



EXPLORING THE SIGNIFICANCE OF YOK DOK TEXTILES FOR EDUCATION PURPOSES



A Thesis Submitted in Partial Fulfillment of the Requirements
for Doctor of Philosophy DESIGN ARTS (INTERNATIONAL PROGRAM)

Graduate School, Silpakorn University

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EXPLORING THE SIGNIFICANCE OF YOK DOK TEXTILES FOR EDUCATION
PURPOSES



By
MRS. Supamas JIAMRUNGSAN

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MRS. SUPAMAS JIAMRUNGSAN : EXPLORING THE SIGNIFICANCE OF YOK DOK TEXTILES FOR EDUCATION PURPOSES THESIS ADVISOR : ASSOCIATE PROFESSOR PAIROJ JAMUNI, Ed.D.

This research is concerned with how Thai brocade techniques. That called Pha Yok Dok in Thai with qualitative research was used in this study. There is a need use examine the current of the Yok Dok Textile in the Thailand communities. By surveying were applied to primarily in this research investigating the conserving those designs. Thai ancient Pha Yok Dok textiles for learning in the education process. The project has involved researching the warp and weft technique used by observing and note taking traditional of Pha Yok Dok with craftspeople who are old living in the north-eastern part of Thailand. The importance of learning textiles must have an understanding of the traditional fabric that will be used in Thai education today. To solve the problem that is the necessary classroom procedure learning plan. Develop in the future to be able to determine the distance and level of learning into steps.

However, for this industry to present the process begin to learn the basic weaving process that does not create difficulties because it can be used to practice further. To developing for their inheritor, so easy to learn. By doing removing lessons come from the woven methods that is a complex process which requires highly skilled weavers. Pha Yok Dok is one of the most prestigious silks in Thailand, those to use the warp and weft supplementary in technique. The notable characteristic of the Yok Dok textiles silk is its use of the interweaving of gold threads into the fabric, that creates a distinctive texture to the fabric rather than the usually woven fabric.

The results showed that the weave structure can be adapted by opening and closing the warp yarn on a draw frame. In this case, we use many different types of mesh as a weaving frame instead without using a hand loom or hair loom. The ideas from the experiment gave rise to the idea of developing into modern art. As part of the project, the researcher designed a series of fabric artworks based on the inspiration of Thai literature (Khon). So, the original, traditional Thai weaving techniques will be changed or applied to easily learn to develop for everyone. An appropriate guideline into significant and fundamental values of Yok Dok Textile for formal Thai contemporary education practices especially for technical and vocational education purposes. From this idea, it may be useful in the 21st century as an alternative to reducing the cost of producing new products or other creative products. From classroom education skill development, it'll be the foundation for more successful product designs. (The new version of design as a product of similar can be made done to the decade, such as 2020,2030 onwards).

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2) An expert on Thai weaving art Dr. Weeratham Taragoonngernthai. who kindly advise me about the Thai royal court in a fashion Rattanakosin period of Pha Yok Thong

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Supamas JIAMRUNGSAN

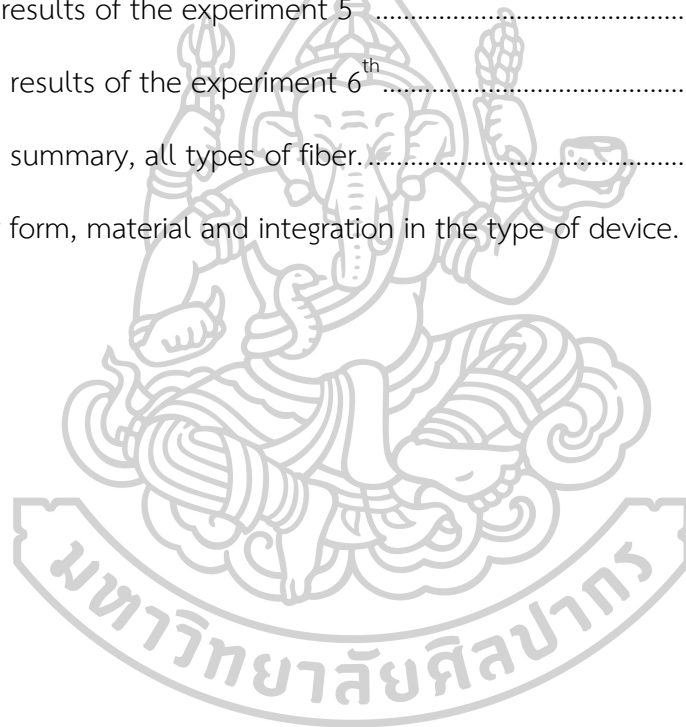
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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION AND BACKGROUND OF THE STUDY

The researcher was focused in textile and studied in the university and had the opportunity to work in the factory. As a jacquard textile designer of the company's PASAYA in 1990-2000 that is the business of home furnishing textile in the industry. It is a brocade technic similar to resembles the Yok Dok, but their make fabric on computer machine to faster and mass-production. Those are goods to markets but low value-add when compare with Yok Dok it is.

When back to the state of the traditional Yok Dok textile serious production was worrisome due to the existing economic pressure. There are some people who are interested in the profession but, Thailand there is still have not the education in the learning institutions with teachings to process. The old weavers Yok Dok inhabitants were persuaded to work in the factory for better earning. With be sympathized the urbanized behavior and the new technology, the traditional style of costumes was almost a learning process that is difficult to understand, though to missing from career the ordinary Thai peoples. However, as fabric just still, the high price because of, the special weaving by the Yok Dok technique. A prominent, a fined supplementary yarn takes up for a woven fabric so that silk thread floating on is prominent of a fabric surface. That is different from other fabrics.

Therefore, it is difficult to succeed in finding who those are the skills weaver for Yok Dok textiles. As for the handwoven fabric was a luxury item with high tasteful worn by wealthy ladies or those who knew how to weave their own cloth and only special of noble society occasions. This was complex craft mother taught to daughters by there, with the pattern weave of the own design motifs committed is what used to be the memory and handed down through generations of families the next.

The Thai brocades are woven with gold or silver cotton threads or silk yarns the difficulty of weaving technique it creates a pattern such as floral, animal, and

outline form motifs of geometric on the grid. In many places of the Northern, Northeastern and Southern regions of Thailand, the several groups of women normally weave the finely detailed gold-etched or silver-etched shapes in the fabrics are done in a gorgeous. A family that has heirloom pieces as mentioned the proof their family member of the long pass of an expert in textile weaving tradition, they can continue this cultural heritage. It is the well-known textile tradition with the historical record. Both Asia and Europe share a common weaving art tradition but they are called by different names depending on each language such as in Asian are Yok Dok: Thai, Sompot back: Cambodia, Songket /Sungkit: Indonesia/Malaysia/ Brunei, Nishijin: Japan, Jin: China and in European are Jacquard: France, Dobby: France, Brocade/Brocadelles: Italy and Damask /Damascus: Syria etc.,

This branch of classic weaving art it made using the supplementary weft and warp technique, which is rarely found in past Siamese court ordered brocades from China and India. Foreign weavers created designs, especially for the Siamese.

The first objective is to transfer knowledge by means of the initiative. Invented weaving techniques with a different process.

Second, improving the pattern of contemporary fabrics making the synthesis of textiles. From a complex process that requires a skilled weaver and led come to the perspective of the creator of new lessons for weaving to make understanding easier.

Third, the invention inspired by the textile art from the design of the textile to create a new piece of art from many materials. The research found that the weaving of the weaving structure is possible or not.

1.2 THE STATEMENT OF THE PROBLEM

The study is focus on yok dok fabric as the key Thai weaving art tradition that has potential for further development in Thai art education and contemporary weaving art. The study focuses on yok dok fabric as the key Thai weaving art tradition that has the potential for further development in Thai art education and contemporary weaving art. Although I had ever been designing in William Morris's wallpapers style in the early 1860s, at a period when most wallpapers were generally formal in design, in a Jacquard fabric repeating pattern loom bring a concept

combined collection with the way of wallpaper in the market coupled with the business of home furnishing textile. Then saw were Thai brocade has a big problem a long time.

According to the traditional tradition, Yok Dok fabric is not used in everyday life of the general public. It was used only for the royal court in the palace at the later and, changes in the regime and tradition enabling people to use these high-class fabrics. Anyhow, as far as clothes serves as an index to person's social status. But it will be used to indicate social in the status special occasions for it is a fabric which high priced than general woven fabrics.

Pha Yok Dok, being popular among people who accept the value and price in emphasizing special beauty. Therefore, the use of knowledge in this high-class art fabric to be able to be tangible in the form of creating new knowledge. In teaching and learning, there should be a change method. Learning in the course of the Thai fabric design course is still a study of the weaving structure and weaving techniques. From studying in the classroom has taught the design of woven fabric patterns with the original techniques of Thai weaving.

