



CATHARSIS 12 (2) 2023
117-127

p-ISSN 2252-6900 I e-ISSN 2502-4531

Catharsis: Journal of Arts Education

<http://journal.unnes.ac.id/sju/index.php/chatarsis>



Batik Semarang on Cultural Ecology Perspective: Characteristic of Visual Expression

Noor Tiara Habib Aisyah Intan ✉, **Eko Sugiarto**, **Wandah Wibawanto**
tiaraisyahintan@students.unnes.ac.id

Universitas Negeri Semarang, Indonesia

Received 15 May 2023, Accepted 22 July 2023, Published 15 September 2023

Abstrack

Batik is a traditional textile work of art which was designated by UNESCO on 2 October 2009 as an intangible cultural heritage (representative List of the Intangible Cultural Heritage of Humanity). This research aims to analyze the characteristics of Semarang batik based on cultural ecology, especially the Semarang icon category, the case study of this research is at IKM Batik Semarang 16. This research is qualitative research, in this research uses several theoretical approaches, namely a visual analysis approach with color theory and design principles for analyzing the visual elements in batik motifs. Apart from using a visual analysis approach with color theory and design principles, a cultural ecology approach will also be discussed to discuss the cultural ecological aspects found in batik motifs, especially in the Lawang Sewu Ngawang, Mberok Bridge, Tugu Muda Kekiteran Sulur, and Blekok Srongol motifs. The cultural ecology approach is used to understand the complex relationship between humans, culture and the environment in the context of batik production and use in the city of Semarang, Central Java. The results of this research show that the characteristics of batik work from IKM Batik Semarang 16 of the five motifs have bright, dominant colors. line elements, decorations do not experience too much composition, either distortion or stylization. The cultural ecology aspect of batik by IKM Batik Semarang 16 refers to certain themes and categories and represents Semarang from a natural, physical and socio-cultural perspective.

Keywords: Semarang Batik, Characteristics of Batik Motifs, Cultural Ecology

DOI : [https:// DOI 10.15294/catharsis.v12i2.76364](https://doi.org/10.15294/catharsis.v12i2.76364) to this article

INTRODUCTION

Batik is a traditional textile work of art which is an intangible cultural heritage (representative List of the Intangible Cultural Heritage of Humanity) in accordance with the designation by UNESCO in 2009 on October 2 (Aprianingrum et al., 2021). With the designation of batik as an intangible cultural heritage, Indonesian batik is an intangible cultural item belonging to the Indonesian people which cannot be claimed by other countries as its owner. This is to protect cultural heritage and increase awareness and motivate people at local, national and international levels about the importance of intangible culture (Widadi, 2019).

Initially, batik was only used in the palace environment to show the presence of the palace elite by wearing the resulting works of art. Then the development of batik outside the palace experienced a rapid increase, starting with batik as an individual need and then developing into the industrial realm. In the industrial realm, it is marked by the existence of stamped batik as a batik technique and the ups and downs of the development of the batik industry in Central Java (Kustiyah & Iskandar, 2017).

The batik industry in Central Java, especially in Semarang, experienced rapid development and increase from 1919 to 1925. In Semarang there was an area that became a batik center, namely the Semarang Batik Village in 1942-1945, until the arrival of the Japanese at that time in 1942 the Dutch government gave instructions secretly to burn down industrial centers and all places that have the potential to be economic sources, including Batik Village. However, it turned out that this did not cripple the batik sector, a batik company owned by a Peranakan Chinese named Tan Kong Tien was discovered which flourished until the 1970s. Then in the 2000s another batik company was found and established in Tembalang called Umizie which in 2006 changed its name to Sanggar Batik Semarang 16 which produces ancient

Semarang batik (19th century) and new batik motifs such as Semarang icon motifs namely Lawang Sewu, Tugu Muda, Church Blenduk, Blekok Sronдол (Yuliati & Susilowati, 2022).

