



Faculty of Applied and Creative Arts

**APPLICATION OF WARP PAINTING TECHNIQUE
TO PRODUCE 'IKAT' EFFECTS**

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**Bachelor of Applied Arts with Honours
(Design Technology)
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APPLICATION OF WARP PAINTING TECHNIQUE TO PRODUCE 'IKAT' EFFECTS

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This project is submitted in partial fulfillment of
the requirements for the degree of Bachelor of Applied Arts with Honors
(Design Technology)

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TITLE: Application of Warp Painting Technique to Produce 'Ikat' Effects

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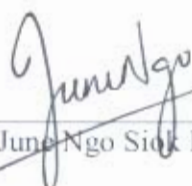
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ABSTRACT

Warp painting technique can produced effect similar to 'ikat' technique effect. This research focuses on creating 'ikat' effect by using warp painting technique. The objective of this research is to experiment painting on the warp threads. Various experiments were carried out to identify suitable threads to be. At the end of the experiment, a collection of 'ikat' effect fabric are produced and the products produced were validated to obtain feedback from consumers. The result shows that warp painting technique has the potential to reduce weaving time to produce 'ikat' effect woven fabric.

ABSTRAK

Teknik catan loseng menghasilkan efek yang hampir sama dengan teknik ikat loseng. Kajian ini memfokuskan kepada penghasilan efek ikat menggunakan teknik catan loseng. Objektif kajian ini adalah untuk mengeksperimentasi catan ke atas benang loseng. Pelbagai eksperimen dijalankan ke atas pelbagai jenis benang untuk mengenalpasti kesesuaian benang. Pada akhir kajian ini, satu koleksi kain tenunan berefek ikat dihasilkan dan validasi dijalankan untuk mendapat maklum balas tentang produk tenunan catan loseng daripada pengguna. Hasil kajian ini mendapati teknik catan loseng berpotensi mengurangkan masa menenun untuk menghasilkan tenunan efek ikat.

CHAPTER 1

INTRODUCTION

1.0 Background

From prehistory era, painting survive on the walls of caves in many parts of the world. One of the famous wall painting was at Lascaux Cave near Montignac, Dordogne, France. An images painted in cave shows for a magical purpose and attacking good luck through the medium of sympathetic magic. Besides that, it is also shows the process whereby imitating an action can cause it is to happen in reality.

Painting in textile has been practiced a long time ago. The prehistory people painted the skins and hides that they wore. Daubed textile is one of the textile that use painting technique to create design. Usually, the medium used is pigment mainly from earth and rocks applied with a stylus of bone or wood.

The invention of brush that can hold a reserve of pigment and can be manipulated with fluidity allows a much greater degree of sophistication than a finger, knife or stick.

In textile, there is so many techniques that people can applied to create a cloth. One of the technique that has been using since a long time ago was 'ikat' technique. *Warp 'ikat' is believed to be one of the most ancient of resist-dyeing techniques. It is practised on the threads before it is woven, in much the same way as woven cloth can be resist dyed using the tie and dye method.* (Gillow & Sentence, 1999, p. 141)

'ikat' technique one of the harder technique to apply. The weaver takes a year to produce one complete 'ikat' woven textile. In order to create the same 'ikat' effect, there are other methods that can be used. Table 1.1 shows the technique applied to create 'ikat' effects. This table was taken from an online thesis '*An Investigation of Ikat Weaving and Warp Printing and their Application to Contemporary Design.*'

Table 1.1 Alternative Methods Employed to Simulate the Ikat Appearance

Alternative Methods Employed to Simulate the Ikat Appearance	
TECHNIQUE	SURFACE
PRINTING	
Warp	Yarn
Block	Yarn/Fabric
Fabric Print	Fabric
DYEING	
Random	Yarn
Hand Painting	Yarn
WOVEN	
Jacquard	Fabric

'ikat' textile have its own characteristic. According to Ashby (1985, p.2), *"This characteristic blurring or flickering effect is the natural result of the positioning of each partially dyed threads in relation to its neighbour. This 'image profile' it shall be termed, occurs only on the perimeters of the motif where the colour changes, which creates softness and movement to the whole. When viewed from a distance, the finished fabric can sometimes create optical illusions"*.

From this warp 'ikat' technique, the blurring effect will appear from the surface of the warp threads. In order stimulate the same warp 'ikat' effect, warp painting technique has been selected. In 1980, the warp painting technique was carried out by ITM student before weaving using table loom. This technique is known as warp painting technique. The weavers needs to paint the design on the warp threads using reactive dyes before weaving.

Warp painting technique can help the weaver to explore more effects to produced 'ikat' weaving. This technique can reduced the time used to create the design compare to the traditional 'ikat' technique. The weaver can also produce contemporary 'ikat' weaving by using unlimited colours.

1.1 Problem Statement

Traditional 'ikat' woven textile takes a long time to finish a piece of woven cloth. According to Linggi (2001, p.32) “ ... ‘tie-and-dye’, ‘resist-dye’, and ‘warp-tie’ dyeing, Iban weaving is a complex process by which cotton (now also, silk) threads are interwoven and dyed in stages to produce the deep burgundy, indigo, and natural colours distinctive of their fabrics”. Tie-and-dye process is a complex process. The weaver needs to tie the threads first before dyeing the threads. If the weaver use more than one colour and design a complex design, the process of tie-and-dye will take long time to produce.