It was found that the patterns that were drawn on graph paper for weaving on frames. There is a problem from drawing patterns that cannot give the actual size of the pattern as needed. That is difficult to apply for further learning if the learner is non-heir of the original weaver. Since their learning must be the bloodline in a relative way, so we must improve this limitation. But at the same time study its weakness. If we still need both heir and non-heir, so

1. Let their learning to save making expert for competition and the conditions of the knowledge that is like the value of the family in the future.

2. If non-heir for theoretical study, current problems, and issues on weaving arts. that is heritage the national a treasure that should be cared for by the people nation.

The researcher has focused on conducting research in basic weaving, studying the designs. To begin the research patterns of Yok Dok to be in the Thai textile arts course from the fabric study in the education system. In relation to the level of

knowledge with a system that is not only knowledge that is only in the weaver family.

1.3 OBJECTIVES

The main objectives of this research are:

1. To investigate or examine the current of the Yok Dok Textile in the current development in the Thailand communities.
2. To analyze the significance and fundamental values of Yok Dok Textile for the contemporary education purposes.
3. To propose an appropriated guideline of Yok Dok textile for formal Thai education practices especially for technical and vocational education.

1.4 RESEARCH QUESTIONS

The researcher found that technology of the past was very useful and can be applied to the manage local wisdom and knowledge. It allows learners to have access to the source of knowledge and enhance practice weaving much easier. As mentioned above the study can be used as a study guide.

The objective of this study for a researcher with innovative ideas in both artistic and academic in the concept of bringing this fascinating weaving process to create an art form. That value is much more than usual clothing which uses all types of cotton yarn or yarn chemical dyes.

The body of knowledge in this finding can be applied to studying the process and design, the first method of fabric craft practice. As a researcher, it is expected that with this research is a search of the roots and identity of the art tradition, what suggesting should be done, what is the most accepted or most possible practice. How does Yok Dok weaving patterns, if created to be a weaving technique to create a new style that is easy to understand, should be done? Who does to use?

To be an appropriated guideline of Yok Dok textile for formal. Thai education practices especially for technical and vocational. Education the arts of beauty, simplicity is a value. The beauty of work and use according to local conditions under the influence of life in a tradition about definition and characteristics the background

of various folk art, the production of local. Thai weaving folk art, function and usage, the production original method, for the manufacturing method new that is easy to learn and create in scale. The process of transferring the knowledge of the material for the craftsman and the artistic development comparison of Yok Dok the folk art, Thai traditional. With the skill training in this newly-created processing.

By organizing a new course syllabus, to begin with, those who have never known about weaving methods before. just to do the level, the expert they were ready to continue to use. Is there a possibility? How?

1.5 SCOPE OF THE STUDY

This research focuses on the ancient weaving art of each technique. Study the history of both inheritance and contemporary style, patterns of weaving, jade flowers and things that enable people to use these high-class fabrics in the country to examine the changes in the 21st century. Explore pictures published from the source. Various and fabrics from entrepreneurs who still produce fabrics at the present, interviewing entrepreneurs about the situation, human resource needs in creating jobs to provide Heirs accumulated experience, increased the ability of people to become professional, both as a designer of Yok Dok fabrics for weavers who can combine skills to convey artists who bring creative processes in art that are beyond the wear. The most important thing is that this research is to be used to achieve create learning at the education level of higher education. In degree courses and looks at possible career paths with reference to textile design products in the future.

1.6 SIGNIFICANCE OF THE STUDY

The art of weaving is not just the classic tradition of the past; it can also be a source of inspiration for contemporary design in Thailand. Finally, a researcher has tried to make an investigation of the experimental results. String coated yarn is used in weaving, pattern design with a motif of the image, the approach of contemporary as described is different from the traditional design. To make learning easier and more understandable. If the two concepts can be combined with alternation and the

possibility of further development of the twenty-first century. The researcher is proud of the cultural heritage of the country, its status as a living tradition of art. What is created is new, simplifying, it is inspiring traditional art form of weaving art. The researcher found that technology of the past was very useful and can be applied to the management and develop local wisdom. It allows learners to have access to the source of knowledge and enhance practice weaving much easier and make prosperous future.

As mentioned above the study can be used as a study guide. The objective of this study for a researcher with innovative ideas in both artistic and contemporary art. The hypotheses of this study were to present new perspectives of contemporary textile design, to create new motifs fix it up with invented by the researcher was the significant factor which enabled weavers to create new and attractive woven textile structures.

1.7 DEFINITIONS OF TERMS

Keywords: Pha Yok Dok, Brocade, The Gold Brocade.

1.8 ABBREVIATIONS

Pha Yok Dok: is a technique of weaving to create patterns, using the method of storing pulling the yarn that is motif as well as the weaving of Khit. By lifting the heddle to separate the standing yarn Let the yarn pass through only the lines How many lines can be lifted at a time, depending on the pattern specified, but does not add a special line of thread or fling. The fine thread is popular for gold silver flexes to enhance the beauty and popularity in the northern region of Chiang Mai, Lamphun.

North Eastern Roi Et Surin

Southern Thailand Nakhon Si Thammarat Songkhla

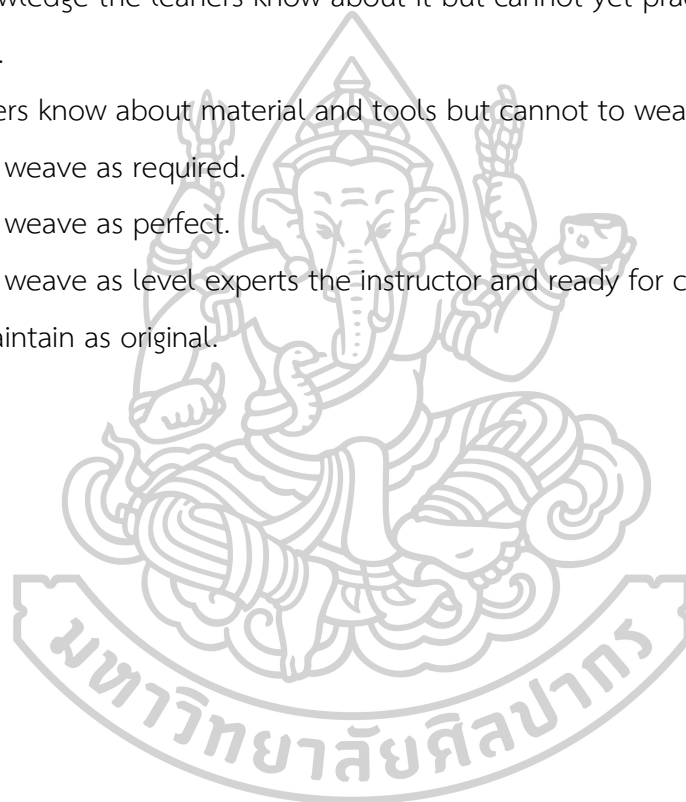
Brocade:is a fabric that is rich in luxury, handwoven in silk or cotton and complex patterns with gold thread (And sometimes silver), which is characterized by a fine arrangement of delicate silk yarn on the fabric background, a combination of

gentle light and shadow on the fabric, creating a sparkling effect that makes this out looking a taste hand-woven fabric priced expensive.

Education: is learning in the Thai system curriculum in the design course l Which can be designed into graph paper in preliminary, then enter the system to create a pattern on the computer using the credit of copying old textiles. Spend time studying the theory with the instructor. Hours of practice in real areas, self-study. From class, analysis can be enumerated as follows.

1. Basic knowledge the learners know about it but cannot yet practical to the art and design work.
2. The learners know about material and tools but cannot to weave.
3. They can weave as required.
4. They can weave as perfect.
5. They can weave as level experts the instructor and ready for competition

Propose: Maintain as original.



CHAPTER 2

LITERATURE SEARCH AND REVIEW

II. LITERATURE SEARCH AND REVIEW

Yok Dok textiles are about the original textile's part of the supplementary warp and weft and technique, called Yok Dok (Brocade silk) is one of the most prestigious silks in Thailand, which is rarely found in generally. Formerly the Siamese older times court has employed merchant middlemen to order textiles and deliver the finished fabrics to the court for Royal family and courtier. The orders were sent with instructions, desired designs, and fabric samples. In some cases, foreign weavers created designs, the notable characteristic of the silk is its use of floral patterns (motifs), especially for the Siamese. As an industry, it is one of the key handicrafts with the interweaving of gold threads into the fabric. to be practice weaving much easier and compatible. The interlacing new process and interloping old process of Thai brocade Royal and court textiles.

In this research, use the special textiles for learning new techniques, was not only for the clothing but also for aesthetic and the teaching as weaving other functional purposes. The making of weaving technical the Yok Dok fabric to a methodology for education design art of the fashionable textiles.