Semarang batik is not as standard as Surakarta and Yogyakarta batik, the creation of Semarang batik motifs prioritizes the concept of freedom according to one's own desires (Wibawanto et al., 2018, Sugiarto et al, 2020;2021;2022;2023)

Since 2006 the government has been trying to pioneer Batik Village again as a batik center in the city of Semarang. Starting with holding training involving 20 batik craftsmen held by the Department of Industry. To optimize the development of the Semarang Batik Village, the government made Semarang Mayor Decree number 530/780/2014 concerning the Establishment of Industrial Clusters in the City of Semarang, and 531/978 of 2017 concerning the Establishment of a Batik Center in the City of Semarang (Murti & Harsasto, 2019).

Batik Semarang 16 was founded by Umi S. Adi Susilo who started when attending a personality development workshop in Semarang City. At this time, the mentor at the workshop had an interest in collecting batik with motifs of various colors and decorations from various regions, this made the founder of batik Semarang 16 interested in studying batik art and everything related to batik. It took a long journey of up to eight years to learn batik from craftsmen in various cities such as Yogyakarta, Surakarta and Pekalongan, but the knowledge gained was not optimal so he had to learn batik all the way to the Jakarta Textile Museum. This is where Umi S. Adi Susilo got a lot of information about batik and founded a gallery or batik studio and produced batik, IKM Batik Semarang 16 has 219 motifs that have been registered with IPR. These motifs are divided into five main categories, namely the Semarang icon category (tugu muda motif, blenduk church, lawang sewu, blekok sronдол, mberok bridge and asem). The Semarang history category is Cheng Ho and Marabunta

motifs. The culinary category includes batik spring roll motifs, whipped noodles and dreadlocked tofu. The flora and fauna categories are peacock njeprak motifs, peacock mlerok tamarind background, and cattleya. The combination motif category is a combination of classic and contemporary motifs into parang tugu muda, sido roning asem, and ceplok cattleya motifs (BIsnisUKM, 2012).

To keep up with the development of the batik industry, there are strategic steps taken by IKM Batik Semarang 16, namely by developing products that are tailored to market tastes, consumer desires and needs. This effort was made to attract consumer buying interest through products with new innovations (Cahyati et al., 2015).

Creating batik motifs based on Semarang icons is a unique idea. Based on the description above, this article will discuss the characteristics of Semarang batik based on cultural ecology at the Semarang Batik 16 IKM. This article will discuss the uniqueness and distinctiveness as well as the suitability of batik motifs to design principles, color theory and decorative compositions. Then there is further discussion regarding the cultural ecology of batik motifs produced using a cultural ecology approach.

Based on the description above, Semarang batik has a uniqueness that is not typical of classic batik, and there are efforts by the Semarang city government to develop batik by forming clusters and holding batik training. So it is necessary to study further about the uniqueness of batik motifs created by Semarang batik makers. Apart from aesthetics which are studied using visual analysis, it also needs to be studied using a cultural ecology approach because creating batik requires the creativity of craftsmen which is influenced by several factors, including environmental, social and environmental factors. culture.

The novelty of this article lies in revealing the characteristics of the ecological motifs of Semarang batik through visual

analysis and cultural ecology studies. The use of an ecological cultural approach in creating batik motifs introduces a new dimension to the understanding and production of batik. This can be considered an original contribution to research and the application of traditional textile art. The presence of diverse motif categories, such as Semarang icons, history, culinary, flora, fauna, and combination motifs, indicates the diversity and creativity in batik production in Semarang. The efforts of IKM Batik Semarang 16 to develop products according to market tastes, consumer desires, and needs demonstrate the continuity of tradition by involving innovation in batik design. The article will discuss the alignment of batik motifs with design principles, color theory, and decorative composition. This can provide an in-depth insight into the aesthetic and design aspects of Semarang batik. Highlighting that Semarang batik has non-uniform characteristics compared to batik from Surakarta and Yogyakarta, as it prioritizes the concept of freedom according to individual preferences, adds a unique dimension to the context of Indonesian batik.

METHODS

This research is qualitative research, which according to Kriyantono is research that uses inductive thinking, starting from specific things or empirical facts towards things that are general in nature (Kriyantono, 2006). The object of this research is Semarang batik which is unique in its motifs and ideas from batik craftsmen in Semarang. This research was carried out on craftsmen at the Semarang 16 Batik Company.

