

# Computer Embroidery Design in Tasikmalaya, West Java, Indonesia

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**Abstract**—Application computer embroidery in Tasikmalaya, Indonesia, is a new media and technology in the field of embroidery arts. Not many people know how to work on Tasikmalaya computer embroidery which includes the design process, various motif designs, color combinations and types of design products. To overcome this gap, research was carried out through observations and interviews at 5 locations of computer embroidery craftsmen in Tasikmalaya. Documentation study in the form of a sample of 1000 pieces of embroidery motif design drawings, wilcom embroidery e2 program guidebooks, and brochures from computer embroidery designers. Computer embroidery in Tasikmalaya was made to fulfill the demand for production mass in the form of direct embroidery on fabrics and embroidery patches for the need to decorate fabrics and clothing. The process of making computer embroidery using the software program wilcom embroidery e2. The making of embroidery motifs tailored to consumer orders and fashion developments include naturalist, geometric, decorative designs, human figures, natural objects, calligraphy, abstract motifs, lettering, and logos. Ornamental patterns use free patterns, fringe patterns, field filling patterns, sow patterns, and sequential patterns. Color combinations of Tasikmalaya embroidery colors monochromatic and polychromatic. Designers and craftsmen working according to customer orders, resulting not seem symbolic meaning and characteristics of computer embroidery Tasikmalaya.

**Keywords**—computer embroidery; Tasikmalaya embroidery; embroidery design; embroidery motif

## I. INTRODUCTION

Embroidery is a cloth decorating technique using needles and thread as the main ingredient [1]. Embroidery display in the form of the composition of yarn composition on fabric that forms an ornamental pattern that is done by hand or sewing machine [2]. The decorative pattern is a reference form to produce a new ornate form. Some decorative patterns used in embroidery are stocking patterns, sequential patterns, fringe patterns, filling patterns, and free patterns [3,4]. Tasikmalaya, West Java, Indonesia is an area that produces embroidery home industries that are growing very rapidly. Requests for embroidery orders not only come from Indonesia but also from outside Indonesia. To meet the demand for mass production, Tasikmalaya embroidery works are not only done manually but also use computer embroidery machines. The work of computer embroidery is very different from the work of

manual embroidery, computer embroidery requires the stage of designing through a computer program before it is applied to embroidery.



Photograph. Yulio Delon collection.

Fig. 1. Unidentified photographer. Tasikmalaya computer embroidery designers are operating computer embroidery machine, 2017.

From several journal sources, there have been many studies related to embroidery, including documentation of the use of designs and traditional motifs on Chamba fabric embroidery. Chamba embroidery has a symbolic cultural meaning of trust that is deeply rooted in its society. This embroidery uses the simplest raw materials and stitches. Researchers used a design catalog to provide an understanding of the understanding of Chamba embroidery craftsmen regarding traditional themes, designs, and motifs [5]. A different study of "Silk Thread Martyrs" Palestinian embroidery is discussing the exhibition of fashion collections at an embroidery exhibition in a contemporary context including Palestinian embroidery techniques [6]. Then another study on the biography of a fashion designer named Mariska Karasz's who created embroidered wall hangings after the Second World War, Mariska's work was exhibited at the Contemporary Craft Museum in New York City and became a reference for craft history. His works in the form of embroidery are dominated by landscape objects [7]. There is also the use of art history databases to classify designs for embroidery related to gender and social context [8].

But specifically reviewing computer embroidery in Tasikmalaya, Indonesia has not been researched yet. This is what attracts us to research Tasikmalaya computer embroidery and archive the development of Tasikmalaya computer embroidery including the process of making computer embroidery designs, computer embroidery motif designs, color combinations of designs and types of Tasikmalaya computer embroidery design products.

II. METHODS

This study method uses descriptive methods which are used to describe and provide an overview of the process of making computer embroidery designs, variations in the design of computer embroidery motifs, design color combinations and types of computer embroidery design products. Research informants were embroidery motif designers and computer embroidery craftsmen in Tasikmalaya, West Java, Indonesia.

Data collection by observing 5 locations of computer embroidery craftsmen, interviews, documentation in the form of sampling 1000 images of embroidery motif designs, wilcom embroidery program tutorial books and brochures from computer embroidery designers. The researcher acts as a research instrument. Data analysis is done by data reduction, data display, and data verification. To obtain the validity of the data in this study, actions were taken by extending participation, increasing persistence, triangulation and conducting auditing to strengthen the results of the study. The research procedure is through four stages, namely the stage before to the field, fieldwork, data analysis and report writing [9].

