



## COMBINING DIGITAL PRINTING OF ENDEK MOTIF HIJAB WITH TIE DYE EXPLORATION OF MUSLIMAH FASHION STYLE

Naura Taqyna Shafa<sup>1</sup>, I Wayan Adnyana<sup>2</sup>, I Wayan Karja<sup>3</sup>

<sup>123</sup>Fine Art, Faculty of Fine Arts and Design, Indonesian Institute of the Art Bali, Indonesia

*E-mail: ntaqynashafa@gmail.com*

### ARTICLE INFO

Received on  
16 September 2024  
Revised on  
15 January 2025  
Accepted on  
16 January 2025

### KEYWORDS

Hijab  
Fashion  
Endek  
Digital Printing  
Tie Dye

### ABSTRACT

The use of Muslim clothing, especially in using hijab, has become an art trend carried out by a fashion connoisseur. Uniqueness in terms of motifs contained in the hijab can be used as a fashion item that is often used. In this case, the motif used in the hijab is designed using endek motifs with coloring using tie dye techniques that can add aesthetics to clothing and fashion lovers and the public can get to know more about endek motifs, and can preserve the culture that comes from their respective regions. The process of creating this work uses technology that can facilitate the next process, namely by using digital printing technology on the hijab cloth that has been designed through the process of experimentation, exploration, and observation. The use of endek motifs in hijab design emphasizes several motifs in endek woven fabric. The resulting works are 6 (six) hijab works that have been printed using endek motifs and the results with coloring using tie dye coloring techniques which have their own uniqueness with coloring results that can be intentional or unintentional. The final result of this work is expected to encourage the community in preserving and disseminating their culture, can increase the diversity of motif designs on the hijab, especially in traditional motifs, can help in the needs of dressing, especially in Muslim clothing, and can provide a variety of hijab designs, and can give a new impression to the connoisseurs of Muslim fashion.

## 1. INTRODUCTION

The development of fashion today has resulted in various kinds of fashion trends and innovations in dressing. This has an impact on the development of Muslimah fashion styles by following religious law. Muslimah fashion style includes various ways of dressing in accordance with Islamic law, namely by covering the entire aurat for women. One of the things that must be used for Muslim women is hijab. Hijab is a cloth used to cover the head to cover the chest. Along with the development of the times, hijab is not only used as a head covering, but can be used as one of today's fashion items. Hijab itself has many types, from shape, length, material, and model. The hijab that is often used and easy to use is the rectangular hijab.



In the tourism sector, Bali is not only in the natural sector, but also in the cultural sector. In the cultural sector, Bali can produce various forms of culture produced by the community from generation to generation which is also attractive to tourists. One of the results of the tourist attraction in the cultural sector is the traditional cloth produced by Bali. Traditional Balinese fabrics in the form of woven fabrics that are still sustainable today. One of the traditional Balinese fabrics is the endek fabric.

Endek cloth is a woven ikat cloth used for community clothing in daily activities and religious ceremonies. Since the colonial era until independence, endek cloth has continued to develop. Endek cloth must be preserved and developed as an item of clothing.

The use of tools that have developed can facilitate people in their daily activities. One of these developments is digital printing. Digital Printing is one of the ways in modern printing that can transfer a material to one media. The use of this method can be used in various media and one of them is on fabric media.

There are many types of dyeing on fabrics, one of which is tie dye. Tie dye is one of the techniques in colouring that uses ties in producing certain motifs. The results of colouring using tie dye are unique in motifs and certain effects.

The rapid development of the times makes hijab never miss in following fashion trends, starting from the motif and the way of wearing hijab. The development of motifs on the hijab can be used as one of the items in fashion, where the hijab motif can be mixed and matched with the clothes to be used. The number of new motifs that develop for the hijab, does not rule out the possibility of the loss of traditional motifs on the hijab. As well as the young people's trend that is currently popular is a trend that uses traditional fabrics as a fashion item that is worn for daily use. The use of traditional endek motifs on hijab can be used as a form of cultural preservation.

From these observations, the author wants to develop a Muslimah fashion style with hijab as one of the items in fashion to be an innovation and exploration for Muslimah fashion. In developing this hijab, the author wants to make a hijab with endek motifs and not be left behind in today's Muslimah fashion trends. Therefore, the author chose "Combining Digital Printing of Endek Motif Hijab with Tie Dye Exploration of Muslimah Fashion Style".