In this research, we will discuss the characteristics of Semarang Batik based on cultural ecology using several theoretical approaches, the first of which uses a visual analysis approach using color theory and design principles to discuss the composition of visual elements in batik motifs. The visual analysis approach focuses on analyzing the visual elements in batik and how these

elements interact with each other. Due to the cultural ecological aspect of Semarang batik, researchers used a cultural ecological approach to understand the complex relationship between humans, culture and the environment in the context of batik production and use in the city of Semarang, Central Java. Cultural ecology explains that environmental factors have positive and creative potential in cultural processes (Sugiarto, 2014).

Aspects that need to be considered in the cultural ecology of Semarang batik include the physical environment of the Semarang area which is a natural resource that can be used for the batik production process, such as natural dyes and other organic materials. The physical environment can also influence the batik making techniques and designs used by artists or craftsmen.

Data collection in this research was carried out by means of observation, interviews and document study. The validity of the data in this research was carried out by triangulation to examine data that had been obtained from various sources.

The purpose of triangulation is to ensure the correctness of the data or information obtained by researchers where errors or discrepancies may occur in the data collection and analysis process (Rahardjo, 2010: 1-3).

In this research, the characteristics of Semarang batik which are included in the Semarang icon category will be described. Batik motifs will be described and explained using a visual approach, then the creativity in batik creation and the cultural ecological aspects found in batik will be studied.

RESULTS AND DISCUSSION

Batik as Traditional Art

Batik has deeply embedded itself in the cultural fabric of Indonesian society and has evolved into an integral activity inseparable from the lives of people in every region across Indonesia (Ahmad et al., 2022, p. 329). Traditional batik refers to batik created

through the conventional method of hand-writing. This written batik involves the lengthiest process and commands a higher price compared to other types of batik. On the other hand, stamped batik is produced through a printing process using pre-designed stamps (Mahesti et al., 2023, p. 52). Batik emerges from the transmission of inherited knowledge, values, and skills facilitated by the process of non-genetic enculturation (Affan et al., 2019, p. 442).

Indeed, batik originates from Indonesia. There was a disagreement over its ownership with Malaysia. Nevertheless, UNESCO has officially recognized Indonesian batik as an intangible global cultural heritage since October 2, 2009. Subsequently, the government established October 2 as the National Batik Day in Indonesia through Presidential Decree Number 33 of the year 2009 (Affan et al., 2019, p. 438).

Profile of Semarang Batik Semarang 16

Batik Semarang 16 is one of the pioneers in the establishment of Batik IKM in Semarang which develops and produces Semarang batik with unique characteristics typical of the north coast style, which in mixing and matching colors has boldness and is not standard. This IKM was founded in 2005 after the founder of IKM Batik Semarang 16, namely Mrs. Umi Sumiati, who previously studied at the Jakarta Textile Museum. Based on data obtained from the field, the batik work of IKM Batik Semarang 16 adopts the diversity of flora and fauna as well as icons of Semarang City and the surrounding environment. The motifs produced are representations of areas in Semarang, such as legends of several places in Semarang such as the legend of Banyumanik, metesel, Jati Ngaleh, Kampong batik and many more legends from several sub-districts in Semarang. Apart from legend motifs, flora and fauna, there are culinary motifs such as spring rolls and the typical Semarang presto milkfish. There are also iconic motifs typical of the city of Semarang such as the Lawang Sewu

Ngawang, Asemarang, Blekok Sronдол, Tugu Muda Kekiteran Sulur and Cheng Ho Neng Klenteng motifs. The batik work from IKM Batik Semarang 16 has 219 motifs that have been registered with IPR (Intellectual Property Right).

IKM Batik Semarang 16 produces written and stamped batik as a technique for making batik. All batik processes are carried out at batik studio 16 or known by another name, namely Niwa Canthing.