2.1 INTRODUCTION

The interest in the fabric that the researcher gives importance to the process or wisdom that is an intangible heritage. Which is now called the Intangible Cultural Heritage rather than tangible things. But could not separate the wisdom and knowledge hidden in the arts and crafts. As well as being unable to separate the ability from the body and the intelligence of the person. Therefore, the cultural, social, political, economic, and national relations and evidence of cultural movements of all ethnic groups that have settled or migrated to their place of origin. In addition, the expressions of wisdom that appear on the fabric also reflect the creative, customary and aesthetic values of the nation clearly.

The importance of what should be given attention and the most consideration for learning about Thai weaving. That is the creating processes and procedures a primary for studying. Yok Dok textiles to be practice weaving much easier and compatible. With the concept of a new culture of contemporary society and the original aesthetics of the beauty of Thai fabrics. In addition, researchers have searched for new ways to work. Which can lead to these production processes start up. The perceptions of interested parties following the work in the weaving of Thai textiles. It is a process that can connect social structures and show a broad knowledge system. The whole process of making textiles is epistemology or knowledge theory and this research examines. The sequence of learning and creating concepts in textile research systematically. Therefore, it is important to have the original of knowledge. That had been the past in order to know the current problems and then used to create the future.

2.2 TEXTILE IN THAILAND.

The Siamese court since the Ayutthaya period (1351 – 1767) and until the Rattanakosin period (1782 – present) has reserved the use of certain types of magnificent textiles uniquely for the King, and members of the royal household and the nobility for specific occasions and events. The use of these textiles varied according to hierarchical order and social status.

Royal and court textiles were either produced locally within the kingdom or imported. Locally produce textiles, especially the exquisite brocades produced in southern Thailand, were woven for use in such royal ceremonies as the tonsure or so-gun ceremony. This hair-cutting ceremony was held as a rite of passage for a young prince or princess to symbolically mark and the end of childhood. Some royal textiles were made by regional vassals under Siamese sovereignty. For instance, the pha poom or ikat textiles produced by the Cambodian or Khmer vassals of Siam was worn for the normal audience with the king.

Other royal textiles were imported from various foreign countries which can be categorized into two distinct types:

1. Textiles made in a foreign country for its own local market, such as the gold brocades from India known as *tard*, *atlad*, *khemkhab*, or *khimkhab* and *yarabab* or *zarbaft*. These brocaded fabrics were fashioned into court uniforms.

2. Certain imported textiles specially ordered and made to Siamese patterns such as *pha lai yang*. These textiles, including those painted and printed in India, were used for full ceremonial royal events such as when the king traveled around the city or when he granted audiences to foreign ambassadors.

Due to the rich variety of textiles available, the Siamese court was able to implement a strict, precise and complicated set of protocols for court dress. These rules reflect identity and concepts developed over centuries and unique to the Siamese. From the Ayutthaya period through the brief Thonburi period, and then on to the present day Rattanakosin or Bangkok period, most of the court etiquette relating to the monarch and royal household has been maintained in all respects as in former times. This includes the sumptuary law or dress code. As the range of textiles used in the Siamese court for royal attire and uniforms of high-ranking nobility and officials is too great to discuss in this given space, this research will only consider *pha yok* or brocades.

Thirabhand Chandrachoen (2007). The Secret of Southeast Asia Textiles Myth, Status and the Supernatural: Royal Brocades in the Siamese Court: The James HW Thomson Foundation Symposium Papers: Edited by Jane Puranananda: River Books Co., Ltd.p.180

2.2.1 DEVELOPMENT OF TEXTILE IN THAILAND

Thai fabrics have the meaning according to the dictionary of the Royal Institute of Thailand, B.E. 2542 (1999), describing that "fabrics made of fibers such as cotton, silk, wool, woven or compressed into pieces, often referred to as the nature of things that are made up or having specific features. Textile vocabulary books define "Fabric is a material that is caused by the use of fibers and/or yarns to make the fabric not sized by weaving, knitting, compression and others that are thick and sticky enough to be used. "Woven fabrics in the early period of Thailand Woven with back-strap loom, later developed into a hand loom, as is found in the peasants of various ethnic groups called folk weaving.

The weaving of local woven fabrics for use as clothing. There are patterns according to beliefs, customs, and cultures of ethnic groups. Later in the Ayutthaya period and came to Rattanakosin. The Siamese court ordered cloth from foreign countries such as India, Persia and China to be used in the Royal Brocades in the Siamese Court.

Prof. Wiboon Leesuwat. (2007) Encyclopedia of knitting weaving: ancient cities.

The subject of the Kingdom of Siam traditionally believed that the monarch wielded supreme power and was the embodiment of divine rule. Such beliefs resulted in a strict and complicated set of decrees relating to the royal status and dress code, or sumptuary law. This research will consider the way royal brocade textiles were used to reinforce such reviews in the past. Royal brocade design was decorated with various auspicious mythical animal forms and shapes. Most importantly for this research textiles, is their use and the brocade design concerning the way they were worn was significant instruments in creating the image of the Yok Dok as representing a part of the art on woven of the world. And later became widespread of the general people, but the expensive and takes a long time to produce. This reason causing there is the fabric to imitate and development. To substitute for handweaving can have many characteristics by the machinery in the current factory. That can produce a lot at a fast and cheap price.

Thirabhand Chandrachoen (2007). The Secret of Southeast Asia Textiles Myth, Status and the Supernatural: Royal Brocades in the Siamese Court: The James HW Thomson Foundation Symposium Papers: Edited by Jane Puranananda: River Books Co., Ltd.p.180

2.2.2 DIFFERENT TYPES OF TEXTILES

One of the most ancient crafts, hand weaving is a method of forming a pliable plane of threads by interlacing them rectangularly. Invented in a preceramic age, it has remained essentially unchanged to this day. Even the final mechanization of the craft through the introduction of power machinery has not changed the basic principle of weaving.

Other techniques had been devised to the same end:

single element techniques_ looping, netting, knitting, crocheting and

multiple elements, techniques_ knotting, coiling, twining, braiding.

In weaving, in the latter group, one system of threads, the warp, crosses another one, the weft, at right angles, and the manner of intersecting forms the different weaves.

Gradually the various phases of manipulating warp and weft were mechanized until the technique of weaving surpassed all others in efficiency. Whereas single - thread methods can be handled with few tools, weaving needs more complicated equipment since the warp has to be given tension. The device giving such tension is the loom. Weaving, then, is the process of passing the weft between taut, alternately raised warps, as in the basic weave, or between plain other combinations of selected warps, and pressing it into place.

Earliest weaving was done on the warp-weight loom. where warps were suspended from an upper bar and weighted at the bottom. Weaving here progressed downward, unlike other weaving. It was used in ancient Greece, and more recently, by Indians of North Pacifica American coast. Next came the two-bar loom, with warp stretched from the bar to bar, or, for extended length, wound onto the bars, used either vertically or horizontally, the warp was help taut by a framework or stakes in the ground. Early Egyptian records show weaving on such a loom which, in a vertical position, is also the tapestry loom of today.

Anni Albers (2017). On Weaving, New Expanded Edition, The Josef and Anni Alblers Foundation Published by Princeton University Press, Princeton and Oxford.

2.2.3 TEXTILES AND SOCIETIES

Textile design influences the aesthetic and material world, whether through clothing, interior furnishings or other textile products. It can generate new lifestyles and types of design, or it can follow traditions and social norms. Its aesthetic and functional qualities can, therefore, be unique and idiosyncratic or reflect established styles.

All of which can depend on what the textile will be used for. While some of the new designers who will serve these needs come from regions or families that traditionally specialize in textile design, most of them learn about it at a university or college of art and design.

Textile design departments throughout the world offer individual perspectives on the subject while providing basic knowledge and skills. A project brief develops in consultation with a university or college's partner in the textile industry and could culminate in students presenting finished designs to the partner. Universities offering textile design as an undergraduate course develop industry links and contacts to help prepare students for the industry.

The partnership may be long-standing and run annually or it might be a one-off partnership for a single project. In some cases, the live project might be a group involving students from other courses, such as furniture or fashion design, too. Usually, however, students work individually with the benefit of seminar discussions to share ideas as the project develops. Successful designs may be taken forward and manufactured commercially and a student may be paid.

An alternative, he or she may be awarded a work placement with the partner. Live projects can be mutually beneficial: students gain insight into how the textile industry works and the partner gains new designs. The range and gravitas of projects vary depending on their profile and the partner.

Simon Clarke (2011). Textile Design, Laurence King Publishing Ltd. 361-373 City Road London.

2.3 YOK DOK TEXTILE

Yok Dok that are woven to create patterns directly by raising the yarn an unordered yarn, raise the supplementary yarn some and resting or pressing down, that resemble weave the Lampaan mats or Kajud mats to create patterns. The pattern is design best on the concept that, it stands out in that is convex yarn on a surface the fabric.

