

THE POTENTIAL VALUE OF MARBLING TECHNIQUE ON CREATIVE INDUSTRY

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Abstract: Marbling technique was originally applied as a decoration on paper in Persia around the 15th century, as the development especially in the fashion industry, the technique is now beginning to be applied on textile. Some designers got interested in this technique and apply them on high fashion and high value accessories. This research will parse potential of marbling technique especially in the fashion industry as a part of the growth of the creative industries in the country. This research uses qualitative descriptive method with the literature study approach and practical research in the form of feedback and review of the practitioner.

Keywords: *Marbling technique, Fashion, Creative industry.*

1. INTRODUCTION

In the past, human uses textile to protect the body from environmental threat. On the development, textile is not just a tool to protect the body, but has been a hallmark of tradition and over time various technology in textile processing have been produced. In Indonesia, the textile industry is one of the industry's national priorities that are still prospective for development. With a population over than 230 million peoples, Indonesia is becoming a very potential market. But the fact that exist today, the number of textile use in Indonesia is still low especially if compared with the use of textiles in the neighboring country.

Based on the WTO (World Trade Organization), the use of textiles in Indonesia amounted to 4.3 kilograms per capita per year. While Malaysia was up to 8 kilograms per capita per year and Singapore 11 kilograms per capita per year. Head of Department Perindustrian dan Perdagangan of West Java, Ferry Safwan said that the number of textile use in Indonesia is still low, because the public has not seen the textile as a lifestyle, but rather on the use of the goods. The Government of West Java province has made efforts to encourage community makes textile as a lifestyle, including by holding a fashion show like 'Jabar Ngagaya' in front of Gedung Sate, Diponegoro street, Bandung. The event 'Jabar Ngagaya' aims to respect and to further improve on products textiles awarnes (DetikBandung, Saturday, 16/07/2010 8:08 PM GMT).

From the various techniques of textile production, marbling is one of the techniques that have enormous development potential because it has not been popular in the community and haven't done much development. It can be seen from the survey results that researchers did in 50 respondents (25 males and 25 females), by asking the questions related to the technique of marbling. The result of the combined sample 50 people, only four people know about marbling technique term. The second question, the author shows the sample fabric marbling, the result just as much as 3 men and 4 women who feel familiar with the motif of the rest only ever seen and not even know it at all. When given the question of whether these motifs is interesting, as many as 20 men and 23 women agree with the question. As for the question of whether the motive be suitable applied on fashion products, as many as 23 men and 23 women were declared fit.

Based on the facts that have been obtained, researcher interested and intend to do the development of the marbling technique on textiles. The literature study, field survey and a series of experiments

will be done on this marbling techniques to obtain an alternative innovative textile processing technique. Results of the research are expected to be useful to society and can stimulate the emergence of new ideas in the design of textile products.

The research will be conducted in Bandung and Jakarta city with creative industry practitioners as the object especially in the field of fashion. The reason researcher choses Bandung and Jakarta as the research location because Bandung and Jakarta can represent major cities in Indonesia with the rapid development of creative industries, as well as a conducive climate in the field of creativity and community support that is open to new ideas.

2. THEORETICAL BACKGROUND

Marbling techniques or ' Ebru ' in Turks is a traditional decorative form using a special method. ' Ebru ' is derived from Persian ' ebr, ' which means ' cloud '. The word ' ebri ' later evolved from this assumption, meaning ' like the cloud ' or ' cloudy, ' and assimilated into Turkey in the form of ' Ebru '. Marbling does not really give the impression of clouds. Another possibility decline in the word ' Ebru ' from '-Ruy ab, Persian ' meaning ' water level '.

The word ' ebru ' is defined in the modern dictionary as the "wavy colored patterns on paper". Richard j. Wolfe in his book, *Marbled Paper: it's history, techniques, and patterns*, contains definition of the marbling technique into two. First, Marbling is an art with special effects and patterns, which result from the colors (paint) that floats on the water/liquid, with some preparation tools and materials, it can then form the colors that float on the surface of the water/liquid becomes a motif and then moved on to a sheet of paper with put it above the surface of the water. And the second, marbling definition in simple terms-that is, make the motives of the floating colors (paint) on the water/liquid with putting a sheet of paper on top of the floating paint surface and then move it.

Researchers define this marbling technique as one method of surface design, namely the technique of decorating fabric or paper with how to play the colors floating above a medium. Medium used on this marbling is water or gel.

2.1 Innovation and Innovative Behavior

The definition of Innovation was first propounded by Schumpeter in 1934. Innovation according to Schumpeter is a creating effort and implement something into one new combination. New term described by Adair (1996) not that original but rather to the newness (novelty), a "novelty" is associated with:

- a. Dimensions
This means that a product or service is seen as something new somewhere but not elsewhere.
- b. The time dimension → invention
That is, the novelty in its time. For example, Borobudur Temple which is an ancient building is a work of the innovative nature in his era.

