LAPORAN PENELITIAN

"Inovasi Desain Mebel Etnik-Modern dengan Penggunaan Material Kain Tenun Ikat NTT"

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Ethnic-Modern Furniture Design Innovations with Use of NTT Ikat Woven Fabrics

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Abstract-NTT Ikat Weaving is one of Indonesia's traditional cultural heritages that must be preserved. Weaving is one of the sub-sectors of the creative industry that is being promoted by the Government in supporting the Indonesian economic sector. Currently the use of weaving in interior design is only limited to the decoration function. Even though the uniqueness of the patterns, motifs, colors and textures of the woven fabrics has the opportunity to be explored into more massive water furniture materials. This research contains exploration of ethnic-modern style furniture designs using NTT woven fabrics combined with wood materials and other furniture accessories. This research is an experimental research which is divided into two stages, namely the design exploration stage and the prototype production stage. The purpose of this research is to generate innovations in the interior design and furniture industry, preserve local values in interior design and contribute to the creative economy. The output of this research is a prototype of an ethnic-modern style furniture with detailed construction of the connection between wood as the main raw material and NTT woven cloth as the supporting material.

Keywords—Ikat Woven, NTT, Furniture, Ethnic, Modern

I. INTRODUCTION

A. Background

The woven cloth or the ikat cloth is one of Indonesia's cultural treasures that must be preserved. Ikat weaving is an Indonesian textile craft in the form of a cloth woven from strands previously tied and dipped in a dye. Traditional Ikat weaving is usually made using a loom instead of a machine and uses natural dyes. Apart from being used as sarongs and scarves, weaving is often sewn to make clothes and other clothing items, as well as to decorate the interior. The use of woven fabrics in interiors is still only a decoration function. The woven cloth only hangs on the wall, as a table cover or pillowcase. The existence of unique patterns and motifs on the woven cloth makes the fabric unable to just cut it because it will make the pattern or image incomplete so that the fabric will lose its meaning. Several patterns and motifs of woven cloth also have sacred meanings so that the use of fabrics is limited.

In Indonesia, woven fabrics are found in almost all archipelago areas, especially in Sumatra, Kalimantan, Sulawesi, Bali, NTB and NTT. Each ikat fabric has its own distinctive material, style and color in accordance with the cultural philosophy behind the manufacture of this fabric. The woven cloth has a separate uniqueness and a high aesthetic value. The use of tie fabrics in the interior of the room is usually to create an ethnic atmosphere. Nowadays, ethnic design styles in the interior are often combined with more modern furniture so that the room is not too old-fashioned and remains stylish.

The use of NTT woven fabrics as an alternative to water furniture has not been explored much. In fact, the colors, patterns and textures of NTT's woven fabrics are very attractive to be combined with the dominant wood material in water furniture. Therefore, this experimental research is important to do, in addition to producing novelty in furniture design, this research also aims to raise the traditional values of Indonesia which are starting to be responded to in today's modern era.

B. Objectives

The specific objectives of this research are:

- 1. Knowing the ratio of the segment division of patterns and image motifs on NTT woven fabrics and the construction details of the connection of the woven cloth with wood and other furniture accessories;
- 2. Producing innovative prototypes for modern ethnic style furniture designs that combine wood material with NTT woven fabrics and other accessories.

The general objectives of this research are:

- 1. Produce novelty in the interior design and furniture industry;
- 2. Preserving traditional values of Indonesia and participating in developing the industry and creative economy.

II. OVERVIEW

A. Overview of NTT Ikat Woven Fabrics

Weaving is a handicraft in the form of material (cloth) made of yarn (cotton, silk, etc.) by inserting or inserting feed crosswise on the function. Arby, et al. (1995: 8) states that weaving is practiced in almost all parts of the archipelago and the assumption has been developing in Java since the 10th century. According to history, the term "Tenun Ikat" was first introduced by an Indonesian ethnographer from the Netherlands, GP Rouffaen 1900. Rouffaen researched how to make ornaments and at the same time the process of dyeing or coloring to form decorative patterns according to existing ties. For the name of this technique, Rouffaen borrowed a Malay term, namely "Ikat" so it was called "Tenun Ikat".