The Prince Narisara Nuwattiwong, handwritten note to Phya Anuman Rajadhon, in books various knowledge non-dated November 1936. "The word YOK comes from the yarn weaving process that the raised yarns called.

The sinking thread is called the leash yarns and then the shuttle use fling to the middle. Lifting some of the raised yarn will form a pattern, so it is called Pha Yok because it has to lift the leash yarns to create a detail of motifs in the pattern.

Prof. Wiboon Leesuwon. (2007) Encyclopedia of knitting weaving: ancient cities.

2.3.1 DESCRIPTION OF YOK DOK TEXTILE

Thai Design for Yok Dok Textile was a process of weaving to create patterns by lifting some of the warps yarn, separating the thread, raised. The sometimes raising the supplementary yarn some and resting or pressing down to make a motif will increase the thread.

Rushing two lines or more into the fabric. The pattern that is woven is related to the way of life, environment, and religious beliefs, which include the castle pattern, the natural pattern, the animal pattern, the pattern of the pattern from the utensils and geometric patterns. (see Fig.)



Figure 1: Pha Yok Dok in Surin province had been the making process is more or less similar to that of Khid or Jok, but with unique local patterns of the golden fabric.

Source: located at home Dr. Weeratham Taragoongerthai, Surin province.

2.3.2 EVOLUTION / DEVELOPMENT OF YOK DOK TEXTILE

It was the year in 1960, Their Majesties embarked on a series of state visits to the United States and Europe. The preparing for this extended tour, Her Majesty was faced with a dilemma. Beginning in the mid-nineteenth century, the dress of

members of the Thai court had gradually Westernized to the point where there was no "traditional" Thai dress suitable for Her Majesty.

For this important first occasion, as well as subsequent visits abroad, Her Majesty commissioned the French couturier Pierre Balmain to make Her Western clothes. She also worked with a team of researchers and Thai designers to create a series of practical and modern Thai national styles based on historical models. The tour, intended to formally introduce Thailand's young monarchs, was a resounding success, and Her Majesty was internationally acclaimed for Her beauty and fashionable wardrobe.

Her elegant "traditional" Thai attire was subsequently refined and expanded over the next two decades by Balmain; his assistant, Eric Mortensen; and the Parisian couture embroidery studio Lesage. As a result of the successful collaboration, Her Majesty Queen Sirikit was repeatedly elected to the International Best Dressed List and elevated to its Hall of Fame in 1966. Charitable work on behalf of the people of Thailand has been Her Majesty's major focus during Her years as Queen.

She has received many international awards for Her ongoing humanitarian, environmental and conservation efforts, as well as honorary degrees from Universities at home and abroad. One of her most far-reaching achievement has been the creation of the SUPPORT Foundation (originally the Foundation for the Promotion of Supplementary Occupations and Related Techniques), established in 1976. The royal visits throughout the country SUPPORT was designed to address the need of rural women for a regular source of income and to preserve the country's rich and diverse textile heritage.

A few years later, Her Majesty decided to promote the fabrics produced by SUPPORT 's growing ranks of weavers by incorporating traditional village textiles into Her own wardrobe. Wearing these previously humble fabrics was the best way for Her Majesty to express Her faith in the creativity and value of Thailand's craft heritage and Her commitment to helping the Thai people.

Weaver is no more humble craftsmen working in a faraway village but the person of great pride making the cultural contribution. Clothing is one of the basic

requirements of more societies. Cloth can be made from either natural or synthetic fibers; woven textiles can be a refined art object with beautiful color and designs.

When speaking the whole process, it is not only weaving of the cloth Yok Dok but also producing suitable material such as value added is much more than usual clothing which uses all types of cotton and chemical dyes, by offering for the telephone cables line, plastic nets, plastic mesh etc.

In Thailand, such work of art has been a treasured national heritage, passed down from one generation to the next. If not forgotten, weaving will endure as both cultural heritage and a product allowing weavers to earn additional income.

Realizing the importance of its preservation, Her Majesty the Queen has been encouraging master weavers to teach their skills and techniques to the younger generation.

Her Majesty the Queen Sirikit make an international to Thai textile then she promotes the Thai textiles produced by these new artisans worldwide. She also helps to market them, so that their makers will have enough additional income to live comfortably.

In Thailand, textiles are woven from both cotton and silk. In order to reach the international goal sufficient and effective production of fiber are required. Villagers in some areas grow their own cotton, but most buy it already made into thread. As for silk, villagers still raise silkworms and make silk threads in the traditional manner. Her Majesty has advised them to use local varieties which, once woven, yield supple material that is easy to dye and comfortable to wear. One of the additional benefits of preserving local varieties of silkworms is their importance in scientific and medical research.

Apart from promoting the making of cotton and silk cloth, there are other initiatives of Her Majesty the Queen's in Thailand's northern provinces that are not well-known: Her work in Mae Hong Son, for example, where She advised villagers to raise sheep for the fleece to use to weave pure wool or wool blend (with silk or cotton) textiles. These products fetch good prices. Whenever the Queen purchases textiles from villagers that are to be made into clothing, Her Majesty never forgets to

preserve the color schemes and the pattern designs by keeping samples of the textiles.

There is another important issue, some weave pattern had disappeared. For more than a century the new generation had forgotten. The precious design becoming the lost art of the past.

Her Majesty has revived styles and techniques that had vanished by having old specimens from collections in museums and palaces, and from Her own personal collection, analyzed and recreated to make them available once again. New color schemes are sometimes introduced. To encourage higher standards of craftsmanship, Her Majesty inaugurated competition, which helped improve the quality of the textiles' color, patterns and techniques.

Sex role and weaving profession is an interesting historical topic. In the past, weaving was considered exclusively women's work, but as a result of Her Majesty's support, male weavers are increasing in number. The older member of Her Majesty textile preservation project has passed down their art to their descendants. These young people, weaving from the heart, are artistically as well as commercially creative. Some of their work reaches export quality.

Textile museum is another great step to make Thai textile internationally well known. Textiles were formerly stored in a simple way. But now, the Queen Sirikit Museum of Textiles founded in May 9th, 2012 opened its doors to the public at the Ratsadakorn - bhithathana Building in the Grand Palace. The museum is equipped with storage and galleries built according to the highest international standards. The museum served as the source of knowledge for craftsmen and those who are interested in the subject.

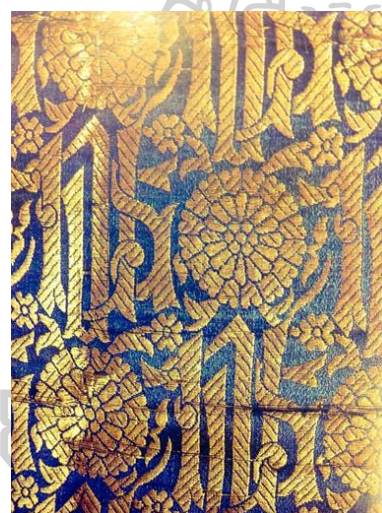
Students in museology can come and study as well, since, in addition to excellent galleries and state-of-the-art storage, the QSMT (Queen Sirikit Museum of Textiles) is equipped with all the necessary facilities of a well-established museum: registration; a fully equipped conservation laboratory; a library and archive for research; and a shop where visitors can buy art and crafts for their own use, the collect, or to use as models for developing local crafts.

Highness Princess Maha Chakri Sirindhorn (16 March 2012), In Royal Fashion” THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND, Bangkok, Queen Sirikit Museum of textiles,2013. P.8 ,9,11.

2.3.3 CHARACTERISTICS / MOTIF OF YOK DOK TEXTILES

Pha yok, or Brocade, is used to describe textiles on which the design has been made with supplementary threads, raised over a plain silk ground. When the technical aspect brocade design is woven with gold threads, it is known as pha yok tong or gold brocade.

From figure number 2 : types of tools and their product are show. There special characteristics are



Brocade with King Chulalongkorn's initial

Silk fabric brocaded with King Chulalongkorn's initial, chrysanthemum and vine patterns with metallic thread. This fabric was probably used to make into a cloth for a royal charity.

Figure 2 : Pha yok tong or gold brocade Brocade with King Chulalongkorn's initial.Silk fabric brocade ,chrysanthemum and vine patterns with metallic thread. This fabric was probably used to make into a cloth for a Royal charity.

Source: National Museum, Bangkok. the survey area.

Brocades woven by skilled weavers from the upper southern provinces can be distinguished and differentiated from other imported sources by the following characteristics: designs

PLAIN WEAVE: The Local loom with only two heddles created a plain ground textile. By increasing the number of heddles, the range of designs become more

complicated. China and India produced a greater variety of brocades than Siam through the use of loom with three or more heddles...

