

The Design of Samarinda Batik Motif Through Semiotics Approach and Cultural Study

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Abstract—Batik is an Indonesian cultural heritage that is already global and characterizes Indonesian society. In each batik motif has a meaning content. The meaning in a sign is also called semiotics. The plan to move the state capital of Indonesia to East Kalimantan has brought some changes, one of which is in the field of batik. The introduction of the East Kalimantan area, especially the Sungai Pinang district which has natural, tourism and religious resources, is also a solution to introduce the prospective capital city of the country. The purpose of making the batik motif development in Sungai Pinang District is as a solution to the problem of introducing the national capital area. With quantitative methods and semiotics analysis, a batik design was made in the Sungai Pinang sub-district. Based on questionnaire data obtained 5 designs of new batik motifs in Sungai Pinang sub-district which were obtained by exploring historical data of history, tourism, natural resources of the Sungai Pinang area in particular and East Kalimantan in general. The hope of developing this new batik is that it can be used as a medium for tourism promotion, to increase the income of Samarinda batik craftsmen during the Covid 19 pandemic.

Keywords—state capital of Indonesia, sub-district Sungai Pinang East Kalimantan, smiotics, batik development, tourism promotion

I. INTRODUCTION

Batik art is a local cultural heritage of Indonesia that has high artistic value and a value of local wisdom [1]. Batik has been a part of Indonesian culture for a long time. It is not only known and sought-after by the domestic community, but also foreign communities. Therefore, it is not surprising that Indonesian batik motifs are famous in foreign countries and become a fashion trend.

Motifs are the basic element in batik because, in every batik, motifs are the points of interest. Many things can be learned from batik motif design, such as the cultural background, beliefs, customs, the natural environment, the spiritual, etc. [2]. Although batik motifs have experienced cultural development and acculturation [3], batik motif did not

shift the meaning and did not eliminate the characteristics of the batik itself which had traditional values and philosophical meanings [4-7]. Semantics is the study of meaning, or more precisely, the study of the relation between linguistic expressions and their meanings [8,9]. Different from the definition of semantics, in the study of semiotics, visual language can also be observed as a sign system, both single sign and set of signs [10]. The existence of Indonesian batik is greatly supported by the development of batik itself both in terms of the unique motifs, coloring, symbolic meaning contained, and the price of batik on the market. Motif batik design will be better if they have an attractive design, a meaning sign, and especially they can represent the taste of the customer.

Samarinda as the capital of East Borneo province has many districts, one of them is the Sungai Pinang district. Sungai Pinang district has many cultures, such as the history of the district, the natural resources, the human resources, the religion, the artwork, the tourism, etc. The design which is directed by emotional content can be considered as the heart of current design practices, research, and education [11]. This paper explores the perception of batik users using the semiotic semantic method, evaluating actual users' perception of the visual elements such as color, semiotic of motif batik as the object of the study. The obtained data used to identify the creative process of batik is hoping to gain applicable knowledge for the preservation as well as a new development of Sungai Pinang District batik design.

II. LITERATURE REVIEW

A. Semiotics and Semantics

Product design has a purpose or a meaning, both for designers or users. Successful products must be able to inform the designers and users' desires, also to evoke the users' attraction. Semiotics is the study of signs and semantics is the study of their meaning. The emotional content of the design product is more important for Ergonomics and Design Science

[11]. Product semantics was developed and introduced by Krippendorff and Butter [12] and is defined as the study of symbolic qualities of man-made shapes, in the cognitive and social context of their use. Krippendorff's wrote, product semantics describes the relationship between user and designer, shown figure 1 [13]. Six factors in the semiotics of communication are the sender, receiver of code, message, communication channel, and reference, emphasize the theory of signs and their understanding in a certain context. Semiotics of significance emphasizes the understanding of a sign [14].