Warp printing technique is widely used in the textile industry compare to warp painting technique. Warp printing technique has always been use by the industry because this technique can create 'ikat' effects faster than warp painting technique. However, warp painting technique cannot control the colour.

Warp painting technique is rarely used in Malaysia. The industry uses warp painting not for mass production but for costume made purpose. Besides that, they use warp painting to paint the background colour but not for creating the design.

1.2 Research Questions

The research questions for this research are:

- 1.3.1 How to apply painting technique on the warp threads?
- 1.3.2 What type of threads and dyes suitable to be used with warp painting technique?

1.3 Research Objectives

This research embark with the following objectives:

- 1.4.1 To identify the threads and dyes suitable to be used in warp painting.
- 1.4.2 To experiment painting on warp threads to create 'ikat' effect.
- 1.4.3 To produce a collection 'ikat' effect woven cloth suitable for fashion accessories.
- 1.4.4 To validate the 'ikat' effect products from the research.

1.4 Research Scope

All of the research and experiments were carried out at the Faculty of Applied and Creative Arts (FACA). The equipment in FACA are able to support the experiment. To conduct the experiment, the researcher are using 8 harness jack-type loom to create a warp painting fabric. In painting process, the researcher are using flats brush to paint the background and round brush for the motif design. In order produces warp painting, natural fibre has been chosen. Besides that, synthetic yarn also used in the experiment. The weaver using synthetic yarn for weft threads. In order paint the design, the researcher are using synthetic dyes which is reactive dyes. Reactive dyes suitable for natural fibre.

1.5 Importance of Study

The importance of this study is to produce contemporary warp painted hand woven fabric. Warp painting produces the same effect as traditional warp 'ikat' woven fabric. From this research, the weaver can produce contemporary 'ikat' in a shorter time.

1.6 Research Limitation

The weaver is using plain weave to produce warp painting woven fabric. Plain weave requires only two harness loom and is the least expensive weave to produce. Plain weave's uninteresting surface serves as good ground for many finishes. It focusing on the design motif itself.

To produces warp painting, natural fibre has been chosen. The natural yarn that are used were cotton, spun silk, single twist silk and shantung silk. Besides that, synthetic yarn also used in the experiment. The weaver using synthetic yarn for weft threads.

In order paint the design, the researcher are using synthetic dyes which is reactive dyes. Reactive dyes suitable for natural fibre.

1.7 Research Hypothesis

From the research, warp painting technique can reduced the weaver's time to create a hand woven 'ikat' fabric. Traditional 'ikat' technique takes a longer time to complete a fabric. In order create more than one colour, traditional weaver need to dye-dry several times. Through this research, the weaver can produce a piece of 'ikat' woven cloth without having to go through so many process as a traditional weaver has to with the tie-die resist method.

Besides that, warp painting technique has a potential to be commercialized in textile hand weaving industry in Malaysia. Pua Kumbu is one of the traditional weaving technique that uses 'ikat' technique in Malaysia. By using warp painting technique, the researcher can create the 'ikat' design without losing the 'ikat' effects and commercialized it.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

The literature review is one of the findings of reading data to help researchers in the research. Past research is a method that is to finding the data that has been made by any person before based on the title and scope of the appropriate study. In this research, the researcher focused on 'ikat' technique and other method to create 'ikat' effects.

2.1 Literature Review

'Ikat' technique one of the harder technique to apply. The weaver takes a year to produce one complete 'ikat' woven textile. According Gillow and Sentence (1999, p.140), the patterning of the textile is obtained by tying fibre resists tightly around the warp threads that have been stretched out on a frame and then immersing the tied hanks in a dye bath. If, for example, the original thread is white and the dye bath blue, the tied portions form a white pattern against a blue background. By tying up further sections of the warp threads, untying certain section of the original tied resists, then immersing the tied hanks in a dye bath of different colour. When the dyeing process is completed the yarn is woven up to produce a warp-faced, patterned cloth.

The dying process took a long time according the design. More complicated the design, more time the weaver takes to create complete 'ikat' woven fabric. Nowadays, the weaver getting creative and innovative. Another method has been developed to create 'ikat' effect but easy to make the 'ikat' woven fabric.

The essential definition of the true Ikat is the hand process of producing resist dyed yarn for the purpose of creating intrinsically patterned woven fabric. Ashby (1985, p.6) also mention that additional procedures that simulate the Ikat appearance and have no connection with the resist technique. These constitute many forms.

In imitation 'ikat' effect, the weaver get a variety of pattern and design. Quickly produced in large uniform quantities by printing them either on to the finished fabric in imitation of batik or on the loom threads for imitation ikat. ". Saunders (1997,p.4) also say, "*The mass production of imitation 'ikat' sarongs for the local an tourist market is common to Java and Bali. It is a contemporary response to a changing market, yielding interesting interpretations of traditional techniques and patterns.*"