Weaving with more than two heddles created a twill or warp-faced cloth, where the warp threads are more visible on the front side of the textile. This kind of fabric was called 'tuan' or 'satin' and could be used to create many designs. Supplementary weft patterning appeared only on the right side of the fabric.

LOCAL SILK: Since the weather in Southern Thailand was not suitable for growing mulberry trees and for raising silkworms, most raw silk thread was produced in the Isaan (north-eastern) region of the Kingdom. Imported silk from China or India was finer but was used in smaller quantities because of its high cost. It is evident that textiles woven with imported silk threads were thinner and lighter due to the fineness of the silk.

Thai Design: Local weavers produced textiles with designs similar to the traditional or royal designs because they were a part of an understanding the local culture. However, textile woven by foreign weaver deviated from Thai designs. Different types of loom were used resulting in different kinds of fabric.

COLOUR: Locally-produced brocades were in more somber colors when compared with the colorful Chinese and Indian brocades. Chinese brocades used colors not popular in the south such as bright yellow, pink, orange, purple and bright green. Indian brocades also featured colors seldom used in the south, such as purple and bright green.

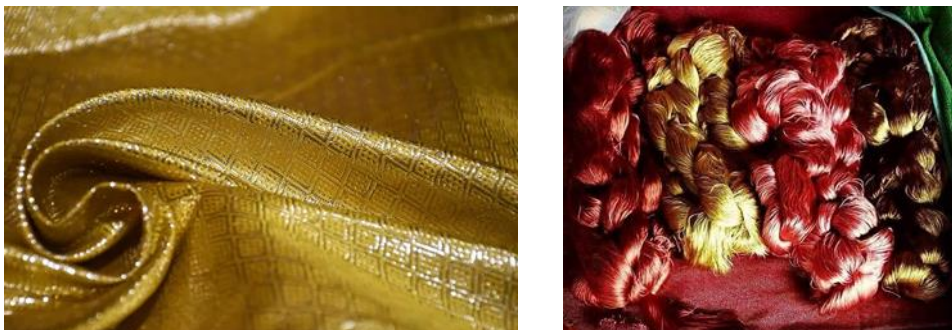


Figure 3: Pha yok tong or gold brocade and Silk threads (yarns dry)

Source: at home Dr. Weeratham Taragoongerthai.

After conducting a study of old textiles, I found that court brocades from the southern provinces could be categorized into the following groups:

a. Brocades with free designs

In this case, weavers freely created the designs with supplementary wefts, without any restriction. For this kind of fabric, the supplementary wefts technique was generally used in certain areas or the whole length of cloth. Brocades with both supplementary weft and warp are rarely found.

b. Brocades with small square designs

They are called pha yok jed see or seven-colored brocade. They are made using a discontinuous supplementary wefts technique. Weavers could choose to add supplementary wefts threads in many colors.

c. Brocades with designs over the plait ground

This kind of fabric is made using the supplementary wefts technique over the plait ground. With this technique, the overall pattern of the design would look like slanting plait. This type of fabric is given a special name of rajawat brocade.

Thirabhand Chandrachoen (2007). The Secret of Southeast Asia Textiles Myth, Status and the Supernatural: Royal Brocades in the Siamese Court: The James HW Thomson Foundation Symposium Papers: Edited by Jane Puranananda: River Books Co., Ltd. p.185,186.

From such research, we can assume that the reason the Siamese Court chose to use brocades for various royal occasions was due to its particular qualities. Such rich and elegant textiles reinforced the elevation of the king to divine status. In addition, the use of such sumptuous fabrics for interior decoration in the palace helped create the image. Special supplementary weft techniques are used to rise the designs above the plain silk ground.

These supplementary wefts can be woven with either naturally dyed silk or gold or silver threads, thus creating an exquisitely beautiful fabric that emphasizes a wearer's high social status. Such rich and elegant textiles reinforced the elevation of king to divine status.

Almost unlimited ranges of designs were created. Geometric patterns, flowers and plant, and the kranok, a stylized design derived from a flame or lotus are

just some of the many examples. Certain floral motif was used by commoners. Others were reserved for the king, the royal household and nobility.

These featured mythological animals from the himavatt (holy forest), such as naga (serpent or big snake),hera (half-serpent, half-dragon),hamsa(swan), garuda (half-man, half-bird)mount of Vishnu, kinnaree (half-woman, half-bird),kinnara (half-man, half-bird), singha(lion),thep (celestial deities or beings) in various posturessuuch as theppanom (paying respect), thep-parum(dancing), and thep-tue-chor(holding flowers)

Thirabhand Chandrachoen (2007). The Secret of Southeast Asia Textiles Myth, Status and the Supernatural: Royal Brocades in the Siamese Court: The James HW Thomson Foundation Symposium Papers: Edited by Jane Puranananda: River Books Co., Ltd. p.183,184.

2.4 YOK DOK TEXTILE IN THE CONTEMPORARY PRACTICES.

This time-consuming technique was introduced to Nakhon Si Thammarat province in southern Thailand in the early19th century by weavers from Malaysia. The region became justly famous for its gold brocades, which were originally made for the exclusive use of the Thai court. By the end of the 19th century, however, court demand had decreased substantially, leading to a gradual decline in production and a corresponding loss of weaving expertise. In the three decades 1980s 1990s 2000s significant changes.

-Design

FROM: Hip Wrapper for Nobleman, Royalty

TO: The revival hip wrapper for of khon (mask play, Royal pantomime) Dress.

-Yarn and fiber

FROM: Silk and gold thread Cotton thread

TO: The polyester filament, nylon, acrylic, rayon.

-Machin and technology

FROM: handloom

TO: Jacquard Loom, Dobby Loom.

By 1980s, only one brocade-weaving family remained. Needing to increase production to serve the new khon productions, Her Majesty encouraged Professor Weerathamma Tragoonngoenthai, a textile expert from Surin in northeastern Thailand, to establish a gold brocade-weaving workshop in his home province. Further, aware of Nakhon Si Thammarat's proud history of pha yok production, Her Majesty decided to revive it there as well. In 2007, therefore Professor Weerathamma re-established brocade-weaving in southern Thailand, teaching the demanding technique to the group of experienced SUPPORT Foundation weavers from the region.

Dressing God Demons Costume for Khon, Museum Textiles Queen Sirikit ,2016. P.,55.



Figure 4 The History Gallery of Thai Traditional clothes patterns.

Source: National Museum, Bangkok. the survey area.

2.4.1 THE CURRENT STATUS OF YOK DOK TEXTILE IN THE CURRENT PRACTICES IN THAILAND.

The Queen instructor team had trained the local craftsmen in the following area by Dr. Weeratham Taragoonngerthai. who kindly advise me about the Thai royal court in a fashion Rattanakosin period of Pha Yok Thong. The revival of khon (The cloth of Nakhon Si Thammarat, which is the source of weaving yok dok of the royal court since ancient times) has created a steady market for handwoven textiles, especially the hip wrapper of silk and gold-metal brocade called Pha yok in Thai. Also indicated the rank of the owner. The multi-level design was used for the

member of the royal family and the high-ranking nobles, while the single-level one was used for the upper class or the wealthy persons.

This was used as a sample for the most advanced today, SUPPORT members weavers to copy by Ban Neun Thammavong and Ban Trok Khae in Nakhon Si Thammarat, who began by weaving gorgeous silk and gold brocades. Their first examples came off the loom in 2011. Thus, royal court brocade is once again bringing income to residents of Nakhon Si Thammarat province.

Dressing God Demons Costume for Khon, Museum Textiles Queen Sirikit ,2016. P.,55.

2.4.2 THE ACCEPTANCE OR AWARENESS AMONG YOUNG GENERATION

●Contemporary Fashion and Taste of International Community

Began to change the use of Thai fabrics in the era of King Rama 9. By French couturier Pierre Balmain (1914- 1982), who had the previous experience designing for the royalty, was engaged to design a fashionable western wardrobe for Her Majesty, but in addition, she wanted some clothing that was distinctively Thai (Pierre Balmain, *My Years and Seasons*, London: Cassell & co., Ltd, 1964, pp.137-143.) He is a fashion designer who manufactures and sells clothes that have been tailored to a client's specific requirements and measurements.



Figure 5: Pierre Balmain (1914- 1982), who had the experience designing for the royalty a fashionable western.

Source: FIT FOR A QUEEN: HER MAJESTY QUEEN SIRIKIT'S CREATIONS BY BALMAIN., (2016). Bangkok: Sirivatana Interprint public company limited, P.12,139.

However, the Westernization of the Thai court dress during the previous century had left nothing suitable from which she could choose; it was clear that something new would have to be developed. Her Majesty assembled a team of consultants and advisors to assist, and turned for inspiration to the surviving photographs, textiles, and jewelry from the court of King Rama V and King Rama VI respectively. Her Majesty was specifically interested in photographs of former queens, feeling that they would serve as the most appropriate of prototypes. " She had no desire to copy directly as "the strange look of our half- Western, half- Thai national dress", but did find considerable design inspiration in traditional Thai hip wrappers (phaa nung), should cloths (sabia), jewelry and the manner of wearing them as seen in the illustration by Alisa Saisavetvaree. No.5,7,8.