The tradition of weaving has been carried out by Indonesian women since ancient times. Areas in Indonesia that are famous for their woven ties include Toraja, Sintang, Jepara, Bali, Lombok, Sumbawa, Sumba, Flores and Timor. Gratha and Achjadi (2016: 18) state that all ikat functions have regional features and characteristics. There is a similarity in style, technique and decoration, all of which are related to the history and cultural background of a community. Saputra (2019) states that in many symbols and works, woven cloth is the language of life, as daily clothing in protecting the body, as traditional clothing and dances, as appreciation and honor in marriage, as appreciation and prayer in death ceremonies, as symbols and efforts to improve social balance, as tribal symbols and motifs in the form of certain patterns and designs.

East Nusa Tenggara is a province located in the most southeastern part of Indonesia, in the form of an archipelago consisting of the islands of Flores, Sumba, Timor, Savu and Roti. All of these islands are famous for their warp ties which are sometimes added with shells, beads, and seeds and may also be combined with coloring applied with a brush in small parts or other weaving techniques (Gratha and Achjadi, 2016: 99).

B. The phillosophy of NTT woven motifs and patterns

The theory of decorative patterns on objects made by coastal communities has been researched by Sumardjo (2014). According to Sumardjo, cultural objects, including art objects, which can be read to compile a basic structure of tribal culture, consist of prehistoric relics, tribal mythology, rural people's oral expressions, performances, fine arts, music, plays, buildings, culinary, tools, traditional houses, traditional villages, offerings, and many more. Sumardjo (2014: 41) states that Pattern Two is the core structure of culture. This pattern is a relationship between two entities that are of opposite substance but need each other for the continuity of their respective existence.

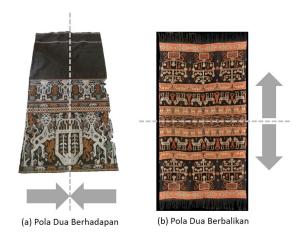


Fig. 1. Example of "Two Pattern" Weaving Motif (Doc: https://id.pinterest.com/, accessed [30/04/2020])

Furthermore, Sumardjo (2014: 47) states that Pattern Two emphasizes unity-contradictions that produce dynamic structures that are alternately, lose each other, win each other, turn off and turn on, ask and give, a reciprocal relationship. Pattern Two is structured by the core paradox. This is to distinguish other forms of paradoxes which later develop into Pattern Three, Pattern Four and Pattern Five.



Fig. 2. Examples of "Four Pattern" Weaving Motif (Doc: https://id.pinterest.com/, accessed [30/04/2020])

The gathering community only sees two categories, namely Heaven and Earth with everything in it, while the island, coastal and marine communities view this world in four categories, namely Heaven, Earth (Human), Land and Sea. The division of Pattern Four in seafaring society is its core structure, and the four categories are in fact One (One). The principle of separation still exists but also marriage (harmony) also exists. Sumardjo (2014: 66) continues that in the art of the house (architecture), this Four Pattern sign can be seen in door decorations and woven fabrics in the form of diamonds or rectangles.

III. ETHNIC FURNITURE EXPLORATION

A. NTT woven fabric characteristic

The woven fabric used in this experiment is the Mamuli motif Pahikung woven sarong with natural dye dyed cotton yarn. This fabric is produced by woven cloth craftsmen from Waingapu, East Sumba. The Pahikung sarong is made by sewing two liran (sheets) of cloth with different motifs. The top is plain in blue with a plain border in red and white, and the bottom is in Mamuli with a red and white geometric ornament border. The sarong used is 113cm x 68cm in size so that when it is stretched you will get a cloth with a length of 113cm and a width of 136cm with four large Mamuli motifs. The size of the motif of one Mamuli is 33cm x 34cm.