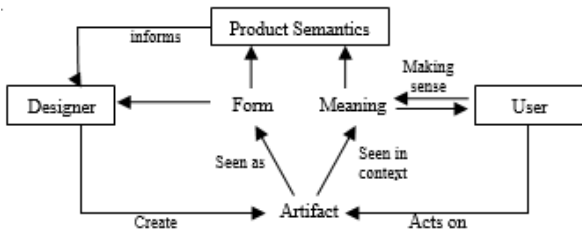


Fig. 1. Krippendorff's proposed model of the relationship between users and designer [13].

There are two different reactions to the process of applying the semantic content of a new, the first reaction is based on knowledge and dependent on social and cultural background, and the second reaction is user emotional. The emotional response is an automatic response to our thoughts related to the situation or object that we have seen figure 2 [11].

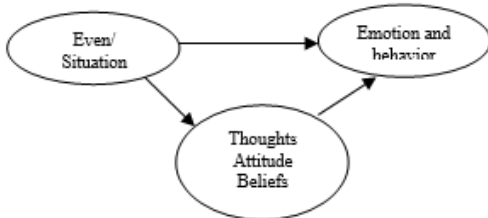


Fig. 2. Emotional respon flow [11].

B. Relocation of the Capital and Cultural Value

Every batik design implies a meaning. Batik is a hereditary culture. Traditional batik is batik whose motive is bound by certain rules that must be obeyed and with certain isen, for example Batik Kerokan, Batik Jumputan, Batik Becak and others. Meanwhile, modern batik is a development of traditional batik where modern batik has a motif that is not bound by certain rules and certain isen. Modern batik is free and independent. For example, abstract batik motifs, painting motifs, regional cultural motifs, inspired by regional natural resource motifs, tourism, or inspired by the social structure of the community in an area.

President Joko Widodo in 2019 decided that the capital city of Indonesia would move to East Kalimantan to be precise in parts of North Penajam Paser Regency and parts of Kutai Kartanegara Regency in East Kalimantan. This has had a major impact on various sectors, one of which is in the culture and tourism sectors. In the field of culture and tourism, one of

which is the development of the capital's batik motif which will later become the characteristic of the capital city of Indonesia.

Currently there are many batik designs in the new capital with regional characteristics of East Kalimantan. Based on news of liputan6.com, the capital's batik will have characteristics adopted from East Kalimantan culture, such as the use of bold colors but still pleasing to the eye, a symbol of the tree of life, characterized by Kalimantan flora and fauna and the form of a statue. The planned relocation of the capital is also an opportunity to develop new batik designs. The new batik designs will add to the diversity of batik in Indonesia [15].

The visual images are according to the experts stated as the semiotic signs have been successfully brought the messages to the person who saw it and understandable enough to interpreted by the addressee [16-18]. Attractive batik has 2 main components, both line and color [19]. The perception of color is often influenced by emotional conditions and psychic someone [20]. Batik patterns are often inspired by natural conditions, the environment, philosophy, knowledge, customs, and local elements that are unique to each region [20]. Figure 3 shown "Pucuk Bunga Taman: and Figure 4 shown "Anggrek Hitam suku Dayak Modang" are examples of the many existing East Kalimantan motifs resulting from the exploitation of existing culture and natural resources [21].

The examples of batik motif that can be developed as new motifs Capital of Indonesia, shown in figure 5. The batik of East Kutai Regency has motifs of ferns, black orchids, clubs, roots, hornbills, mbui birds and seated banyan birds. This motif resembles the flora resources in the Kalimantan forest. Batik development can also be done based on regional characteristics. As shown in figure 6, Development of Batik with the theme of the oldest mosque in Samarinda, East Kalimantan. Blue color symbolizes peace in religion, the red color on the tendrils symbolizes courage, strength and energy, as well as a passion for action, and symbolizes joy. The tendrill motifs symbolize the flora of the Kalimantan forest.



Fig. 3. Motif Kalimantan Timur "Pucuk Bunga Taman" [21].