Arts of Asia Queen Sirikit Museum of Textiles, A Royal Textile Museum for Thailand, May – June 2014.p.81-82.

●Phaa Rajani Yom (Royal Favorites)

Her Majesty's creations have come to symbolize Thailand and its culture for Thais and foreigners alike. Thai national dress was named "Best National Costume" in several Miss Universe pageants. By the late 1960s the more informal style had been adopted as uniforms by many Thai businesses, particularly airlines, hotels and restaurants which continue to use them today. Thai Ruean Ton is also a popular choice for religious ceremonies and engagement parties, while several of the more formal styles, such as Thai Boromphiman, Thai Chakri, is popular among well-to-do Thai women as engagement, wedding, and special occasion attire.

But, perhaps the most telling sign of the success The Eight Styles is that today, most visitors to Thailand and many younger Thais assume they represent a venerable and continuous tradition unaware that they were created by Her Majesty some fifty years ago.

Arts of Asia Queen Sirikit Museum of Textiles, A Royal Textile Museum for Thailand, May – June 2014.p. 88.



Figure 6: The Eight Styles, which are known in Thai as Thai Rajani Yom (Royal Favour).

Source: Illustration by Alisa Saisavetvaree, *Arts of Asia Queen Sirikit Museum of Textiles, A Royal Textile Museum for Thailand, May – June 2014*.p.84- 86.

The Eight Styles, which are known in Thai as Thai Rajani Yom (Royal Favour) include ensemble suitable for the informal, semi-formal and formal occasions.

(1) Thai Ruean Ton is the most informal of the styles. It is made from silk or cotton and consists of a jacket with three-quarter-length sleeves and an ankle -length plain or patterned wrap skirt. Her Majesty has worn this style on numerous occasions, including for Kathin Ton, a ceremony for the distribution of royal gifts to Buddhist monks. Denote this most informal of The Eight Styles. Thai Ruean Ton was named after a group of teal houses at the Dusit Palace in Bangkok. Today, it is popular attire

for Thai women attending engagement parties or religious ceremonies, and as uniforms for those in the hospitality industry.

(2) **Thai Chitralada** named after Their Majesties' residence in Bangkok, is a long-sleeved, high collared silk jacket and long plain silk or silk brocades wrap skirt worn as formal daytime attire.

Named after Chitralada Villa, Their Majesties' residence in Bangkok, is formal daytime attire. Her Majesty wore this style when welcoming official guests.

(3) **Thai Amarin** is similar in appearance to Thai Chitralada, but is considered more formal; a two-piece evening ensemble consisting of a plain silk jacket paired with a long-wrapped skirt of silk and metal thread brocade. Designed to flatter all figure types, it was named after the Amarin Winitchai ensembles are often worn for welcoming parties, balls or a royal birthday procession.

(4) **Thai Boromphiman** is a one-piece dress with a long - sleeved plain bodice and stands collar. Its silk and metal - thread brocade skirt has sewn- in front pleat that reflects the pleated hip wrappers worn by women of the court in the 19th century. The style is named after Borom Phiman Mansion, on the grounds of the Grand Palace, and is worn for formal events and official ceremonies; it can also be worn by royal brides.

(5) **Thai Chakri** is a very formal gold or silver metal - thread brocade evening dress, often embellished with embroidery that features a skirt with a front pleat and an attached traditional Thai shoulder cloth. Her Majesty was often photographed wearing this style during her travels abroad in the 1960s, features a skirt with a front pleat and an attached traditional Thai shoulder cloth. The named after Chakri Maha Prasat Hall at the Grand Palace, this style It is often embellished with embroidery. but today brides-to-be may also wear it for daytime engagement or wedding ceremonies. Thai Chakri is worn primarily for royal ceremonies in Thailand.

(6) **Thai Dusit** is a formal, one-piece gold brocade evening dress that combines a slender, draped skirt with an elaborately embroidered, sleeveless, scoop-neck bodice. Taking its name from the Dusit Maha Prasat Hall in the Grand Palace.

(7) **Thai Siwalai** is the formal made of brocade that may also be embroidered, is worn for royal ceremonies or the formal day or evening functions. The bodice joined to a matching skirt with a front pleat, is completed with an attached shoulder cloth. A formal dress bearing the name of Siwilai Garden in the Grand Palace, it is worn for royal ceremonies or formal day or evening functions. Some Thai Siwilai dresses are also decorated with embroidery.

(8) **Thai Chakraphat** is also formal evening attire. It features a metal-thread brocade skirt with a front pleat and a strapless bodice concealed beneath a separate pleated shoulder cloth, with a second, embroidered shoulder cloth on top. This style of dress may be worn for formal banquets and official dinners. Named for Chakraphat Phiman Hall in the Grand Palace, This Fig. represents the fashion design which is a synthesis between East and West.

Source: Arts of Asia Queen Sirikit Museum of Textiles, A Royal Textile Museum for Thailand, May – June 2014, p.84- 86.

- **The Local Ethnic and Regional and Thailand** (overall nationwide and Thai fashion crucial each group - each taste.

The process of developing this modern Thai national dress was largely one of trial and error: members of the advisory team, which included designers and dressmakers, would sketch different dress options for Her Majesty's consideration; those she chose were made up for her to try out. When 1959 during a state visit to Vietnam, wearing one of the experimental versions of Thai national dress. This version was not adopted. (Courtesy of the National Archives of Thailand.)

Her Majesty then provided feedback about what did and did not like about each ensemble, and requested changes. Within a year, the process had yielded

five distinct styles. They were based on traditional Thai wrapped and draped garments, but incorporated the fashionably slender silhouette of 1960 and were constructed as the Western cut and tailored garments to which Thais had become accustomed. Her Majesty also commissioned new gold brocades, based on historical examples the advisory team had reviewed. These were woven in Lamphun, in northern Thailand, which at the time was one of the last remaining silk and metal - thread brocade weaving centers in the country. Once the styles had been chosen and the textiles created, Urai Lueumrung (1920- 1987), Her Majesty's longtime dressmaker, executed them for the 1960 tour.

Arts of Asia Queen Sirikit Museum of Textiles, A Royal Textile Museum for Thailand, May – June 2014.p.82, 83.

●**The overall outcome.**

The result of all the research and experimentation was a new national dress designed to honour the past while conveying a practical, modern Thai identity. It was resoundingly successful on the royal tour, garnering her Majesty frequent accolades for her style and elegance as well as her first nomination to the International Best Dressed List.

Three more ensembles were created soon after the tour ended, bringing the total number to eight, and Her Majesty's aunt, Mom Lung Mani Ratana Bunnag, name each style after an important royal place in Bangkok. In the early 1960s, Pierre Balmain, who had previously made only Western clothes for the Queen, also began to create dresses for Her Majesty in this re-interpreted his toric style.

Using the traditional-style Thai brocades commissioned and supplied by Her Majesty, Balmain brought to Thai national dress his deep expertise in Western dressmaking, together with the embroiderer Francois Lesage, he developed a hybrid style of surface embellishment, one that combined European materials and techniques with the motifs and rich, dimensional embroidery of the 19th century prototypes which, in turn, influenced the Thai designers also working for Her Majesty. Additionally, many of Balmain and Lesage's versions of Thai national dress used traditional Thai patterns arranged in a non-traditional way.

Arts of Asia Queen Sirikit Museum of Textiles, A Royal Textile Museum for Thailand, May – June 2014, p. 83,86.

The fashion is known in Thai as Phaa Rajani Yom (Royal Favorites), the Her Majesty dressed were named by all that the decision to promote the fabrics produced by SUPPORT's growing ranks of weavers by incorporating the traditional village textiles. Her own wardrobe has more collection as along a time.

●The taste and value of Thai younger generation

The young generations can be following which wearing this previous humble fabric was back to a new fashion way for the young generation. The role of yok dok in khon costume wrapper

By the revival of khon (mask play) under Her Majesty's patronage has led to a revitalization not only of the dance and music but has also given a tremendous boost to the on-stage and off-stage arts essential to a Khon production.

Dressing Gods & Demons Costume for Khon This royal dance – drama each has been organized by the Queen Sirikit Museum of textiles in celebration of Her Majesty Queen Sirikit's 84 birthday on August 12, 2016. In mid- 2017 to be open to the public through to acknowledge Her Majesty's dedication to the revival of Khon and to encourage appreciation of the beauty of the Thai craftsmanship and the pageantry of this.

