VISUAL AESTHETICS OF ELEMENTARY SCHOOL STUDENTS’ “BATIK” DESIGN

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Abstract
This paper describes the beauty of layout in the process of making "batik" motif designs for elementary school students. This article's background is the translation of the collaborative lecturer and student research results at the S1 degree. The research method used is the type of qualitative research with a descriptive approach. Subjects referred to elementary school students. Data collection techniques are doing by interview, observation, and document review. The data collection methods are presented in the instrument lattice, both interviews, observations, and document reviews. The instrument grid is broken down into instrument points. The object of research is the work of students in the form of "batik" motif designs in two-dimensional fields in local content subjects. The data analysis technique used is narrative data analysis. The results of the study explained that: (1) learning the local content of "batik" in the design material applied the basic elements and principles of fine arts; (2) the process of making "batik" designs refers to the objectification stages of art carried out by student, so that they can visualize the "batik" designs as desired.

Keywords: visual aesthetics, batik design, objectification of art, local content

INTRODUCTION
In the current era of globalization, we really need an education, whether primary or secondary education. Training is also not enough just to learn science or technology, but the training must also develop a local content curriculum that is useful for students to be able to recognize the environment and culture in their area. According to (Suyitno & Utami, 2017), writing about the implementation of the Curriculum 2013, the Central Java Provincial Government required all education units in Central Java are public and private, basic education and secondary education to carry out Javanese language learning (Suyitno & Utami, 2017).
This is in line with *Permendikbud No. 160 Tahun 2014* concerning the enactment of the Curriculum 2006 and the Curriculum 2013 jointly (Baswedan, 2014). In line with these regulations, based on “*Permendikbud Nomor 79 Tahun 2014*” concerning Local Content (“Mulok”) Curriculum 2013 states that it is study material or subjects in educational units that contain content and learning processes about local potential and uniqueness intended to shape learners' understanding of excellence and wisdom in the area of residence. One of the strategies that can be used in forming the character of the nation is the development of the local curriculum (“mulok”) that has been done in education in Indonesia. Local content (“mulok”) is the development of the concept of education in accordance with the concept of Ki Hajar Dewantara, namely Trikon (Nafisah, 2016). However, the view of Ki Hajar Dewantara as the father of development education in the country of Indonesia. On the concept of the national culture known as the theory of Trikon contains several things: (1) Culture is always nationality (national) and realize the nature or character of the national identity. (2) Every culture shows the beauty and humanity of indigenous high on the life of each nation who have it. (3) Each culture as a fruit of the victory of man against the power of nature, and the times always facilitate and expedite his life and give new tools for the betterment of life and facilitate and drive the level and enhance their lives (Rachmadullah, 2018).

SD Muhammadiyah Kalinampu II, is one of the primary schools in the Bantul Regency area that carries out “mulok” learning on a regular basis. This is a manifestation of the implementation of cultural learning around students. This school follows the policies of the local government to teach local content in the school environment. Based on the Bantul regent's decision, that local content "batik" is a compulsory subject for students (Samawi, 2010). With this decision, it can be used as a basic foundation for the authors to conduct this research. The definition of "batik" is an applied art form (craft) that has grown and developed in most parts of Indonesia since time immemorial. In each time and region, "batik" has motifs, ornaments, various decorations, patterns, techniques, and diverse materials. Etymologically, the word "batik" comes from the Javanese language "amba" (writing, width, or area) and "tick" (Javanese: "nitik", making a point). Furthermore, Musman and Arini in Supriono explained that "batik" is derived from the words "mbat" ("blowing", hitting, throwing many times) and "tick" (Javanese: “titik”, point, make a point, or write) (Supriono, 2016:4). Furthermore, the notion of "batik" in Javanese is written "bathik", referring to the Javanese script "tha" which shows that "batik" is a series of dots that form a certain picture (Wulandari, 2011:4). "Batik" is a traditional cloth made by painting motifs with Indonesian culture nuance on plain cloth. Batik
is one of the Indonesian cultural products belonging to traditional clothing. There are two kinds of batik, that is handmade and stamps batik. The study of batik has been done by researchers, especially in detecting batik motive (Firdaus & Nugroho, 2019). So, it can be concluded that batik is an activity to make "night" drops runny and form beautiful and interesting strokes with the method of writing intersecting points.