III. RESULTS AND DISCUSSION

Preparation of computer embroidery requires re-drawing with a special program called punching filmmaking. The name of the special program (software) includes wilcom embroidery studio e2. Wilcom EMB Studio e2 is a leading embroidery design software application that is multi decoration for the embellished decorated goods industry. This software combines wilcom and Corel draw x5 [10].



Photograph. Yulio Delon collecton

Fig. 2. Worksheet display wilcom embroidery studio e2 with floral motif. In the wilcom program consists of tools to make the design of computer embroidery in accordance with the form of the motif that you want to make.

Table 1 shows the outline of the process of making computer embroidery from the design preparation stage in the wilcom embroidery e2 program for the printing process on the computer embroidery machine.

TABLE I. PROCESS OF MAKING TASIKMALAYA COMPUTER EMBROIDERY

No.		Computer Embroidery
1	Preparation Stage	Enter the image that will be used as a reference for the embroidery motif in the form of a jpg or bmp file into a wilcom worksheet. The file is obtained from the results of scanning, camera, download, and others.
2	The phase of wilcom program operation	Tools on the wilcom program are tailored to the function of the wilcom program and the purpose and form of the design that you want to make. The techniques are: <ul style="list-style-type: none"> <li>• the technique of making the object type of cover.</li> <li>• a technique to make objects type of stitching.</li> <li>• techniques supporting.</li> <li>• techniques to arrange the path of the thread, and</li> <li>• the technique of the type of effect.</li> </ul>
3	Finishing stage	<ul style="list-style-type: none"> <li>• The process of determining the start and end points, the first point of storing machine needles on the material to be embroidered.</li> <li>• Making stitches around the entire design, these stitches are temporary to function as reinforcement or to attach material to be embroidered on hard fabrics that have been installed on the machine frame. This stitch is made if the design we make is embroidered directly on the material (not patch) and embroidered without using Opel (court).</li> <li>• Print the image as a reference for the computer embroidery machine operator.</li> <li>• Save the design to a flash disk or floppy disk to be recorded to a computer embroidery machine.</li> </ul>
4	Print stage	<ul style="list-style-type: none"> <li>• The "punching" design results are stored on a floppy disk or flash disk and then inserted into the head of the computer embroidery machine and the machine is adjusted according to the design.</li> <li>• Operators operate embroidery machines to print motifs according to design.</li> </ul>

As a result, Tasikmalaya computer embroidery is fairly neat and meets the requirements of mass production. Even so, the results remain dependent on the embroidery machine operator and punching film designer, because the embroidery arrangement, the puncture density will affect the results. An operator must also be able to know the material to be embroidered such as embroidering the material of shirts, Lacoste, Diadora and then have to wear a hard cloth that is good and thick so as not to wrinkle. Looking at the complicated manufacturing process and requiring special skills, a designer is also required to always be up to date on the development of fashion and design following market demands and tastes. This

resulted in Tasikmalaya computer embroidery not appearing symbolic meaning and characteristic.

The idea of creating a Tasikmalaya computer embroidery design mainly comes from the surrounding environment and internet resources. Tasikmalaya's computer embroidery motif design consists of a group of naturalist motifs, namely flora motifs (leaf motifs, stems, grass, variations of flowers, variations in the shape of fruits, tree motifs), motifs of fauna (example sparrows, peacocks, butterflies, chickens), landscape motifs, cloud motifs, moon motifs, and star motifs. Ornamental motifs of landscape including motifs that depict nature are a combination of several motifs that form a whole of natural depiction [11]. The group of geometric motifs consists of shapes that can be measured and symmetrical such as circular and square shapes [12]. Decorative motifs, motifs of human figures (famous figures), natural motifs of objects (usually in institutional or community logo motifs), calligraphic motifs and abstract ornamental motifs that point to unrecognized motifs of the original object they depict or are indeed objects abstract, although not many in number, abstract decorative motifs are also found in Tasikmalaya computer embroidery motifs [13].



