)            | Ceiba pentandra                 |
| Kêmbang Ranti (Pattern of eggplant flower)         | Solanum melongena               |
| Kêmbang Waru (Pattern of hibiscus flower)          | Hibiscus tiliaeus               |
| Köpi Pécah (Pattern of broken coffee)              | Coffea                           |
| Kulit Kacang (Pattern of peanut shells)            | Arachis hypogea                  |
| Lung Girang (Pattern of elder leaf)                | Sambucus nigra                  |
| Mêlati Sêlangsang (Pattern of a strand of jasmine)| Jasmum                           |
| Puspa Tanjung (Pattern of lotus)                   | Nymphaea alba                    |
| Salak Satêgal (Pattern of a full garden of snakefruit)| Salacca zalacca                |
| Sêkar Kacang (Pattern of peanuts flower)           | Arachis hypogaea                 |
| Lërèng Kêmbang Manggar (Oblique pattern of coconut flower)| Cocos nucifera                  |
| Lërèng Kêmbang Pépê (Oblique pattern of clover flower)| Marsilea crenata               |
| Parang Canthêl (Oblique pattern of sorghum)        | Sorgum bicolor                  |
| Parang Kàntil (Oblique pattern of magnolia)        | Michelia alba                    |
| Parang Pakis (Oblique pattern of fern)             | Polypodiopsida                  |
| Parang Ukél (Oblique pattern of rice flowers)      | Oryza sativa                     |
| Parang Tanjung Tirta (Oblique pattern of lotus)    | Nymphaea alba                    |
| Sêmèn Anggur (Growing pattern of grapes)           | Vitis vinifera                  |
| Sêmèn Gabah Sinawur (Growing pattern of scattered rice)| Oryza sativa                   |
| Sêmèn Kêmbang Asêm (Growing pattern of tamarind flower)| Tamarinus indica               |
| Sêmèn Kêmbang Blimbing (Growing pattern of starfruit flower) | Averrhoa carambola              |
| Sêmèn Kêmbang Gambir (Growing pattern of gambier)   | Uncaria gambir                  |
Sêmen Kêmbang Manggar (Growing pattern of coconut flower)  Cocos nucifera
Sêmen Kêmbang Pênjalin (Growing pattern of rattan)  Calamus subinermis
Sêmèn Paléman (Growing pattern of palm tree)  Borassus flabellifer
Sêmèn Pisang Bali (Growing pattern of balinese banana)  Musa paradisiaca
Sêmen Kêdondong (Growing pattern of amarella)  Spondias dulcis
Sêmèn Kipas (Growing pattern of fan banana)  Revenala madagascariensis
Sêmèn Lombok (Growing pattern of chilli)  Capsicum frutescens
Sêmèn Mlinjo (Growing pattern of melinjo)  Gnetum gnemon
Sêmen Pêtê (Growing pattern of stink bean)  Parkia speciosa
Sêmèn Tiuki (Growing pattern of carnation)  Dianthus caryophyllus
Lung Bêntul (Leaf pattern of taro)  Caladium bicolor
Lung Gadung (Leaf pattern of three-leaved yam)  Dioscorea hispida
Lung Kêdawung (Leaf pattern of tree bean)  Parkia javanica
Lung Kêmbang Bêstru (Leaf pattern of sponge gourd flower)  Luffa cylindrica
Lung Kênari (Leaf pattern of walnuts)  Canarium vulgare
Lung Kênikir (Leaf pattern of cosmos plant)  Cosmos caudatus
Lung Kroko (Leaf pattern of purslane)  Portulaca oleracea
Lung Pakis (Leaves pattern of fern)  Polyophyldesida
Lung Sêmanggi (Leaf pattern of pennywort)  Hydrocotyle javanica
Lung Waluh (Leaf pattern of pumpkin)  Cucurbita pepo

Based on the table above, the creators of Javanese batik art in the past had a deep sense of proximity to their surrounding natural environment. Numerous kinds of flowers and plants can be abstracted in forms that ‘surpass’ even the rules of Modern Aesthetics. Various kinds of flowers, Figure 1 and 2 for example, which may not appear beautiful, or even be considered as flowers, but only as ovules, can be abstracted into exotic and unique ornamentation of batik motifs. It is the result of intuitive sensitivity that can turn an unattractive flower or plant into a beautiful form on a piece of batik cloth. The strategy for visualizing classical batik is not to borrow objects that are already beautiful, but rather to process something ordinary, which is not even considered attractive, to become something beautiful and interesting.

3.2. Floral and plant motifs in contemporary batik

Historically, Javanese batik began to experience a shift in position when it entered the economic area. Batik, which was originally a symbol of the aristocratic class, underwent a shift to become a clothing need of the rich in general [19]. When the demand for batik cloth from abroad began to increase, especially from the Netherlands and other parts of Europe, craftsmen began to use a batik stamp technique to accelerate the manufacturing process. This technique, which is used instead of canthing, is thought to have emerged around 1840 [20,21]. Since then, the contemporization of batik motifs has become increasingly massive, although this phenomenon only occurs in large-scale batik producers. At the level of small artisans, even in the Keraton (palace), batik craftsmen remain loyal to the canthing technique to preserve the classical character of traditional batik.