2.2 Textiles and Textile Products

Textiles and Textile Products Definition

Textile derived from latin ' textiles ' which means ' weaving or weave '. However it is generally interpreted as a textile item/object that is derived from the raw material fibers (cotton is generally, polyester, rayon) woven (spinning) into yarn and then woven/weaved (weaving) or knit (knitting) into the fabric after consummation (finishing) is used for raw material of textile products. Textile products are apparel (garment), household textiles, and industrial needs.

Fiber is the most important raw materials for textiles. Fiber is a solid object that has special character, the length size relatively larger than the width size. Fibre obtained/derived from natural and man made, that are detailed as follows:

1. Natural Fibres (natural fibers), is a vegetable fiber (such as cotton, linen, ramie, kapok, Roselle, Jutes, sisal, manila, coconut, leaf/hemp, fiber) and animal fibers (such as wool, silk, cashmere, camel, alpaca, llama, vicuna).
2. Man made fibers, is an artificial fiber (such as rayon, acetate), synthetics fiber (such as polyester/acrylic, tetoron, nylon/polyamide), and minerals (such as asbestos, glass, metal).

For textiles, fibers that are widely used are:

1. Cotton, the fiber is obtained from the seeds of the cotton plant taht is a kind of shrubs and widely used for clothing for its absorbing sweat, making it comfortable to wear and good dimension stability.
2. Rayon, derived from wood and purified by chemical substances. Many used to such household textiles fabric blinds/Curtains, chairs and tables, lace fabrics, fabrics for clothing and underwear. A mixture of rayon and polyester is widely used for fabrics.
3. Polyester, made from petroleum, acid terephthalate purified (pirified terephtalate acid/PTA) and ethylene glycol. Widely used for polyester fabrics (mixed with cotton/rayon) fabric, ties, curtains/curtains, textile industry (conveyor, insulator), fire fighting pipe, rope, nets, temali fabric screen and tarps.
4. Whereas other fibers for textiles are:
 - a. Polyamide/nylon, used for stocking/socks, parachute cloth, rope, tarps, mesh, belt, fabrics for industrial tires, floats, carpets, fabric filters.
 - b. Polyurethane (spandex), used for women's clothing, belts, t-shirts, hand surgery, socks.
 - c. Polyethylene, used for cloth upholstery on car seats/furniture, fabrics for protective clothing in the industry who are using substances corrosive chemicals, fabric filters for filtering with low temperature, and the effect of tender.
 - d. Polypropylene, used for industrial use, rope, sack wrapping, fish nets, rugs/carpet.
 - e. Poliakrilik, used for knit fabric for blankets, sweaters, scarft, window curtain, chemical protective clothing, fabric filter chemicals, water softener filter, fabric-other hairy.
 - f. Glass Fibers, are used for electrical insulation, the lamp, gift-wrapping copper wire, wrapping the power cord.
 - g. Fibre Carbon, used for the body of the aircraft and spacecraft.
 - h. Metal/Metal Fibres, yarn used for decoration in textiles, household textile or clothing.

Fabric is the result of plaited/woven or knitted yarns process. But the yarn spinning results couldn't be directly woven or knitted, because it will break up easily when there is friction between the threads of warp and weft threads at the time of the process. Therefore, there is a work process must be prepared in advance before the thread-the thread woven or knitted. The process sequentially:

1. Yarns spun from the engine (ring spinning) shaped roll pallet cones and then rolled up again through the rolling machine (winding machine) into the form of a cones scroll, with a view to the next process to make it easier on the machine paired scrolling (reeling) in the direction of the warp yarn leveling processes (warping). If In the resulting fabric desired

color effect between warp and weft Fabric Glove or cloth-like Motif, then linen must through the yarn dying process.

2. After that, to make threads are more slippery so as not to break up easily when rub together, then processed to the sizing machine for sizing;
3. After dry from sizing, the threads could be processed for woven or knitted. The process, woven (with threads of warp and weft in weaving machines) or knit (knitting warp knitting machines and feed) by means of the crossed movement between two threads that are done regularly, continually and repeatedly with the same movements so that it becomes a form of matting.

3. THE RESEARCH METHOD

The research is a qualitative descriptive with research methods is divided into two, namely:

1. Literature Research Plan
Done to get the definition and understanding of the primary against an object which will be examined as well as the other theories that can support the research.
2. Practical Research Plan
After the research is done, writer will come up to the reviewer, the expert mode/fashion designer, and fashion products, producers to get feedback on the results of research that has been done as a reference in the conduct of the evaluation.