## 2. RESOURCE OVERVIEW

Source review is important in conducting research, in this case the author uses several source reviews and conducts internship activities as one of the references in writing this research. In this case the author conducts MBKM Internship activities carried out at Agung Bali Collection, as the place of this research. Agung Bali Collection is a place of business in the form of PT (Limited Liability Company) with the name PT. Tenun Agung Bali. Anak Agung Dwipayani is the founder of Agung Bali Collection which was founded in 2015. The initial product issued by Agung Bali Collection is endek woven fabric, which over time Agung Bali Collection began to develop weft ikat weaving designs or endek fabrics with ikat, air brush, and surface design endek techniques.

Surface design endek is one of the superior products issued by Agung Bali Collection. Where this product was initially developed in 2015 until now. Original products that have been developed by Agung Bali Collection include ikat weaving with natural dyes, endek seseh weaving with natural dyes, surface design endek, and endek seseh weaving. With the expansion of the market that Agung Bali Collection has achieved, the products released present products that suit the needs of the market. These products

include home décor, paintings on woven masks, pouches and masks, endek woven shirts, bags, tablecloths, endek scarves and endek ties.

## **2.1 Internship**

The definition of an internship according to Sudjana is where an internship is a way of disseminating information that is carried out in an organised manner. In addition, according to Rusidi's statement, internships are a way to prepare themselves to become human resources who are ready to work, therefore the need for courses on internships that can be carried out by students. According to Sumardiono in the definition of an internship, an internship is a stage of the learning process by an expert through an activity in the real world. Also, internship is a process that applies knowledge and skills in solving a problem that occurs in the surrounding environment [1]. It can be concluded that the existence of an internship programme is a training or practice that can develop the abilities of students to be able to enter the world of work.

## **2.2 Digital Printing**

Digital printing is everything from prints that use and have been completed through digital files, which has been stated by Frank Romano in Damaria. Dameria himself states more about digital printing. In this case Dameria states that digital printing can be grouped based on several different aspects and reviews, so that the results of these groupings can lead to ways of application and use that vary greatly. Furthermore, Dameria explained in terms of applications and needs in the industry, where digital printing can be grouped into several groups, including Digital printing POD (Print on Demand), Digital printing for DCP (Digital Colour Proofing), Digital printing Large Format Printer/Wide Format Printer, and Digital printing for Digital Photography, Digital Lab and Digital Imaging [2]. It can be concluded that digital printing is everything from the printing process in a field using technology that can produce a final result, namely the product.

## **2.3 Endek**

The definition of the word endek can describe an ikat process in which there are two types of weft ikat fabrics and one of the Balinese handicraft weaves is endek woven fabric which is one of these types of weft ikat fabrics [3].

## **2.4 Exploration**

Exploration is an activity that can produce new experiences and new situations. To achieve the results of new experiences and new situations, exploration activities are needed, namely by exploring and observing the surrounding world according to the situation directly. In this case to gain more knowledge and find something new or an innovation [4].

## **2.5 Tie Dye**

According to Wardoyo and Widodo, tie dye is a way of making motifs on fabric that is quite famous not only in Indonesia, but also abroad. In the Indonesian sense of the lexicon, tie dye can be translated as 'tie dye'. Furthermore, further understanding of tie dye according to Ahdi and friends, that tie dye can be interpreted as a process of making motifs on fabrics that use a process of tying on the fabric and blocking or holding the colour [5].

### 3. METHODS

#### 3.1 Implementation Method

The internship / work practice activities of the Merdeka Belajar-Kampus Merdeka Program (MBKM) at Agung Bali Collection partners were carried out for 16 weeks starting from March 2024 to July 2024. In carrying out internship / practical work activities, students follow all types of regulations, working hours, and can carry out the assigned tasks and can be responsible. Where at Agung Bali Collection partners, students are placed in the production site.

In the implementation of internships, students use the knowledge that has been taken during lectures to assist in working on a project given by Agung Bali Collection partners. This is creativity and aesthetics in art that can be used in making endek motif designs.

#### 3.2 Data Collection

To complete the data needed in compiling the report, the author requires several data collection techniques, namely as follows:

##### a. Interview Method

Interview is a way to get information between the interviewer and the respondent to get the necessary data. Interviews can also be interpreted as interactions in the question and answer stage between interviewers and sources to obtain information [6].