“Batik” is also protected by copyright so that the work is not recognized or dilapidated by other nations or others. In connection with this, there are also many art schools that teach about art, one of which is batik. As for "Undang-Undang No. 28 tahun 2014 tentang Hak Cipta" concerning copyright states, "batik" is meant artworks are innovative, present, and not traditional. The work is protected because it has artistic value, both in relation to the picture, style, and color composition (Pemerintah Republik Indonesia, 2014). Scratches resulting from the flow of "malam" that has been thawed in a hot pan can form a motif to the design in accordance with the creativity of the craftsmen. There are three process stage techniques to make a “batik” pattern, i.e. (1) “Klowongan”, the process of painting and creating basic elements of “batik” design in general, (2) “Isen-isen”, the process of fulfilling fragments of ornament determined. There are traditional patterns used as “ceceg”, “sawut”, “ceceg sawut”, and “sisir melirik”, and (3) Harmony ornamentation, positioning various backgrounds and designs in general, so that presenting a general harmonization. In delivering a batik pattern, symbols and marks become the key to express ideas and thoughts. Thus the intended concept can be well understood by art connoisseurs (Pradhikta et al., 2019). In this article, the author focuses on the stages of making "batik" motif designs in elementary schools. The objects displayed include geometric and non-geometric shapes. Geometric motifs consist of squares, rectangles, circles, triangles, pentagons, hexagons, triangles, octagonal, trapeziums, parallel bars, and so on. An article writes that "batik" has diverse motifs that occur because the Indonesian state has diverse tribes and cultures. The development of "batik" motifs is mostly done by taking inspiration from nature and the environment. Motifs that are widely used, such as leaves, flowers, birds, and marine life or, in other words, the category of non-geometric shapes (Sianipar et al., 2019). The objects are drawn on HVS A4 paper using a pencil and done independently. SD Muhammadiyah Kalinampu II uses the subject of "mulok batik" as a means to teach students in preserving batik culture that already exists in the school environment, and also so that students are able to maintain cultural heritage, so it is not recognized other countries or extinct.
The process of making batik requires several stages from the selection of fabrics (such as cloth, primissima, blacho, etc.) that are plain white, make designs or patterns of "batik", the process of "canthing" (painting on fabric using "malam"/ liquid wax heated), coloring, and drying. The shape of the motif/ pattern on each region's "batik" has a difference. For the example Solo-Yogya “batik”, easily recognized because it has a characteristic symbolic ornament based on Hindu-Javanese culture and distinctive colors consisting of sogan colors, indigo (blue), black and white. Pesisiran batik is also easily known for its naturalist ornamentation, the influence of various foreign cultures also looks very strong on the variety of ornaments and colors, such as: blue-white (“kelengan”), red-white (“bang-bangan”), red-biru (“bang-ru”), red-white-green (“bang-ru-jo”) (Ramadhan et al., 2019). However, each region has its characteristics and motifs in every batik. The application of making the design of "batik" motifs, in addition, to teach students about local content in their area, also includes integrating art learning, especially in elementary schools. Art education in elementary schools is a suggestion for developing children's creativity. Art education can be carried out through play and work activities. The purpose of teaching art education is not to make children an artist, but rather to increase children's creative power, foster creative abilities, foster a sense of beauty and ability to process and appreciate art. So, through art, creativity and taste are processed and developed in schools. In addition, art education also cultivates a variety of thinking skills. This includes creative, innovative, and critical skills (Hananto et al., 2018). Based on this description, learning art can be seen from the learning of "mulok" one of which is the material "batik" because there is a visual arrangement called design. The design created is a collection of motives which, of course, pay attention to the elements and basic principles of visual art as a benchmark for the beauty of art. In addition to motifs, "batik" also has aesthetic value or a variety of beauty with a variety of designs. Jacob Sumardjo stated that the term aesthetic was invented by a philosopher named AG Baumgarten in 1750 taken from ancient Greek, namely from the word "aistheton", which means the ability to see through senses (Handayani, 2019). The development of “batik” motifs also found with the modification of old motifs with newer and freestyles; this shows the attitude of the general public who began to see batik and batik motifs is something that is not sacred but became an artifact of popular culture (Hananto et al., 2018). Making the design of "batik" made by students should modify motifs that already existed before and developed individually. The teacher role is needed here as a motivator and facilitator for them. Aesthetics is a series of a priori forms that determine what presents itself as sense experience, speech, and noise, visible and invisible. These determine the stakes of
politics as a form of experience. Aesthetics has less to do with beauty than it does with experience. Writing, for example, reconstitutes relationships between bodies and shared space. Certain equality emerges when signs on a page become free(ing), and are potentially available to everyone's eyes (respecting, of course, the politics of knowledge and accessibility) (Tolbert & Bazzul, 2020). At the stage of creating art, aesthetics becomes very important for the order of visual works, through shape, color, object composition, neatness, and cleanliness. The combination of the artist's creativity in uniting form and division of space is an exciting activity because feelings are encouraged to reach the peak of each other's beauty satisfaction. Then aesthetics is a form of art that can be seen its beauty through the sensing system of someone who has a harmony value, and the beauty can create a beautiful and not beautiful impression. The creativity needed in the making, "batik" also taught at the elementary school level to that future generations can make and preserve "batik". In learning "batik", students are assigned to draw/ copy the pictures given by the teachers. Students in drawing "batik" motif designs appear to lack enthusiasm to draw. From this, the authors focus on aesthetic research or the beauty of "batik" motif designs for grade 5 students on learning local content ("mulok") at SD Muhammadiyah Kalinampu II. Thus, the author wants to describe making learning "mulok" students and describe the visualization of the students' "batik motif" design. Aesthetic objectification experience depends on sensing tools: (a) sensing is the sensing event of aesthetic objects through feeling by giving up completely the belief that aesthetics exists; (b) feeling is a blend of trust with the mind; however the mind is still influenced by the sensing above; (c) thinking is a thought process to overcome feelings that have taken place from the experience of objectification of beauty; (d) rationing is an authentic process, between objects that have not or have not objectified in their beauty (Hadjar Pamadhi, 2012:40). With this objectification stage, an object of beauty will have a sense of making a work, then a sense of trust can be influenced into the mind, think to form beauty and compare an object that has not seen beauty. This role will help a work look at aesthetic beauty and have a meaningful motif or form.