Figure 1. Process of Making Hand-written Batik (Documentation: Noor Tiara H.A.I)



Figure 2. Process of making stamped batik (documentation: Noor Tiara H.A.I)

IKM Batik Semarang 16 has innovation in the batik making process, creativity in the batik making process is also influenced by the environment and phenomena that occur in Semarang. In its development and to maintain its existence, this IKM has a unique strategy, namely accepting requests for motifs, as intended, a piece of cloth can be filled with two or three motifs that are suitable for mixing and matching so that it becomes one unit in a piece of cloth, apart from motifs with different colors on batik as well. can be replaced according to customer request. This is done to maintain its existence and attract the attention of the public, especially young people, in order

to motivate and increase awareness of the ownership of this intangible cultural heritage.

The strategy used to attract public interest in batik is not only limited to producing batik with unique motifs, IKM Batik Semarang 16 also established a batik gallery or exhibition space which was inaugurated in August 2022 which displays portraits of Semarang in 219 batik motifs. Apart from that, there is batik training or workshops at the Semarang Batik Studio 16 which is open to anyone who is interested and wants to learn batik. Visitors will be treated to batik making process activities from the process of tracing on cloth, nyanting, ngelir, nemboki to nglorod.

Visual Analysis of Batik Motifs by IKM Batik Semarang 16

An explanation of the characteristics of Semarang batik based on cultural ecology will first be explained regarding the idea of creating motifs which will be displayed in the table. This table will explain the batik motifs in the Semarang Icon category. The batik motifs included in the Semarang Icon category are the motifs of the Tugu Muda, Blenduk Church, Lawang Sewu, Blekok Sronдол, Berrok Bridge.


The perception of the world by humanity is filtered and individuals' relationships with their surroundings are altered by color. It exerts influence on human perception, preference, and psychology throughout their lifespan. Color preferences emerge in infants as young as three months old and generally shift with age. Certain responses to color may be inherent, while others are acquired from nature or culture. Cool tones serve as relaxants and are typically favored over their more stimulating warm counterparts. Color constitutes a nuanced yet significantly influential aspect of graphic design, permeating graphic representations in packaging, advertising, and branding. Minor variations in color can either enhance or compromise the effectiveness of a design, carrying substantial economic implications for

companies and products. Regardless of whether audiences are consciously aware of the impact of color, its hypnotic potential renders it a valuable asset for any visual communicator. A study investigated the juncture, if any, at which the combined effects of brightness and saturation lead a viewer to prefer a yellow hue over a blue one (Rider, 2013, p. 3).


The following is a table to explain this:

Table 1. Visual analysis matrix of Semarang batik motifs by IKM Batik Semarang 16

No	Motif name and image	The idea of creating motifs
1	 <p data-bbox="300 1144 576 1211">Tugu muda kekiteran sulur</p>	<p data-bbox="592 808 762 1178">Inspired by the Tugu Muda monument in Semarang to commemorate the events of the five-day battle in Semarang</p>
2	 <p data-bbox="300 1547 576 1615">Lawang Sewu Ngawang</p>	<p data-bbox="592 1211 762 1514">This motif is inspired by the Lawang Sewu building which is an icon of Semarang City</p>
3	 <p data-bbox="300 1951 576 1982">Gereja Blenduk</p>	<p data-bbox="592 1615 762 1962">This motif is inspired by the Blenduk Church building which is located in the Old City of Semarang</p>

4		<p data-bbox="1198 226 1380 595">Inspired by one of Semarang's typical fauna, namely the blekok bird which is often found in the Srandol area of Semarang</p>
---	--	---

Blekok Srandol

5		<p data-bbox="1198 631 1380 1005">This motif is inspired by the bergok bridge in the Old City area of Semarang. Which was built in 1705 during Dutch rule, which</p>
---	---	--

Legenda Jembatan Mberok

was previously called Gouvernmentburg. This bridge is a gathering place for various racial and ethnic groups.

Visual Analysis of the Tugu Muda Kekiteran Sulur Motif, namely this motif uses the dominant color black for the background and yellow for the icon of the young monument. The decorative composition of the young monument still seems realistic because it is still shaped like the original without any reduction or stylization. The decoration of the young monument is the main motif and there is a variety of floral decoration in the form of Semarang tamarind leaves and flowers. Aspects of cultural ecology The creation of this motif was inspired by the Semarang icon, namely the Tugu Muda, batik makers took the Tugu Muda icon as an image to

commemorate the five battles in Semarang and to appreciate the services of heroes immortalized in the typical Semarang batik motif.