4. RESULT AND DISCUSSION

Researchers conduct interviews to three designers to know their the responses, opinions, and suggestions about the marbling techniques that applied to the textile medium. Researchers came to the third directly and interviewed the designers. The first designer is Didit Hediprasetyo, one of the talented young fashion designer. He began his career with educated at Parson school of fashion in New York and Paris. After graduating from intstitusinya, Didit Hediprasetyo began his career with a mark of his own in Paris. Didit has been showing 3 times a single fashion show in Paris, France. Its inaugural show, held at Paris Fashion Week Spring/Summer 2011, 2011 Spring/Summer and Fall/Winter 201. Second is Tuty Cholid, a senior fashion designer in Indonesia, had a career in fashion almost 24 years. Cholid tuty also joined in the bonds of Indonesia fashion designers (IPMI), as one of the senior members. Tuty Cholid which also focus in the field of development of traditional cloth, Indonesia is currently starting to focus by producing a limited edition fashion products and also some clients from customade especially. Third is Ririe Cholid, designer who are new to began his career during the last 3 years, and have already ventured to open his own brandnya in mid-2011. Textile Craft graduates ITB 2008, also a career in the field of fabric designers are freelance in some senior Indonesian fashion designer.

In general the results of the interview by asking seven questions are as follows:

1. The level of popularity of marbling techniques
In general, most designers are not familiar with this technique, although Didit Hediprasetyo heard the term marbling technique, but do not know how technical techniques.
2. The opinion of the designers about the marbling technique
They considered the results of this technique are innovative, fresh, fascinating and has a great potential if applied to fashion products.
3. The most suitable material for fashion products of marbling textile
These three designers who were interviewed answered the marbling made from satin or silk is the best. Marbling on cotton canvas and materials they deem interesting and potential.
4. The worth price range for the work this marbling techniques

RP. 250.000,-until Rp 350,000,-/meter.

5. Market segmentation for this marbling textiles
Middle-high end, women aged 25 years and over. Because according to them, adult women who are already old enough can understand and appreciate this technique. Besides the factor purchasing power is the reason why these criteria are considered as the right target market.
6. The potential selling power as fashion products
This technique is considered quite potential because still fairly rarely used and has great appeal. But the basic material selection factor is something important to note.



Figure I Didit Hediprasetyo's fashion collection made textiles marbling, to Paris Fashion Week Spring/Summer 2011.

(Source: Dokumentasi Didit Hediprasetyo, 2011)

5. CONCLUSION

From the experimental results to the marbling technique development, it can be concluded that the technique can be done with a variety of adjustment towards environmental conditions at a given place, provided based on fundamental principles that the dye must be floating above the surface of the liquid to the next moved on to a material such as paper and cloth. There are variations in the composition of the materials, tools, techniques and procedures in marbling, each providing a different effect on the end result. The main materials that researchers use is *cmc teknis* as a thickener liquid/gel-forming as well as pigment screen printing as a dye, works well on a material textile, and strength/power paste dyes have tested it strength. The use of the materials are also more profitable compared to use of carrageenan and acrylic paint (the most widely used materials currently on marbling) because, Bandung and Jakarta in addition to more easily obtained, the price is much lower and in textile material provides better results in terms of the brightness of the color.

Experiments towards the development of marbling techniques that has researchers did, produced an alternative method of surface textile design that has an innovation value and can give added-value to the basic cloth materials are applied with this technique.

1. Aesthetical value

Diverse composition and procedures on marbling technique produces diverse effect anyway. A pattern resembling a marble stone, cloud, wave, pulse, cracks, cell, until the pattern that resembles peacock feathers can be produced from the marbling technique. The similarity of the pattern motif that can be produced are organic and natural line character or shape. The character of water ever appears with the impression of waves and the effect of flow on the lines or fields of dye that floats above the surface of the liquid.

The resulting pattern of marbling can completely abstract but can also be arranged on the composition of lines or colours, fields. The impression of soft, bold, simple or elaborate

can be produced by the settings on the composition of the materials, the procedure of motifs creation and textile material selection.

2. Functional Value

Marbling Fabric did not suffer fading when washed, and having tested the rub in extreme use stones, the color remains stuck despite the State of the fabric has been ripped. From the results of these tests are known that this marbling fabric, have a value of the function and the material to be worthy of fashion products. The value of this function have also been proven by the material using by one of fashion designer as the main material on fashion design for both His Fashion Show in Paris.

3. Economic Value

Marbling textiles have a promising potential on economic value. *cmc teknis*, screen printing, pigment and binder gl as the main ingredient in addition to accessible, relatively inexpensive priced. 1 kg *cmc teknis* for Rp. 50.000,-can produce as much as 2 tabs of marbling size 1,5 m x 2 m with 3 cm depth, which can be used to make marbling fabric up to 20 m.

In terms of equipment use is quite simple, large tubs can be made from bricks laid and then covered with plastic. Combining motifs used tools like a stick and comb that can be made of wood and nails. As container tool for colors, bowl, basin or plastic bottles can be used.

4. Technical Value

Marbling textile experiments on textile that has researchers done produced some invention or innovations on prescription materials composition and patterns. These innovations include:

- a. The main use of well water, *cmc teknis*, binder and pigment on marbling textiles have better results compared to the use of distilled water, carrageenan and acrylic paint which is the world's most popular compositions on marbling present. Fixation with mordan alum which is a mandatory requirement on the marbling, abandoned, because it does not work on marbling textiles.
- b. the use of salt and risol (floor cleaner liquid) to produce hole effect on the marbling technique motif pattern have novelty value with the effect of melt, pit, and complicated detail.

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