Art is one of the techniques that refers to the visual or often called the form of the decoration, which is the arrangement or composition or unity of the elements. The arrangement form in the way is required by law or the basis of the arrangement, to avoid mischief and confusion (Kartika, 2017:36). The visual element is anything tangible (concrete) so that it can be seen, lived through the eye's senses. These elements or elements include points, lines, shapes, colors, textures (material impression), contents, space, and light. Fine art is an activity and the result of a statement of human beauty, including lines, colors, textures, fields, volume,
and space (Sumanto, 2011). Then the concept of the principle of art is a law apartment layout (principle design) that has unity, the balance of formal and informal balance, simplicity, accentuation (emphasis), and the proportion (Kartika, 2017). The elements of visual art itself used as a principle to create a visualization of a beautifully shaped work that can be enjoyed by everyone's senses. Fine art is also a form of art that is real and in the form of parables.

**METHOD**

Research is a qualitative type with a descriptive approach. The time of the research began in the even semester of Academic Year 2019/2020 in January-February 2020. The research location was in the fifth grade of SD Muhammadiyah Kalinampu II. The research subjects were the fifth-grade students in Semester II, while the number of students was 13, consisting of nine men and four women. Data collecting technique carried out using observation, interviews, and document review methods and presented in the instrument lattice, interviews, observations, and document review. The instrument grids broke down into points. Observation or observation is a data collection technique done by observation and recording systematically, logically, objectively, and rationally about various phenomena both in actual situations and artificial situations to achieve specific goals (Arifin, 2014). Through direct observation or observation, and interviews expected to obtain data and in-depth information process of drawing students' batik motif designs. Document review carried out in the form of taking pictures and reviewing documents such as artwork and matters relating to the object under study.

The validity of the data in this study is to use data triangulation techniques. To establish the data (trustworthiness) required inspection techniques based on several specific criteria. There are four criteria used, the degree of confidence, transferability, dependability, and certainty (Moleong, 2018). Based on this opinion, the writer's data collection analysis technique is through observation, interviews, and document review, so it expected that the data obtained is more reliable. As for data analysis, the authors use a narrative model.