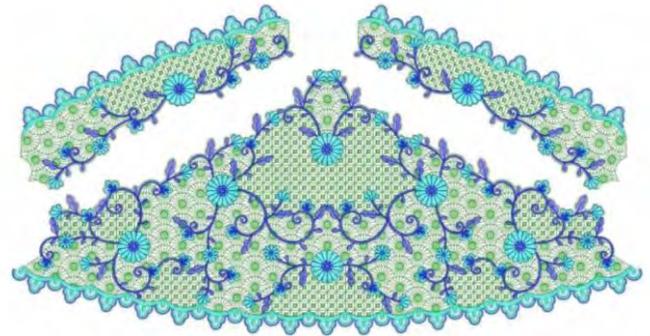
Photograph. Faaris Naura Collection.

Fig. 3. Landscape ornamental motif on Tasikmalaya computer embroidery. The objects in this design are bird motif, star motif, flora motif, tree branches motif and abstract motif.

In processing the motive object, the embroidery designer changes the shape of the object according to the tastes and demands of the consumer. When analyzed, the changes in the form of the object of computer embroidery motifs mostly use form changes by stylisation and also by transformation [14].

Tasikmalaya's computer embroidery decorative patterns are also very rich in almost all decorative patterns used in embroidery motif designs, namely free patterns, fringe patterns, field filling patterns, sow patterns, and strung patterns. The color combinations used in Tasikmalaya computer embroidery

are monochromatic and polychromatic colors [15]. Colors are chosen according to designer tastes or consumer demand. Most of them match the color of the contrasting thread or matching the fabric to be embroidered.



Photograph. Faaris Naura Collection.

Fig. 4. Monochromatic blue color combination on Tasikmalaya computer embroidery design for decoration of mukena patches. Decorative patterns fill in the fields.



Photograph. Faaris Naura Collection

Fig. 5. Polychromatic colors on computer embroidery designs for table cloths. This design uses geometric and decorative motifs.



Photograph. Faaris Naura Collection.

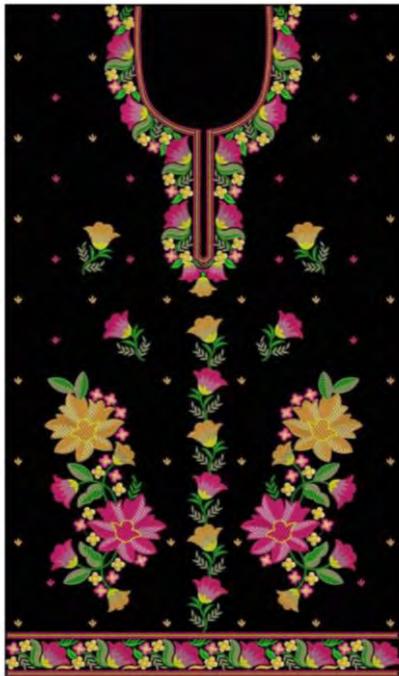
Fig. 6. Calligraphy motif computer embroidery design on wilcom worksheets. Calligraphy motifs are used on product such as peci, prayer mats, wall hangings, flags and keranda cover fabric.

Tasikmalaya types of computer embroidery design products include embroidery motif designs for a robe, mukena, kerudung, koko, peci, logo, kebaya, prayer mat, bag, blouse, shawl, tablecloth, wall hangings, keranda cover fabric, lace and various kinds of motifs for embroidery embellishments in decorating fabrics and clothing.



Photograph. Faris Naura Collection.

Fig. 7. Tasikmalaya computer embroidery design stylized flora motifs and shell motifs.



Photograph. Faaris Naura Collection.

Fig. 8. Computer embroidery designs for bliouses and robes. Design uses polychromatic color and several kinds of decorative patterns, namely free patterns, namely free.

#### IV. CONCLUSION

Tasikmalaya computer embroidery, Indonesia generally functioned only to print embroidery designs in bulk quantities, namely in the form of embroidered patches for various clothing decorating needs which in the end were sewn with the help of a manual sewing machine. Although some are embroidered directly on cloth such as lettering and a brand or agency logo. Tasikmalaya computer embroidery motifs are very varied, but the more dominating are the naturalist flora, geometric and decorative motifs. Designers already have an understanding of techniques for making decorative designs. Various forms of motif designs made have no impact on the characteristics of Tasikmalaya embroidery in terms of the design of motif shapes, most computer embroidery designs only show the repetition motifs that already exist in line with the development of fashion and market tastes.

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