##### b. Observation Method

Observation is a process of data collection in which the researcher makes direct or indirect observations about things that are the object of research and records them in an observation tool [7]. This method the author uses to obtain data from the partner's production site to be able to understand the situation and observe the data directly in the field.

##### c. Literature

According to Sarwono, library research is a process of data collection carried out by studying books, notes, literature, and various reports related to the problem to be solved [8]. This method can be used by the author as a source and foundation in writing an internship report.

##### d. Practice

The practice method is to achieve a purpose of providing opportunities for students to gain direct experience [9]. The results of practical experience at partners can be used in completing report writing and the author gains knowledge.

## 4. RESULTS AND DISCUSSION

### 4.1 Transfer of Knowledge

The knowledge gained while studying in college can support students in carrying out internship / work practice activities at Agung Bali Collection partners:

#### a. Design Skills

Students can develop skills in designing to create new and unique fabric motifs and patterns during the implementation of internship activities. In the implementation, students help create designs for motifs and patterns on woven fabrics.

#### b. Knowledge of the Weaving Industry

During the internship process, students gain knowledge about the weaving industry, namely in the processes included in the weaving industry related to the selection of materials, the process of making woven fabrics, and the process of weaving designs and motifs as well as the production of woven derivative products.

#### c. Warp Yarn Manufacturing Process

Warp yarn or can be called warp is a weaving thread arranged in parallel which is usually elongated and does not move where it is tied at both ends, in which the weft thread is tucked. Warp yarns go through a starch coating process in the weaving preparation process. In this process the warp yarns are coated with starch to increase the strength of the yarn and to resist friction. Warp yarn when washed can shrink or shrink, because warp yarn experiences a lot of pull and tension.

The following is the process of making warp yarn:

- 1) Dyeing of warp yarn if required
- 2) *Ngelos*, is the process of straightening the yarn as well as winding the yarn onto a small spool or bobbin.
- 3) Spinning the yarn using a mehani machine
- 4) *Nyucuk* is the process of inserting the yarn one by one into the loom which can reach 2,000-3,600 strands of yarn.

#### d. Weft Yarn Manufacturing Process

Weft yarn, in the manufacturing process the weft yarn only crosses the ranks of the warp yarn. Weft yarns do not go through a starch coating process like warp yarns. The weft yarn will become stretchy or increase in length when exposed to water in the form of cloth. The weft thread is moved by hand on a non-machine loom or by a machine that is inserted between the warp threads. The weft is usually coiled and the coils are moved between the weft which can be raised and lowered.

The following is the process of making weft yarn:

- 1) *Ngelos*, is the process of straightening the yarn as well as winding the yarn onto a small spool or bobbin.
- 2) *Mempen*, is the process of spinning the yarn to the trial
- 3) *Creating a design or motif on the trial*
- 4) *Ngiket*, is the process of tying the motif on the trial using raffia rope
- 5) Dyeing the base colour
- 6) *Opening the raffia rope on the motif ties*

- 7) *Nyatri*, is the process of colouring the motif using a wooden comb or brush.
- 8) *Nyepih*, is the process of separating the yarn that has been motifised to be made into a new skein in the form of ringlets.
- 9) *Ngicir*, is the process of spinning the yarn onto a pallet using a jantra machine
- 10) Weaving process

#### e. Use of Eco Enzyme

The use of eco enzymes by Agung Bali Collection is used as an ingredient for natural colour fixation to strengthen the colours that have been produced. Where eco enzyme is an organic liquid obtained through the fermentation of kitchen organic waste, in the form of fruit or vegetable pulp.

#### f. Surface Design



**Figure 1.** Surface Design

(Source: Personal documentation, 2024)

Surface design is one of the painting developments used in painting on woven fabrics by adding ornaments using written *prada*. The development of surface design by Agung Bali Collection has been developed since 2015 and is one of the superior products produced. The colours used in *prada* are silver and gold using the canting massage technique.

#### g. Tie Dye Colouring

The use of tie dye can be done by tying the fabric that you want to dye with rope or thread. This is to strengthen the bonds or folds so that in the process of colouring the folds or ties are not easily separated. After the process of tying the fabric, the fabric that has been tied can be coloured by dipping it in tie dye liquid or coloured using tie dye liquid.