Fig. 4. Motif Kalimantan Timur "Motif Anggrek Hitam suku Modang" [21].



Fig. 5. Motif batik Kutai Timur [15].



Fig. 6. Motif batik Masjid tertua di Samarinda, East Kalimantan.

III. METHODS

This study uses a qualitative method with an ethnographic approach with semantic categorization based on the semiotics of the object to be studied. This semantic categorization is influenced by narrative semantics, a semantic value of a product. Ethnography is a qualitative strategy in which the researcher studies an intact cultural group in a natural setting over a prolonged period of time by collecting primarily observational and interview data [22].

A. Sample

The sample in this study were people with an age range of 20-50 years, 60 respondents. They were divided into 10 small research groups.

B. State of Art

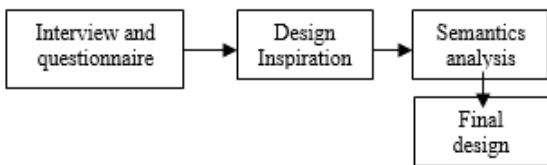


Fig. 7. State of art research.

1) *Interview and questionnaire*: The first step in the interview 1 is to collect words which are the attributes needed in designing a batik [16,23]. The second step is to interview users to find out their responses based on semantic

categorization formulas. The results of the interview will be recorded as reference data in bringing up batik attributes [24]. Due to the Covid-19 pandemic period, which did not allow researchers to interact with many people, interviews were conducted online by giving essay questions to 50 users via google forms link. Then, Input data from users in steps 1 and 2 are grouped into design attribute groups.

2) *Design inspiration*: an important part of any product design activity is the inspiration process. A creative design comes from a combination of analytical, inspirational and creative thinking [2,25,26]. Source of inspiration is possible for designers to build associations of ideas by applying the principles of equality, contrast, and closeness as well supported by a source of inspiration [27], Based on this, the researcher focused the research on the Sungai Pinang district as the object of research. The highlights are about the history, culture, natural resources, tourism and symbols of the area. Sources of inspiration is collected through a deliberate information search effort carried out to meet the specifications.

IV. FINDING AND DISCUSSION OF RESULTS

The research results reveal that there are several factors that contributed to Sungai Pinang batik design as shown in Table. 1. The contributing factors are grouped by semantic categories. They are described as follows:

TABLE I. INTERVIEW RESULT

No	Semantic categories	Interview Result
1	Emotional Semantics	The Kaltim's Sulus motif, pucuk rebung are known both nationally and internationally
2	Empirical Semantics	The colors that characterize East Kalimantan are red, black, yellow and white, but does not rule out all the attractive colors
3	Cognate Semantic	Curved lines and dotted line represent the flow of river water
4	Contextual Semantics	The Pinang tree symbolizes the natural resources that are found in Sungai Pinang sub-district
5	Functional Semantics	Batik is usually used formally and officially so it must have an elegant design and color
6	Evaluative Semantics	Batik use cool materials; fabric is not stiff and absorbs sweat
7	Cultural Semantics	The Sulus motifs characterize East Kalimantan, Vihara Maitreya, the largest Buddhist Center in Southeast Asia, as a symbol of spiritual tourism, Pinang Tree and the river to be a symbol of regional geography

A. Final Design

The visual elements of the Sungai Pinang batik motif were analyzed based on semiotics which includes three things:


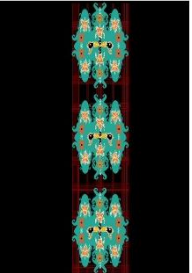



1) *Syntaxis*: Is an activity which studied the sign inside another sign system that is shows similarity or continuity.

2) *Semantic*: Studying the relationship between signs and their meanings or denotations and connotations of these signs.

3) *Pragmatics*: Studying the relationship of the sign with the wearer.