The second motif is the lawang sewu ngawang motif, this motif uses warm colors, namely maroon as the background color and yellow as the color of the main motif, namely the Lawang Sewu building. As the color wheel can be divided into warm colors and cool colors, warm colors are colors that have bright, enthusiastic and attractive properties while cool colors are colors that can give a calm impression and have a calming effect (Meilani, 2013). There are filling motifs in the form of wavy lines and cloud shapes like the mega mendung motif. The additional motifs are only linear lines and have no space so there are no additional colors.

The third motif is the blenduk church motif, this motif uses dark blue as the background color and white cloth as the color for the decoration. The decoration in this motif is a visualization of the Blenduk church and flora, namely leaves and Semarang tamarind fruit.

Blenduk Church is a Colonial period building which became a landmark in the Old City of Semarang. According to history, the church building was built in 1752 and used in November 1753. According to Widiarto (2003) the Blenduk church is the oldest church in Central Java, built in the 17th century AD and has undergone at least three renovations. Each renovation took about 1 year and the commemoration is recorded in a marble inscription placed under the church altar (Marzuki, 2011).

The Blekok Srongol motif has an analogous color composition including light blue as the background color, dark blue - black and purple as the color for the Blekok motif. Analogous colors are color compositions consisting of colors that are close to each other on the color circle, the arrangement of analogous colors gives a harmonious and calm impression (Meilani, 2013). Apart from having a color composition that is included in the

analogous color category, this motif has a variety of decorations that undergo stylized gudahan in the form of blekok srongol. The shape of the blekok bird is visualized facing right by simplifying the shape (Yuliati & Susilowati, 2022).

The Blekok Srongol motif is a Semarang batik motif inspired by the typical fauna of the Srongol area. The naming of this motif was initiated by batik researcher Dewi Yuliati who in 2007 conducted research in several sub-districts in Semarang City with Umi, the owner of Batik Semarang 16. Naming motifs and creating motifs by highlighting local wisdom is intended to make them easier to remember and recognize by the wider community .

The final motif is the mberok bridge motif which has a natural color composition, namely black, light brown, dark brown and reddish brown. Natural colors are colors that are included in the color wheel category such as black, gray and white. Natural colors can be obtained from secondary and tertiary colors which have low/dark tones (Meilani, 2013). Several decorations serve as main motifs and fillers, including bergok bridges, people's houses, and streams depicted with wavy and parallel lines. There are black, light brown and reddish brown colors. The brown color is used for river flow decorations which are in the form of parallel and wavy lines from top to bottom, black is the background color and reddish brown is the color for the decorations on bridges and houses of local residents.

Based on the analysis of the decorative variations found in the motifs inspired by the Semarang icon, they are characterized by bright colors, dominant elements of lines, depictions of motifs or decorations that match the original form of the Semarang icon, and do not experience too much decorative composition, both stylization and distortion. The decorations are still realistic and not symbolic. Apart from these internal characteristics, there are also external characteristics in the decorations inspired by Semarang icons, namely the motifs created

refer to certain themes or categories, the decorations created are representations of the social and culture of the local area or Semarang, as well as natural and physical representations as they are. decorative flora in the form of Semarang leaves and tamarind fruit, fauna in the form of blekok Sronдол and buildings that are characteristic of the city of Semarang.

Cultural Ecology Aspects of Batik Motifs by IKM Batik Semarang 16

Cultural ecology occupies a significant position in today's landscape, marked by a rapid expansion of interconnections across various human-environment approaches in geography and related fields. The presence of productive interconnections is notably observed in extensive debates within geography that encompass diverse aspects, such as theory, methods, the roles of science and representation, scale, and subject matter, particularly in the comparison of cultural ecology to political ecology (Zimmerer, 2004, p. 795).

Cultural ecology largely adopts the methodological approach of Marx, asserting that there is a regularity between nature and society that is not dependent on human consciousness. This reality is subject to change, and these changes exhibit consistent patterns that can be observed and studied. When studying a society, research should commence with the interaction between humans and nature. Social systems involve dynamic interactions between humans and nature. Humans are creators of social ideologies and will continue to change with the evolution of their productive forces. Humans consistently alter nature, thus continually transforming themselves in the process (Francisconi, 2018, p. 628).