## 4.2 Transfer of Skills

The skills acquired by students while carrying out internship/practical work activities are:

#### a. Pattern and Motif Design Skills

In this case, students make motif and pattern designs taught by mentors from the production team. Students are taught how to transfer the sketches of motifs that have been made to the winnowing tool or dish. The motifs to be transferred need to follow the clicker tool which can determine the size of the motif to be made.

b. The Process of Making Ikat Weaving

Students acquire skills in making weaving, namely following from the initial process to the last. The weaving process begins with pengelasan, which is the process of rolling the yarn into cones or kelosan and ends with the fixation process and the weaving process to become one woven fabric.

c. Skills in Using Weaving Tools

In the process of making weaving, there are several tools that use technology to facilitate and streamline the time in making woven fabrics. These tools include weaving machines and yarn winding machines.

d. The Process of Making Motifs in Tie Dye Colouring

Before entering the dyeing process, the fabric used needs to have a motif or shape that you want to produce in this process. The resulting motif can be formed from folds, where the folds can be made intentionally or unintentionally.

### 4.3 Technology Transfer

a. Use of Non-Machine Looms

The use of Non-Machine Looms is a tool used to facilitate and accelerate the manufacture of woven fabrics. This loom uses a tool based on wood material with fitted equipment that becomes an integral part of one unit (see Figure 2). The use of Non-Machine Looms can be moved by using feet and hands. In running this tool, the weaver sits on a chair with the foot swinging the pedal and the hand pulling the lever. The movement of the foot has a function to regulate the rise and fall of the warp yarn at the time of entry and exit of the weft yarn. The use of Non-Machine Looms is a unity of several tools, each of which has its own duties, among others:

- 1) Warp boom, a storage area used to roll warp yarns
- 2) Fabric boom, is a place used to roll fabric that has been woven
- 3) Comb, is a tool that can be used to adjust the warp yarn density
- 4) Guun, is a tool used as a controller and activator for warp threads so that the lifeboat can enter between the warp threads
- 5) Guun step, this tool can be used as a regulator for the guun which is this tool to lower or raise the guun when the step is stepped on.



**Figure 2.** Non-machine loom  
(Source: Personal documentation, 2024)

**b. Digital Marketing Techniques**

The use of technology in marketing is one way of the Agung Bali Collection to expand the market. In this case, students learnt about the marketing process using social media and e-commerce. Students assisted in the process of product photoshoots and shooting videos of activities, knowledge in the weaving industry and educational videos about weaving.

**c. Digital Endek Motif Creation**

The use of technology to create motifs on endek fabrics is one way to utilise existing technology. In making the motifs, the author used Ibis Paint X software. The utilisation for this software is that the author can sketch motifs and can experiment with various design ideas, correct mistakes easily, and produce neat digital sketches. Features in the application allow the author to separate design elements, making modification and customisation easy.

**d. Digital Hijab Printing**

The process after making digital endek motifs, is the process of transferring the digital motif results to the medium. The medium used in this process is hijab fabric with ultrafine hijab material. Transferring material to the hijab uses a laser printing tool, where in this tool printing on the hijab uses a laser to display or print the desired material.

**4.4 Analysis**

The implementation of internship/practical work activities at Agung Bali Collection weaving, students contribute to the company in the field of knowledge. The results of knowledge received by students during their education in lectures are used as guidelines for students to contribute to a project by the company.

During this internship, students are directly guided by field mentors from the production team at Agung Bali Collection. With the presence of field mentors students can work on a project given by Agung Bali Collection smoothly. The skills and knowledge gained from this internship can add insight to students and know how the world works in the field of art and in the weaving industry.

Understanding of the field of technology, especially in the weaving industry, is further developed by students participating in internships at Agung Bali Collection. During the internship, Agung Bali Collection utilised a lot of technology in weaving and students could directly try to use the technology tools provided. The use of technological tools is very helpful for weaving work to simplify and streamline time. Understanding of technology is not only about the use of tools used for weaving, but technology is used as a medium for marketing.

The results of internship activities at Agung Bali Collection can be used as very useful knowledge, especially in making the work of the internship. In this case, knowledge about endek motifs can be used in the product, namely hijab. After making endek motifs using digital, the endek motifs were printed using the digital printing method. The result of the digital printing was coloured afterwards, using the tie dye technique.