Narration is writing that contains a series of events from time to time described in the beginning, middle, and end (Sarosa, 2017). Narration is a story in social science; narration is a term for empiricism collected by researchers (Sarosa, 2017). In narrative analysis has several kinds of narratives, namely personal narrative and organizational narrative. Several different approaches are using narrative analysis, and each discipline may use one approach is writing. Writing in the narrative analysis means using narrative analysis as a method for organizing and
presenting research data. Writing in a narrative style suggests using a narrative structure to tell stories (Sarosa, 2017). The author focuses on using approaches to writing narrative analysis in conducting data analysis techniques because research focuses all collected data to tell and interpreting the meaning of data in the form of narrative in a logical, structured, and systematic manner.

RESULTS AND DISCUSSION

Results

Making "batik" motif designs in the "mulok" learning of fifth-grade students at SD Muhammadiyah Kalinampu II went well. Learners can understand how the flow of images that will produce to look and seem beautiful. The pictures of batik motif designs that have been made by students can be said to be their beauty because there are several pictures of students who are careful in the use of elements and principles of art. Thus, some students learn who draw origin and are irregular. Still with that, the author understands learning local content drawing batik motifs in class V SD Muhammadiyah Kalinampu II and at the age of primary education. The author examines the objectivity of students' sensing about drawing batik designs implemented, which include.

a) Sensing

Making a "batik" motif design picture is certainly not easy, which is not everyone has a hobby in drawing, but for a sense of course, everyone has it. Assignments given students are drawing "batik" motif design. The author sees that every student has a taste that expresses the beauty of drawing, looking at how students draw using their sense of patience, accuracy, and understanding what kind of shape will be drawn by him. In this case, the students know it when teacher gives an example of a picture, the teacher presents each picture given, and students can answer it based on what they see (Figure 1).

b) Feeling

Of course, in making art, feelings must also have in a person, and feelings can be strongly related to a taste, which feelings and complement each other in the objectification of art sense. Students who draw also have a feeling in drawing; they notice that making a picture that initially forms a thin line (smooth), and then after the line formed, students thicken the line to make it clear. It may neglect a lot; it is essential because, in drawing, we need a great illustration, can't just make but do not understand the meaning of the image made (Figure 2).
c) **Thinking**

Thinking in drawing, these students see the spirit of high-minded students, which in drawing they look think about that, for the example, lines they make are not balanced and not neat. The small treatment shows that it is evident that students draw using their minds to form or produce a work of beautiful batik motif designs (Figure 3).

d) **Rationing**

From the sense of objectification sensing discussed, the comparison also has an important role. Students compare the picture they make with the example given by teachers. Thus even the students feel much different; they believe that the images in the examples are not the work of human drawings but instead use existing technology. It is proven when there are friends who tell their peers (Figure 4).

Then in art, there are elements and principles of fine art, which elements and principles of art are very influential in the beauty of the work created. Apart from the elements and the principles of fine art are also essential parts considered in creating art. The author also identifies the elements and principles of fine arts used in drawing batik design works of fifth-grade students at SD Muhammadiyah Kalinampu II to analyze the beauty of the work produced by
students. From the results of research conducted on students, the authors get a picture of each student's work, along with pictures and use of fine arts elements and fine art principles produced. Picture 1, shows that the students are practicing to make "batik" motif design with themselves. They made sketches firstly on the paper with a pencil. The teacher put on the example of based of design for the students and they drew like the example. Although the teacher has given an example, the students must think about creating new shapes or almost making similar objects.