Talking about the rich cultural heritage, Semarang batik offers an interesting picture of the close relationship between humans and the natural environment that surrounds the city of Semarang and the surrounding area. The work

of IKM Batik Semarang 16 studied in the research was selected based on Semarang's iconic motifs, namely the Tugu Muda Kekiteran Sulur, Lawang Sewu Ngawang, Blekok Sronдол, Mberok Bridge and Blenduk Church motifs.

Based on interviews with Batik Semarang staff, 16 motif creation aims to introduce Semarang in batik cloth sheets. So the creation of Semarang batik is not far from things that exist in Semarang and is a representation of the city of Semarang, just like the motifs that are categorized as Semarang icons. So this research will discuss the cultural ecology found in Semarang batik.

The batik technique at IKM Batik Semarang 16 is written and stamped batik. The next process of written batik technique after the mordanting stage is making a sketch on the cloth or tracing, after the motif has been copied onto the cloth the next stage is mencanting starting from *nglowong* and *ngiseni* then the coloring stage or called *nyolet*, if there is more than one color then there is a part of the cloth that is missing. This means closing with another night, this stage is called *mopok*. To color the whole piece of fabric is called *ngelir* then the final stage is *nglorod*.

In the cloth stamped batik technique, no sketch is given first, sheets of cloth are spread out on a wide table and then the cloth is overlaid with wax with batik stamps with various motifs. This process is carried out repeatedly until the cloth is covered with the desired batik motif.

Cultural ecology proposed by Julian Steward is different from human and social ecology in the way it is approached. Cultural ecology does not attempt to find general principles that can be applied to a variety of cultural and environmental situations. In contrast, cultural ecology focuses on explaining the origins of cultural features and patterns specific to various regions (Nora Haenn, Richard R. Wilk, 2016).

Creating batik motifs certainly requires artistic knowledge in the work. Relevant artistic knowledge comes from the

environment (Sugiarto, 2014). Even though the location of this batik studio is in a mountainous area, because we want to introduce Semarang, the motifs made are not only sourced from the surrounding environment but also adopt interesting stories or icons from other areas that are still present in the Semarang area. Of the 219 motifs that have been registered with IPR, there are various categories that represent the city of Semarang, including Semarang icons, legends of regional or sub-district names in Semarang, categories of coastal areas and also the flora and fauna found in Semarang.

The initial use of colors was synthetic dyes in the form of naphthol and remasol because while attending workshops using synthetic dyes, slowly IKM Batik Semarang 16 began to apply natural dyes as fabric dyes. The use of naphthol and remasol dyes produces bright colors that are characteristic of Semarang Batik with the characteristics of the north coast.

For example, coastal communities (Tambak Lorok) have the characteristics of being hard, harsh and highly emotional, closed and difficult to accept change, but on the other hand they are hard workers. The kinship relationship between them is quite solid without thinking about their own interests (Fama, 2016).

As time goes by, the use of synthetic dyes is starting to be reduced and natural dyes are used, apart from preserving culture, they also preserve nature by not destroying and adding waste that can cause environmental degradation.

The process of dyeing fabric or ngelir is carried out with various types of dyes, both natural dyes and synthetic dyes. In dyeing with natural dyes Semarang 16 batik uses various materials that are available and easy to find, one of which is Indigofera leaves, Jelawe - alum, Jelawe - tunjung, tingi wood, secang and mangrove leaves.

The development of the use of natural dyes as textile dyes has recently increased. This is related to environmental standards and

the prohibition on the use of synthetic dyes containing azo groups. For example, Germany and the Netherlands require the use of environmentally friendly textile dyes and do not require the use of synthetic dyes (Kasmudjo & Saktianggi, 1987).

Synthetic dyes have a high negative impact on the environment and humans, especially those involved in the manufacturing process and their users. Increased awareness of the environmental and health hazards associated with the synthesis, processing and use of synthetic dyes has created interest in the manufacture of natural dyes for textiles. This is encouraged because natural sources of dyes such as plants, insects, minerals and fungi are abundant (Hidayati et al., 2018).