Entering the 20th Century, the world of Javanese batik motifs experienced a rapid development and various techniques were implemented to obtain optimal results, both through variants of creation techniques and the visualization of new themes and motifs. Batik orders from the Netherlands also shifted preference towards a display of ornamental forms or themes, and a Dutch-style batik motif called batik bouquets was born [21]. The enrichment of variants of batik motifs also increased with the arrival of Japanese colonialism in Indonesia in the 1940s. Several new thematic motifs emerged because of the influence of Japanese style, which were subsequently referred to as Hokokai batik, which includes the motifs of morning-afternoon, hibiscus flowers, and swastikas. The influence of Chinese style also continued, including the phoenix, peacock, and lion (dragon) [8,22].

In the 1980s, the contemporization of Javanese batik experienced a tremendous boom, and even developed into National batik. Several official government events, both on a national and international level, used batik as their formal attire. This boom was supported by the introduction of machine
Technology in the batik creation process which enabled 'printed batik' to be produced in a very short time. Although in terms of aesthetic quality, this product is merely a work of kitsch or imitation art. The direct impact of this is that members of the lower class can afford to own it.

The visualization of contemporary batik motifs no longer takes the source of the idea of a particular flower or plant name into consideration as exemplary at Figure 3 and 4. Although the shapes of flowers and plants are portrayed more naturally and realistically, they do not refer to a specific type of flower or plant. This representation is indeed more beautiful and interesting as ornamentation for clothing in the current era. Every part is filled with stylization and deformation of flower petals or stems, twigs, and leaves. Visually, the aesthetic is no less attractive than that of classical batik motifs, but when examined closely, this type of representation aims to fulfill the aesthetic of the clothing. It is not the result of proximity to and concern for the surrounding natural environment.

Figure 3. Ngunduh Sêkar Motif. Source: Collection of PT. Batik Semar Solo Indonesia.

Figure 4. Combination of parang, flora and bird motifs Source: Collection of PT. Danar Hadi

The concept of Sustainable Product Design demands a synergy between the potential of a culture and its natural environment [23]. The contemporization of batik in this latest phenomenon shows the openness of the boundaries of classical batik motifs, with the consequence that the symbols and their meanings decline to the denotative area [11], in which the contemporary motifs that appear on the market experience a loosening of their normative boundaries. It is undeniable that the existence of batik is not only a matter of art and culture but has also long contributed to the socio-economic conditions of the Javanese people in particular [24].

This does not mean that the classical pakêm motif has been abandoned in the contemporary era, but rather has been exploited in a new form to pursue the beauty of its visualization. Classical batik motifs are used in a sectional format and combined with new creative motifs that are freer and more attractive. Some of the indications of the visual form of contemporary batik motifs are:
1) Representation of the motif is not an abstraction of the name of a particular flower or plant.
2) Visualization of floral and plant motifs for aesthetic ornamentation of clothing.
3) Potential for elaboration of classical motifs in contemporary batik motifs.
4) Combination of classical batik patterns and contemporary motifs.
5) Degradation of symbols and meanings of classical batik motifs to aesthetic functional interests.
6) Philosophical values of classical motifs are not the main consideration in contemporary batik.
4. Conclusion
Understanding the world of Javanese batik motifs is not only a matter of how to manage the media of a piece of white cloth to become a beautiful item of clothing. Javanese batik motifs, especially those that have been culturally defined as pakêm, have a strong background of anthropological and sociological values. Creators of Javanese batik motifs can abstract various types of flowers and plants from the surrounding natural environment into attractive visual forms. In many times, the visual representation even surpasses the rules of Western Aesthetics, and the scale of stylization, distortion, and deformation of shape are simply mesmerizing. Various types of flowers and plants can be abstracted to become unique yet exotic motifs. The ability to do this is not learned through formal education, but rather acquired by means of natural talent and cultural customs. Traditional aesthetic experience and awareness of parts of nature enable these artists to abstract the appearance of flowers or plants that are not beautiful to become something of high aesthetic value. The key to success is not a matter of technical visualization, but the awareness that the process of creating traditional works of art is part of the flow of nature.

There is a tendency for contemporary batik motifs to differ, in that the visual representation does not unite creative power with natural characteristics. Various images of flowers and plants in contemporary batik motifs do not refer to the names of flowers or plants, but merely visualize the impression of flowers or plants with the aim of creating ornamentation for clothing. Contemporary batik has carried a natural tradition in a more profane and pragmatic direction. The motifs represented are not a tribute to nature, but rather a form of exploration of the potential of natural beauty for the sake of the aesthetic of clothing.

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