The fashion designers today If looking at the pattern of the past May be seen as destruction or disrespect. The actor is a violation of the violates of the good-looking map of the past. If looking in the middle, what we call "Abuse "is to find new alternatives that the user has to find appropriate rules of their own whether appropriate or not.

In the event of traditional Thai clothing promotion activities. To be get up acceptance or awareness among the young generation. Resulting to be in a fashion Thai style popular trend just in time for the 21st century.



Figure 7: This Dressing for the royal dance – drama each has been organized by the Queen Sirikit Museum of textiles. Dressing Gods & Demons Costume for Khon.

Source: Dressing God Demons Costume for Khon, Museum Textiles Queen Sirikit ,2016. P.36, 37.

2.4.3 THE SIGNIFICANCE OF YOK DOK TEXTILE IN THE THAILAND COMMUNITIES.

Yok Dok Textile in the Thailand Communities of Khon costumes are typical of theatrical dress in general – they appear convincingly rich and royal but are always made of lesser materials and with subtle, style and construction changes that further differentiate them from genuine court dress. Additionally, in Thailand commoner are prohibited from imitation royal dress. The basic element of royal ritual attire includes jacket and draped trousers (Chong kraben), sashes crossed over the chest, and a wealth of jeweled ornament - brooches, bracelets, belt buckles, anklets. All Yok Dok these elements also appear in khon costume. The headdresses are commonly worn in royal rituals are omitted from the costume of masker khon dancers, but the version of them can be seen on unmasked royal characters such as Phra Ram (Rama) and Sida (Sita). Because Their small size suggests that the performers were children and teenagers.

Dressing God Demons Costume for Khon, Museum Textiles Queen Sirikit ,2016. P.,33.

2.5 YOK DOK TEXTILE AND EDUCATION PRACTICES.

How principle and practice in 1990 2000 2010 and will be 2020. The present Yok Dok Textile and Education Practices found that in much of the visual impact of khon costumes, which embellishes virtually every item dancers wear. Since 2001, master craftsman and experts have been commissioned by Her Majesty the Queen to design weaving in traditional style for new khon costumes and to provide technical training for phaa yok.

How Chitralada Centre achievement this revival effort, which began with working. At the SUPPORT Center at Chitralada Palace in Bangkok has now spread to a number of other workshops and employs a much larger population of workers. One of Phaa Yok Dok in Surin province had been the making process is more or less similar to that of Khid or Jok, but with unique local patterns of the golden fabric is located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province.

Dressing God Demons Costume for Khon, Museum Textiles Queen Sirikit ,2016.

2.5.1 FORMAL EDUCATION IN THAILAND

The survey of research sources from educational institutions found that. Teaching and learning of educational institutions in Thailand. Study and practice in researching the history of textile products in each region. The Apparel Design, Textile Product Design, training about basic weave, structure building weave the interlace of the warp and thread up. This feature is woven Jacquard/Dobby to create a template onto the fabric pattern repeat. Types of textiles, materials, equipment, techniques and production methods of textile products create textiles for product design. Various types of costume design fabric properties, the design of patterns and colors of fabric. In relation to the size of the human body as well as the features of various devices for use in the production of the features and functions of the designer on the development of creativity. In line with marketing trends and economic society. But there is no place where there are relevant teaching and learning, emphasizing the importance of Yok Dok as Thai cultural roots. But another important conflict of Her Majesty Queen Sirikit during her trip to Nakhon Si Thammarat was found:

- 1) Local wisdom of Nakhon Si Thammarat
- 2) Regional expertise and local innovation
- 3) The result is the art of weaving.

Nakhon Si Thammarat fabric by the Local Wisdom Learning Center Project Cultural center Nakhon Si Thammarat Rajabhat University Has prepared the book "Pha Yok Nakhon" before this by collecting fabric information to raise Nakhon Si Thammarat city and have educational institutions "Kanchanaphisek Goldsmith Royal College", which offers courses in silk and native fabrics at the diploma level Let's cooperate as a network to learn about the city fabric. With weaving experts as an assistant. And is the only one that has ever taught but it can only be short term.

2.5.2 THE FUNDAMENTAL OF YOK DOK IN THAILAND EDUCATION SYSTEM

The fundamental of Yok Dok in Thailand Education is related to the Siamese court appreciated the value, beauty, and uniqueness of brocades. These woven textiles responded to the court's need to uphold the status of the monarch as the avatar of a god who descended to the earth to rule and protect his subject. The Siamese court thus chose brocades as an important instrument, together with other types of fabrics, to create this image.

To obtain these important textiles, the Siamese court ordered brocades from the southern provinces of Thailand and also imported them from foreign countries such as China and India. As they were made-to-order for royal use, court brocades had unique characteristics which differentiated them from textiles worn by commoners.

The resources of the Siamese court allowed the extensive use of brocades woven with gold thread. In contrast, commoners, unable to afford gold thread, used plain silk brocade, with occasionally some gold designs woven into the end panels. The Siamese court reserved certain motifs for the use of the king, the royal household and the nobility. These designs included mythical creatures from Himmavatta or holy forests such as Naga, Hera, Hamsa, Garuda, Kinnaree, Singha, and Deities in various postures. Brocades for commoners were generally decorated with geomagnetic designs, flowers, plants, and Karanok.

The study of the brocades used in the Siamese court provides important insight into the Thai monarchy and Siam's rich cultural heritage. These unique textiles played a vital role in establishing the status of their royal weavers and creating the image of a majestic good-like king and court.

Thirabhand Chandrachoen (2007). The Secret of Southeast Asia Textiles Myth, Status and the Supernatural: Royal Brocades in the Siamese Court: The James HW Thomson Foundation Symposium Papers: Edited by Jane Puranananda: River Books Co., Ltd.p.192

2.5.3 THE SIGNIFICANT VALUES OF YOK DOK TEXTILE IN EDUCATION

The significant values of Yok Dok Textile in Education Heritage, Values and Economy & Commercial. Is the use of gold thread also contributed to the concepts of the divine status of the king. As it was often imported, from abroad, it was considered particularly valuable and as such beyond the reach of commoners.

In addition, certain types of brocade could not be produced within the kingdom and had to be imported, thereby making them also out of the reach of commoners due to their cost. Thus, the use of imported brocades served as one of the indicators of the user's social status.

There is evidence that during the Ayutthaya period, imported brocades were ordered from China, India, and Persia. Later in the Bangkok period, the major sources of imported brocades were China and India. In contrast, no clear evidence exists to show where the of domestic brocade production were during the Ayutthaya period. By the early Rattanakosin period (1782 -1851), however it is certain that the major Centre of brocade production was in the upper part of Siam's southern provincial region, with Nakhon Si Thammarat as the heart. The Bangkok court favored the silks of southern weavers who were highly respected for their ability to weave fine brocades.

Several government documents dating to the early Bangkok Period confirm the importance of southern Siam as a major source of brocades. These include order for brocades for court use and delivery notes for brocades sent to the court from Chumporn, Chaiya (now in Surat Thani), Nakhon Si Thammarat and even from as far

south as Songkhla province. In one letter dated Tuesday, May 22, 1860, Phraya Sri Saowaraj Pakdi informed the Governors of Songkhla, Chaiya and Chumporn that His Majesty the King had graciously expressed his wish to obtain brocade fabrics with the Rajawat design.

The court was responsible for the cost of procuring the raw material for weaving. In some cases, the government provided the raw materials. Other times, the provinces procured their own materials and the costs were reimbursed by the court. There was a various document which discusses this issue.

Thirabhand Chandrachoen (2007). The Secret of Southeast Asia Textiles Myth, Status and the Supernatural: Royal Brocades in the Siamese Court: The James HW Thomson Foundation Symposium Papers: Edited by Jane Puranananda: River Books Co., Ltd.p.184.

The Thai brocades are woven with is one of the most progress complexes in the world, with up to weave levels. While existing studies of yok dok textiles use a technical language derived from other textile traditions, this research takes as its starting point the technical terms in the weaving art used by research weavers themselves. The result is a completely new way of understanding one of the new crafts of the weaving art.

I have worked by myself across the learners to access and practice weaving much easier weave style to understand this have studied more than 6 textile samples in my collections, from the prototyped works were a technical research that sets out the authors' alternative classification system via tables, the thin mesh, and diagrams. But it is also a new of a sophisticated weaving art. Each technique is described in detail, with technical details development with accompanying photographs

It will be of great interest to practical weavers, this process of making textiles is inextricably integrated into the mindset of the new cultures of the contemporary region. Furthermore, the researcher can get that these processes of production engage and reflect the perception of textiles as animate objects that connect social constructs and represent knowledge systems on a broader scale. This entire process of textile making as a kind of epistemology or theory of knowledge, and this research

systematically examines the learning sequence and conceptual building blocks of the making of research textiles.