The process of coloring the Sumba tie weaving is always preceded by giving it a blue color. To get the blue color, the natural dye used is Wora or Tarum or Indigo (Indigo Tinctoria). The part taken from this plant is the leaves, soaking the leaves of Wora or Tarum or Tilapia mixed with Wai Awu or kitchen ash and whiting, to obtain light blue, dark blue and black colors. To get the red color, Kombu or noni (Morinda Citrifolia) roots are used. The small roots give a better red color. Noni or Kombu used are small leaf and small fruit noni, because there are two types, namely the leafy and large fruit and the other type is the leafy and small fruit (https://strategi.co.id/proses-pembuatan-tenun-ikat-and-tenun-pahikung-sumba-timur /, accessed [09/08/2020]).



Fig. 3. East Sumba Pahikung woven sarong (Doc: Detty Fitriany, 2020)

The size of the motifs on the Pahikung woven fabric made with ATBM is not very precise due to the expansion and shrinkage of the threads that are stretched and it is estimated that the weaver's speed factor from day to day is also not constant when weaving. In addition, there is a slight difference in the dark-light color of the blue thread which is estimated due to the difference in the mixture concentration

of the Indigo, wai awu and whiting substances used during the dyeing process. However, the imperfections of the color, density and texture of the fabric can at some point be neglected.



Fig. 4. Details of Mamuli motif of Pahikung woven fabric (Doc: Detty Fitriany, 2020)

B. Wood characteristic

There are two kinds of wood raw materials that will be used in this experiment, namely Mahogany wood and Weru wood (Ki Hiang). Mahogany wood has a light wood color and a subtle grain appearance while Ki Hiang wood has an older wood color with a stronger grain appearance.



Fig. 5. Alternative solid wood raw materials (Documentation: Detty Fitriany, 2020)

Mahogany wood including durable class III and strong class II, III. The level of durability and strength of this wood is not too high, so it is easily attacked by termites and susceptible to weather changes. Mahogany wood is usually used for indoor furniture. Mahogany wood grain is smooth and diverse. This appearance works best when finished with natural or classic colors. The cross-section of the wood is very stable, known for its strength of shrinkage and deformation. In addition, the natural oil content is low,

making it possible to finish the duco paint model without the risk of leaving a yellowish stain like teak (https://perhutani.co.id/product/kayu-mahoni/, accessed [02/09/20]). Meanwhile, Weru wood is considered durable class II and strong class II. Weru wood is classified into medium to heavy wood, with a density of 600-950 kg / m3 at 15% fluid content, strong, durable, and resistant to termite attacks (http://weru.departemen.web.id/, accessed [02 / 09/20]). The wood is brown with clear wood grain grooves.

C. Exploration of ethnic-modern furniture designs

Generally, ethnic-modern furniture combines both ethnic and modern elements of furniture. Both can be obtained from a combination of the use of materials and styles (decoration).



Fig. 5. Example of ethnic-modern furniture (Doc: https://id.pinterest.com/, accessed [01/09/2020])

One of the outcomes of this research is to produce a prototype of ethnic-modern furniture for large storage facilities measuring 45x180x60cm. Some of the design alternatives that have been made can be seen in the pictures below.

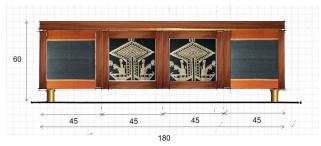


Fig. 6. Example of 4-door credenza (Doc: Detty Fitriany, 2020)



Fig. 7. Example of cupboard with drawers (Doc: Detty Fitriany, 2020)

IV. CONCLUSION

Making the prototypes of ethnic-modern furniture using NTT woven fabrics needs to pay attention to the size and pattern / motif on the fabric. The pattern / motif module on this fabric becomes the initial reference for the module size and the division of the furniture segments to be made. One of the problems encountered in this experiment is that it is not symmetrical and the precision of the woven fabric motif is made with ATBM so that it needs to be adjusted and made precision first.

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