The results of the analysis are described in table 2 below:

TABLE II. SEMIOTIC ANALYSIS OF BATIK SUNGAI PINANG DISTRICT

Motif	Syntactic Analysis	Pragmatic Analysis	Semantic Analysis
<p>1. Sungai Pinang 1</p> 	<ul style="list-style-type: none"> Color: Tosca (dominant), green, yellow, black, red and white Main Motif: River Additional motif: Areca tree, Forest fern (sulur of Pakis), Balo Hatta sarong Background (isen-isen): river flow 	Peace and unity	<ul style="list-style-type: none"> The white line represents the flow of the river Trees showing areca trees that grow around rivers. Forest fern (sulur of Pakis) symbolizes the icon of East Kalimantan which also means the flexibility of the community in helping each other Ballo Hatta sarong represents Samarinda The flow of the river implies that the people of Sungai Pinang sub-district must be united, peaceful and keep filling their lives by maintaining the green nature of the earth in East Kalimantan
<p>2. Sungai Pinang 2</p> 	<ul style="list-style-type: none"> Color: black (dominant), tosca, white, orange, yellow. Main motif: Areca leaf Additional motif: Enngang' beak (the beak of hornbill), Forest fern (sulur of Pakis), Balo Hatta sarong, beak Background (isen-isen): river flow 	Assertiveness, friendliness, a role model	<ul style="list-style-type: none"> Black symbolizes assertiveness and the good attitude of the people in doing their daily life. A pair of hornbill beak means one' friendliness to each other Forest fern (sulur of Pakis) represents the flora in borneo island Ballo Hatta sarong characterizes Samarinda
<p>3. Sungai Pinang 3</p> 	<ul style="list-style-type: none"> Color: Navy (dominant), tosca, white, orange, yellow. Main motif: areca leaf Additional Motif: Enngang' beak (the beak of hornbill), Forest fern (sulur of Pakis), beak, Bamboo shoots (pucuk rebung) Background (isen-isen): river flow 	Prosperity and luck	<ul style="list-style-type: none"> The color of areca leaf symbolizes the plants and hopes. It is hoped that, someone who wears it will preserve the green nature of Samarinda The wave of the river flow symbolizes even though the current life is tough, someone who wears this batik cloth are expected to be prosperous and lucky to continue flowing to the user.
<p>4. Sungai Pinang 4</p> 	<ul style="list-style-type: none"> color: Black (dominant), white, orange, yellow. Main motif: Forest fern (sulur of Pakis) Additional motif: Areca tree, hornbill (enggang), Sulur, background/isen-isen: river flow, transparent sulur 	Elegant	<ul style="list-style-type: none"> It is hoped that someone who wears this will achieve success as high as the areca tree, and has a huge long-lasting fortune li ke a river flow.
<p>5. Sungai Pinang 5</p> 	<ul style="list-style-type: none"> color: Red, brown, balck, gold main motif: vihara Maytree Additional motif: fern tendril (sulur) bamboo shoots (pucuk rebung) background/isen-isen; fern tendril of Samarinda 	Respect each other	<ul style="list-style-type: none"> the color of areca tree symbolizes plants and hopes It is hoped that, someone who wears it will preserve the green nature of Samarinda The wave of the river flow symbolizes even though the current life is tough, someone who wears this batik cloth are expected to be prosperous and lucky to continue flowing to the user.

In designing a piece of batik fabric has complex meanings, ranging from the meaning of explicit, i.e. meaning based on what (denotative), as well as the meaning of deeper, relating to

the with ideological understandings connotative [28]. Table 3 describes the meaning implied in 5 batik designs of Sungai Pinang sub-district designed based on semantic analysis.

V. CONCLUSION

The signs in Batik sub-district of Sungai Pinang are a number of signs containing relationship elements as a story concept that describes the character, natural resources, culture and tourism of area in the sub-district of Sungai Pinang.

Based on the above discussion, it was produced 5 batik designs that fit the concept of semantics. From the results of these five designs are expected to be characteristic of the region and can be promotional materials as well as souvenirs in the tourism sector.

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