Reflecting on the award given by UNESCO, batik has traditional values that lead to activities to preserve culture and is environmentally friendly and sustainable so that it does not cause environmental problems (Indrayani, 2019). So in creating batik it is necessary to apply sustainable and eco-friendly concepts by utilizing attractive natural materials and producing unique colors on sheets of cloth.

CONCLUSION

Batik created by IKM Batik Semarang 16 in the Semarang Icon category includes the Lawang Sewu Ngawang, Blekok Srandol, Mberok Bridge, Tugu Muda kekiteran Sulus and Blenduk Church motifs which have almost similar characteristics in all of their motifs, namely the dominant decorative design with elements of lines, the decorative design does not. too much composition, both distortion and stylization, the colors use bright colors. The batik motif by IKM Batik Semarang 16 is a representation of the city of Semarang which displays buildings in Semarang as well as typical Semarang flora and fauna such as blekok birds and Semarang tamarind fruit.

The cultural ecology aspect of batik by IKM Batik Semarang 16 refers to certain

themes and categories and represents Semarang from a natural, physical and socio-cultural perspective. In terms of raw materials, batik makers use natural materials as natural dyes for batik, Indigofera, Jelawe – alum, Jelawe – tunjung, tingi wood, secang and mangrove leaves.

The decorations are inspired by the icons of Semarang, the decorations created are representations of the social and culture of the local area or Semarang, as well as natural and physical representations such as the decorative flora in the form of Semarang leaves and tamarind fruit, fauna in the form of Sron dol blekok and buildings that are characteristic Semarang city.

Through cultural ecology, these motifs are not just a physical description of the city, but also reflect the dynamic interaction between humans, history and nature. The use of these motifs in batik is a way to maintain and respect the cultural heritage of the city of Semarang. In addition, the use of colors and designs in batik can depict harmony with the surrounding nature and provide a unique view of how local people view their city. The use of bright colors in Semarang batik is a symbol of the characteristics of the Semarang people, especially the coastal area.

REFERENCES

- Affan, F., Triyanto, & Iswidayati, S. (2019). Education Batik in the Joint Business Group of Sidomulyo, Tegal: A Case Study of the Ornamentation, Function, and Inheritance. *Catharsis: Journal of Arts Education*, 8(4), 437–443.
- Ahmad, E. L., Sugiharto, E., & Rohidi, T. R. (2022). *Catharsis: Journal of Arts Education Production Form and Process Jambe Kusuma Kendal Batik in The Context of Women Empowerment of Ex-Tkw in Kendal District*. 328–333.
- Aprianingrum, Y., Nufus, A., & Asri, H. (2021). Batik Indonesia, Pelestarian Melalui Museum. *Prosiding Seminar Nasional Industri Kerajinan Dan Batik*, 1–14.
- BisnisUKM. (2012). *bisnis ukm batik semarang 16.pdf*. BisnisUKM - PT. Lantabura Media.
- Cahyati, I. F., Lubis, N., & Susanta, H. (2015). Analisis Strategi Pengembangan Produk Pada Batik emarang 16. *Jurnal Ilmu Administrasi Bisnis*, 4(1), 77–84.
- Fama, A. (2016). Komunitas MAsyarakat Pesisir di Tambak Lorok, Semarang. *Jurnal Sabda*, 11(June), 65–75.
- Francisconi, M. J. (2018). Cultural Ecology.
- Hidayati, N., Kurniawan, T., Kusumawardani, N. I., & Sari, R. P. (2018). Comparison of Maceration and Ultrasonication Methods on Indigofera Tinctoria Linn Leaf Extraction. *Jurnal Bahan Alam Terbarukan*, 7(1), 54–58.
- Indrayani, L. (2019). Upaya Strategis Pengelolaan Limbah Industri Batik Dalam Mewujudkan Batik Ramah Lingkungan. *Prosiding Online Seminar Nasional Batik Dan Kerajinan*, 1(1), 1–13.
- Kasmudjo, & Saktianggi, P. P. (1987). Pewarna Alami Batik. *Pemanfaatan Daun Indigofera Sebagai Pewarna Alami Batik*, 1, 381–387.
- Kriyantono, R. (2006). *Rachmat Kriyantono_Teknik Praktis Riset Komunikasi Jakarta_book.pdf* (p. 89). Kencana - PrenadaMedia Group.
- Kustiyah, E., & Iskandar. (2017). Batik Sebagai Identitas Kultural Bangsa Indonesia Di Era Globalisasi. *Gema*, 30(52), 2456–2472.
- Mahesti, N. D., Sugiarto, E., & Nugrahani, R. (2023). Symbolic Values and Meanings in Lasem Batik Motives. *Chatarsis: Journal of Arts Education*, 12(1), 45–53.
- Marzuki, I. W. (2011). Pelestarian Dan Pengelolaan Gereja Blenduk Semarang. *Jurnal Penelitian Arkeologi Papua Dan Papua Barat*, TH III No(1), 11–21.