**Table 1. Visual Analysis Student’s Artworks based on Visual Arts Basic Elements**

| Number | Picture of Student’s Artworks | Description |
|--------|------------------------------|-------------|
| 1.     | Figure 4. Picture of Garuda motif (Gusnanda, 2020) | 1. Dots: there are only a few points in the picture, there is a point to make a point, but it looks like a line.  
2. Lines: it used curves, straight, vertical lines, waterfalls, and inverted pyramids.  
3. Form/ shape: non-geometric objects to more beautiful objects (artificial objects)/ stilization.  
4. Color: monochrome.  
5. Field/ space: two dimensional.  
6. Unity/ composition: mastery of the drawing field is quite good by placing the main image in the middle, then adding a flower shape at each corner, and including the name of the motif and the name of the student. Thus, making this work balanced.  
7. Proportion/ alignment: the picture already looks quite beautiful, using shading to pay attention to the color's brightness.  
8. Balance: symmetrically. |
2. Dots: it used thick dots.
   1. Line: straight, sloping, upright, zigzag, curved, wave, parallel.
   3. Form/ shape: triangles, squares, and non-geometric objects refined to more beautiful form (artificial objects)/ stilization.
   4. Color: polychrome.
   5. Field/ space: two dimensional.
   6. Unity/ composition: image mastery is a great area by adding objects of interest in the upper right and left corners to becomes more balanced.
   7. Proportion/ alignment: the image looks skewed.
   8. Balance: symmetrically.

Figure 7. Picture of Building Motif (Gusnanda, 2020)

3. Dots: it used bold dots, lines: zigzag, arcs, waves, crosses.
   2. Form/ shape: circle, ovals, square, triangles refined to more beautiful form (artificial objects)/ stilization.
   3. Color: monochrome.
   4. Field/ Space: two dimensional.
   5. Unity/ composition: composition of the color is less irregular, the visible mark of the shading removed. Space mastery is good enough by prioritizing the design of the motif in the middle.
   6. Proportion/ alignment: the image is too tight down.
   7. Balancing: symmetrically.

Figure 11. Picture of Plants (Non-geometric) Motif (Gusnanda, 2020)
Figure 13. Picture of Dragon Motif (Gusnanda, 2020)

Discussion

Drawing "batik"s motif designs is a simple activity; the drawing process students gave examples of the drawings. Students are assigned with the teacher to draw by following the example drawings provided; students do not draw it with their creativity. However, "batik"s design motifs are produced can see in its beauty for the children's age. Also, there are also some students look carelessly in drawing, it can be seen from work produced. In implementing drawing "batik" motifs students can work closely with the teacher for making a picture of the motif. Students also do not feel the difficulty in drawing it, because there are pictures that have been given by the teacher to be an example of drawing and can be called by plagiarism. For this stage students interact with the teacher as well as in the provision of material, students also play an active role in the mastery of the material provided, because when students ask questions to answer the questions given by the teacher, but some students do not understand about drawing design motif "batik", but after the question is thrown to his seatmate and answered by his friend. Teacher also throw the question back to be answered by students who had not yet understood the submitted material. After that, the teacher closes the learning because the learning time for local content "batik" only refers to one hour of learning (30 minutes). The teacher gives students a message for learning in the next week and preparing drawing equipment. After learning, the teacher doing a little evaluation with questions about the materials during the learning day, coincidentally because grade 6 was preparing
for a national exam, the schedule of local content "batik" was supposed to be on Tuesday at the end of the lesson.

In the next meeting, the teacher re-evaluates the learning that conveyed last meeting about drawing "batik" motifs, after the students are ready to draw the teacher distributing a batik motif that the teacher previously prepared. In the drawing stage, students pay attention to the neatness of an image produced later. The picture also made so beautiful that it does not look messy. Learners also pay attention to the lines made, points, colors through the estimation, and also the straight balance of an image formed. The authors conclude that students also understand aesthetics of an image, although in interviews conducted with students, they state that many do not know about the picture's aesthetics of the picture. In this case, the author also found that the teacher also delivered a little material about fine arts. The teacher-directed students drawing, they must make lines or sketches, then thicken the lines, then about balance in drawing, color (dark light), shading, and so on. The teacher also gave a message the art material can make the picture more beautiful.

CONCLUSION

The author can conclude, that students in the process of drawing "batik" motif designs apply objectification of the art, namely the stages of sensing, feeling, thinking, and rationing. The sensing used is to produce an elegant and beautiful picture seen by one's sense of sight (eyes). Besides, the work of students also shows the elements and principles of art that proven in the picture of students. Thus, the work of drawing "batik" motif designs that have been made by students in grade 5 at SD Muhammadiyah Kalinampu II can be said to be beautiful and seem like the surrounding images.

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REFERENCES

Amanah, A. (2014). Sejarah Batik dan Motif Batik Indonesia. Seminar Nasional Riset Inovatif II.