**4.5 Results**

The results of the internship/practice work process at Agung Bali Collection produced 6 works, where the results of this work are in the form of scarf or multifunctional hijab products with the exploration of endek motifs with the use of digital printing and colouring using tie dye colouring techniques.





**Figure 3.** The Result of the Work  
(Source: Personal documentation, 2024)

The process of making this hijab work goes through several stages to achieve the final result, here are the stages in the process of making this work:

#### 1. Designing Process



**Figure 4.** Design process  
(Source: Personal Documentation, 2024)

The initial process in making the hijab is designing the design of the hijab, through exploration of endek motifs. This design uses digital software to facilitate the design and transfer files for the printing stage in the next process.

#### 2. Process of Transferring Material to the Field

This process is a process of design results that have been transferred in the form of files which will then be printed on a field in the form of hijab fabric with ultrafine hijab material. This process is a printing process that uses material in the form of designs from endek motif designs and is printed using tools for textile printing.

#### 3. Colouring Process with Tie Dye Technique

This stage is the last process of making this hijab. Where at this stage gives colour to the hijab resulting from the printing process. This colouring process uses tie dye technique. In this colouring

technique, skills are needed in making tie dye motifs in the end. Skills in making the final motif can be done intentionally or unintentionally, namely by folding the fabric as desired and tying the fabric to achieve the desired motif.



**Figure 5.** Colouring Process  
(Source: Personal Documentation, 2024)

## 5. CONCLUSION

During the internship process at Agung Bali Collection, the author identified and collected data through observation, interviews, literature and practical work. During the implementation of internship activities at Agung Bali Collection, students gain a lot of experience and knowledge about the weaving industry and the art of weaving. Agung Bali Collection provides a place for students to learn about the process of weaving from the initial process to the final process. In this case, the author uses the process of making designs or motifs to serve as the final result of this internship/practice work. Making motifs by utilising technology using an illustration application called Ibis Paint X and printing motifs using digital printing. After the digital printing of the endek motif is complete, the author uses the tie dye technique for colouring and can produce a unique pattern intentionally or unintentionally on the finished hijab printing. Overall, the internship at Agung Bali Collection provided the author with knowledge in the weaving industry and the weaving process. Especially in the process of sketching endek motifs that the author can develop. As a result of this internship experience, students can prepare to face challenges in the creative and art industry, and can contribute to continuing to preserve and develop their own culture.

## REFERENCES

- [1] E.Azwar, "Field Experience Programme (Internship) on Self-Confidence of Physical Education Health and Recreation Students", Jurnal Penjaskesrek, vol.6, no.2, 213, October 2019
- [2] K.Saharja & S.Aisyah, "The Effectiveness of Digital Printing in Producing Print Products and its Effect on Consumers", Journal of Politeknik Negeri Media Kreatif, vol.14, no.11, 3432, June 2020
- [3] I Gede Surya Rahayuda, "Texture Analysis of Endek Fabric Motif Patterns Using the KNN (K Nearest Neighbor) Classification Method, International Journal of Advanced Computer Science and Applications, vol.6, no.9, 205, 2015

- [4] Heldanita, "Creativity Development Through Exploration", Scientific Journal of Early Childhood Growth and Development, vol.3, no.1, 58, March 2018
- [5] Y.Rukiah, K.Susanti, and F.Saptodewo, "Batik Tie Dye Training to Dasawisma Kder as an Enhancement of Creativity, Jurnal Darma Cendekia, vol.1, no.2, 48, December 2022
- [6] R.Yudiantara, Damayanti, N.Pamungkas, M.Gufroni, "Multiuser Web-Based Student Report Card Processing Information System", Journal of Information Technology and Systems, vol.2, no.4, December 2021
- [7] M.Ahsanulhaq, "Shaping the Religious Character of Students Through the Habituation Method", Journal of Prakarsa Paedagogia, vol.2, no.1, 27, June 2019
- [8] M.Sari, A.Asmendri "Library Research in Science Education Research", Journal of Research in Science and Science Education, vol.6, no.1, 43, 2020
- [9] G.Wiguna, W.Munawar, S.H Untung, "Practical Methods in Automotive Vocational Learning for Learners with Disabilities", Journal of Mechanical Engineering Education, vol.1, no.2, 262, December 2014.