- Meilani. (2013). Teori Warna : Penerapan Lingkaran Warna dalam Berbusana. *Humaniora*, 4(1), 326–338.
- Murti, H. W., & Harsasto, P. (2019). Optimalisasi Peran Pemerintah KOta Semarang dalam Mengembangkan Kampung Batik Semarang. *Journal of Politic and Government Studies*, 8(2), 241–250.
- Nora Haenn, Richard R. Wilk, and A. H. (2016). *The Environment in Anthropology A Reader in Ecology, Culture, and Sustainable Living* (2nd ed.). New York University Press.
- Rider, R. (2013). Color Psychology and Graphic Design Applications. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Sugiarto, E. (2014). Ekspresi Visual Anak: Representasi Interaksi Anak Dengan Lingkungan Dalam Konteks Ekologi Budaya. *Mimbar Sekolah Dasar*, 1(1), 1–6.
- Sugiarto E, Syarif MI, Nashiroh PK, Maulana AL (2023). “Feminine and Masculine Style as a Spirit of Contemporary ‘Batik’ Textile Making in Semarang”. *Research Journal in Advanced Humanities*. Vol. 4. Issue 3. 2023. pp. 69-83.
- Sugiarto E, Naam MF, Febriani M, Afifah S. (2022). “Komodifikasi Batik Semarang melalui Rekonstruksi Motif Kontemporer Bermuatan Konservasi Folklore dan Berorientasi Ekonomi Kreatif”. *Laporan Penelitian Terapan, LPPM UNNES*, 2022.
- Sugiarto E, Triyanto, Febriani M, Nashiroh PK. (2021). “Women's Expression in Contemporary Batik Fabric in Indonesia”. *Vlakna a textil (Fibres and Textiles)*. vol. 28. no. 3. Sept 2021. pp. 94-99. URL
- Sugiarto E, Othman AN, Triyanto, Febriani M. (2020). “Regional Icon Motifs: Recent Trends in Indonesia’s Batik Fabric Development.” *Vlakna a textil (Fibres and Textiles)*. vol. 27. no. 1. 2020. pp. 93-99.
- Syamwil R, Sugiarto E, Rohidi TR, Nurrohmah S. “Weeds as a Source of Development Idea on Batik Motive.” *Vlakna a textil (Fibres Textiles)*. vol. 26. no. 2. 2019. pp. 71-75.
- Wibawanto, W., Nugrahani, R., Rupa, J. S., Bahasa, F., & Seni, D. (2018). Indonesian Journal of Conservation Inovasi Pengembangan Motif Batik Digital Bagi IKM Batik Semarang. In *Indonesian Journal of Conservation* (Vol. 07, Issue 02).
- Widadi, Z. (2019). Pemaknaan Batik sebagai warisan Budaya Tak Benda. *Jurnal Pena*, 33(2), 17–27.
- Yuliati, D., & Susilowati, E. (2022). Developing the Motifs and the Strategies to Survive of Semarang Batik Creative Industries, in *Semarang Central Java Province, Indonesia*. E3S Web of Conferences, 359.
- Zimmerer, K. S. (2004). Cultural ecology: Placing households in human-environment studies - The cases of tropical forest transitions and agrobiodiversity change. *Progress in Human Geography*, 28(6), 795–806.