Baswedan, A. (2014). Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia. Menteri Pendidikan Dan Kebudayaan Republik Indonesia.
Hadjar Pamadhi. (2012). *Pendidikan Seni: Hakikat, Kurikulum Pendidikan Seni, Habitus Seni dan Pengajaran Seni untuk Anak* (Suroso (Ed.)). UNY Press.

Hananto, B. A., Syarief, A., & Ujianto, A. N. (2018). Pengembangan Motif Batik Semarangan Menggunakan Tipografi sebagai Gagasan Visual. *Jurnal Seni Dan Reka Rancang: Jurnal Ilmiah Magister Desain.* https://doi.org/10.25105/jsrr.v11i.3874

Handayani, W. (2019). Pedagogi Estetik Berbasis Kearifan Lokal melalui Kriya Nusantara Batik Cianjur. *Journal of Urban Society’s Arts.* https://doi.org/10.24821/jousa.v5i2.2086

Kartika, D. S. (2017). *Seni Rupa Modern* (D. S. Kartika (Ed.); Januari 20). Rekayasa Sains.

Moleong, J. L. (2018). *Metodologi Penelitian Kualitatif* (38th ed.). PT. Remaja Rosdakarya.

Nafisah, D. (2016). PERAN PENDIDIKAN MUATAN LOKAL TERHADAP PEMBANGUNAN KARAKTER BANGSA. *Citizenship Jurnal Pancasila Dan Kewarganegaraan.* https://doi.org/10.25273/citizenship.v4i2.1078

Pemerintah Republik Indonesia. (2014). Hak Cipta. *Undang-Undang Republik Indonesia.*

Pradhikta, D., Wardhani, N. W. S., Fatmawati, F., & Setiawan, R. (2019). IMPLEMENTATION OF KINARA-KINARI BATIK PATTERN ON CLOTH. *ISLLAC: Journal of Intensive Studies on Language, Literature, Art, and Culture.* https://doi.org/10.17977/um006v3i12019p036

Rachmadullah, R. (2018). *Education as the Culture Process.* June.

Ramadhan, W., Pristiantar, D. L., Kuntjoro, Y. D., & Oktofianto, D. (2019). The Symbolic Meaning of Redesign Batik Motives Kawung Solo based on Applied Mathematics Geometry Transformation and Village Promotion Efforts Kampung Matematika Karanglo, Karanganyar. *Proceeding of Community Development.* https://doi.org/10.30874/comdev.2018.304

Samawi, M. I. (2010). Penetapan Membatik sebagai Muatan Lokal Wajib bagi Sekolah/ Madrasah di Kabupaten Bantul. *Keputusan Bupati Bantul Nomor 05A Tahun 2010.*

Sarosa, S. (2017). *Penelitian Kualitatif: Dasar-Dasar.* PT. Indeks.

Sianipar, T. D. A., Kusuma, P. D., & Ansori, A. S. R. (2019). Pengembangan motif ubur-ubur jenis chrysaora colorata pada aplikasi batik berbasis web dengan metode random walk. *EProeceedings of Engineering.*

Singgih, A. P. (2016). Karakteristik Motif Batik Kendal Interpretasi dari Wilayah dan Letak Geografis. *Imajinasi: Jurnal Seni.* https://doi.org/https://doi.org/10.15294/imajinasi.v10i1.8816

Sumanto. (2011). *Pendidikan Seni Rupa di Sekolah Dasar* (Sumanto (Ed.); I). Fakultas Ilmu Pendidikan Universitas Negeri Malang.
Supriono, P. (2016). *Ensiklopedia: The Heritage of Batik (Identitas Pemersatu Kebangsaan Bangsa)* (Maya (Ed.)). ANDI.

Suyitno, S., & Utami, H. R. (2017). Relevansi Tema Kurikulum 2013 Sekolah Dasar Muatan Lokal - Nasional. *Malih Peddas (Majalah Ilmiah Pendidikan Dasar)*, 6(2). https://doi.org/10.26877/malihpeddas.v6i2.1346

Tolbert, S., & Bazzul, J. (2020). Aesthetics, string figures, and the politics of the visible in science and education. *Journal of Curriculum and Pedagogy*. https://doi.org/10.1080/15505170.2019.1689539

Wulandari, A. (2011). *Batik Nusantara: Makna Filosofis, Cara Pembuatan & Industri Batik* (M. Nina (Ed.)). ANDI.