The intention to elevate the discussion of textiles to a higher level of cultural discourse is one that local wisdom information and knowledge have particularly contributed to in my long history of social textile studies in the region for more than twenty-five years. and weaver who brings to the subject understanding and personal experience in the development and learning processes of the weaver's art.

The researcher brings to the project a general perspective in textile studies, we can see some universal aspects of weaving. The movement of yarns interlacing in specific sequences forming textile structures occurs in many regions of the world, and throughout history. The way that tools and methods facilitate this construction can also be somewhat universal or alternatively, unique, culture to culture. The complex weaves of the yok dok developed over millennia are created and controlled by the knowledge and hand of the weaver.

This may reflect a different approach when compared to other cultures that developed un-mechanical means to facilitate the production and reproduction of complex textile designs using patterning systems enabled in modified or sophisticated, such as the drawloom found in past. The possibility of enabling ordinary people who make themselves of ancient textiles to potentially recognize weaving groups based, not only on the technical traits but on the specific generation counting systems embedded in the extant examples, which may, in turn, lead to attributions of cultural and ethnic identity likes researchers next.

Before into the Thai brocades sophisticated that call yok dok weaving, offer to a basic woven pattern is proposed to increase understanding. Weaving can be a really creative and imaginative craft, as well as a practical one. Many weavers seem to worry so much about the technicalities of the craft that they forget the creative opportunities they have at their fingertips. It is difficult to craft a successor expertise may be ended in the 20th century.

2.6 THE TECHNICAL DOMAIN

- The weave structure and the implementation
- The basic textile design principles
- Types of woven construction
- Chart of basic textile

The weave structure and the implementation

The weaving was connecting all people through time in the community. As an art, there is none that is as central and so fully shared among the people, as the woven textile. The exquisite and complex motifs of textiles have been around for at least a thousand years and their power passed and longevity contribute substantially to the generation of meaning through culture. Each in developing textiles as their central artistic expression, In Thai peoples draw on the natural materials of their environment, their rich culture, and history imaginations fertile to produce some of the great treasures of Southeast Asia. The position along significant trade routes means that, over their long history, they have come in contact with threads, dyes, and types of cloth from places far afield. Kind of a Silk cloth and cotton cloth from India and China have been available tread goods.

One day the way of lifestyle for someone how to upper on the layer and has someone under. A Changeling of the politic of the country import culture in Royal Family Court on time. The basic of weaver a loom is restricted only by the limitations of his own loom, and with experimentation, it is surprising what a variety of ideas a handloom can produce only. This is of particular importance to a weaver hoping to use or sell his work. These days he can expect to compete with a doobby or Jacquard machine, or to market, a fabric similar to a mass- produced a hand article at the higher price simply on the grounds that it is hand-woven. The weaver's customer is likely to be attracted to a fabric he is unable to buy on the open market and is generally prepared to pay a fair price for an original creative idea, something weaving and the Language of Design. Now the researcher would present show the process for weave in the step.

Weaving accessories.

- Equipment of the weaving loom

Types of Looms	Power looms	Circular looms
<ul style="list-style-type: none"> - Back strap loom - Drawloom - Handloom - Frame loom 	<ul style="list-style-type: none"> -Dobby looms -Jacquard looms 	<ul style="list-style-type: none"> - Mini jacquard knitting machinery

- Back strap loom

One this the simple loom, named the backstrap loom, a technology they share with many other minority groups around the world. This basic but eminently practical loom comprising an only number of short wooden sticks is easily dismantled and reassembled when and where required. The warp is tensioned by the weight of the wearer's body which, resting against a backstrap connected to the breast beam, allows her to adjust the degree of tension required at any particular time in the weave process. The warp beam is itself braced by the weaver's feet stretched out in front of her.

With this form backstrap loom. The maximum length of cloth woven can only be twice that of the wearer's legs. The weft is inserted with a shuttle and beaten into place either with a smooth flat piece of wood called a sword or beater or with an edge of the shuttle itself. The Co – Tu people are a Khmer – speaking hill tribes living in the central region of the Cordillera between Cambodia and Vietnam. The weaver represented the Chau Ma weaving project, Lam Dong, Vietnam at ‘Vital Traditions, Revival and Innovation of Traditional Textiles’, Hanoi,2002. (Courtesy Liz Williamson) *Traditional Textiles of Cambodia, Culture Threads and Material Heritage, Gillian Green, River Books Co., Ltd.2003. P.59.*



Figure 8: Demonstrating weaving on a foot – braced Backstrap loom.

Source: Traditional Textiles of Cambodia, Culture Threads and Material Heritage, Gillian Green, River Books Co., Ltd.2003. P.59.

- Drawloom

A drawloom is used to weave many different kinds of items of structure and it is capable of weaving complex all patterns surface on top of the fabric. The drawloom makes this possible by having two sets of shafts. The shafts on the loom make the first harness of shafts. The second harness of pattern shafts is placed inside the loom behind the first harness of shafts. The second harness is used to produce patterns which cannot be made on an ordinary loom.

The shaft of drawloom makes repeat patterns. Behind the shafts of the loom, a second harness holds the pattern shafts. Wooden handles for raising the pattern shafts are placed above the beater on the loom. These handles are attached to cords which go over the top of the drawloom frame or bridge. A drawloom has pattern heddles, which make it possible to weave those fantastic brocades fabric, damask or Yok Dok patterns. The process of the features and exotic heddle- finishing technique with the supplementary the system is called a single unit drawloom or harness and is used for weaving pictures, symbols, or large, non-repetitive patterns. In a shaft drawloom, whole pattern shafts are pulled up and the pattern will be repetitive like in a folk costume. That is a processing of weaving that cannot be done on modern machines



Figure 9: The models of Toyota wooden the older drawloom invented by Sakichi. In 1892, Sakichi started a small factory in Tokyo's Taito Ward that used several of the Toyota wooden hand looms invented by Sakichi.

Source.: From the survey at

Toyota Museum, Nagoya, Japan

- Handloom

A handloom is a simple machine loom used for weaving. A typical handloom is a wooden “vertical-shaft” loom. Here, the heddles are fixed in place in the shaft. The warp threads pass alternately through a heddle, and through a space between the heddles (the shed), so that raising the shaft raises half the threads (those passing through the heddles), and lowering the shaft lowers the same thread the threads passing through the spaces between the heddles remain in place.



Figure 10: A typical handloom is a wooden “vertical-shaft”

Source: Weaving Training Center Prachuap Khiri Khan Province.

- Frame loom

Cambodia frame loom is more complex and shaft of loom introduces a number of advantages which facilitate used for weaving of silk cloth used to more elaborate clothing. Note the unusual treadle employed to operate the supplementary weft pattern shafts located between the weaver and the two groundwaves. A pair of pulleys operates the ground weave shaft and more complex arrangement selects the pattern weave shafts.

The warp length can be increased, the weft made wider, and more complex patterning techniques can be attempted. The manner in which the particular form of shaft frame loom is used in Cambodia is in itself unique. Like the textiles and their patterns, its essential structure and component have changed little in the last one hundred and fifty years.

Tools and implements involved in the operation of this distinctive shaft frame loom, in addition to being simple but extraordinarily effective functional tools, are crafted works of art. Extant, antique examples are small masterpieces of carving prowess, surely conveying a significance beyond. The extent and finesse of this decoration set them apart from similar loom implements in other parts of Southeast Asia.

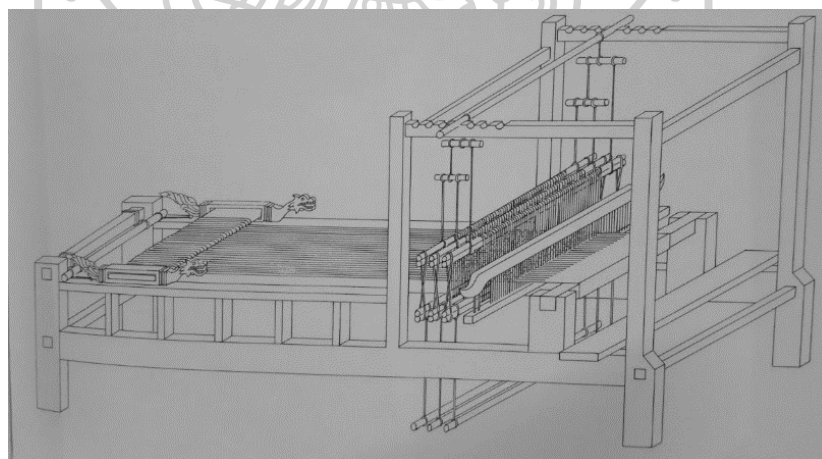


Figure 11: Cambodia three – shaft frame loom warped up for twill weave in that weaves silk fabrics (Diagram by Lisa Eisermann, based on Perry 1995)

Source: Traditional Textiles of Cambodia, Culture Threads and Material Heritage, Gillian Green, River Books Co., Ltd.2003. P.63.

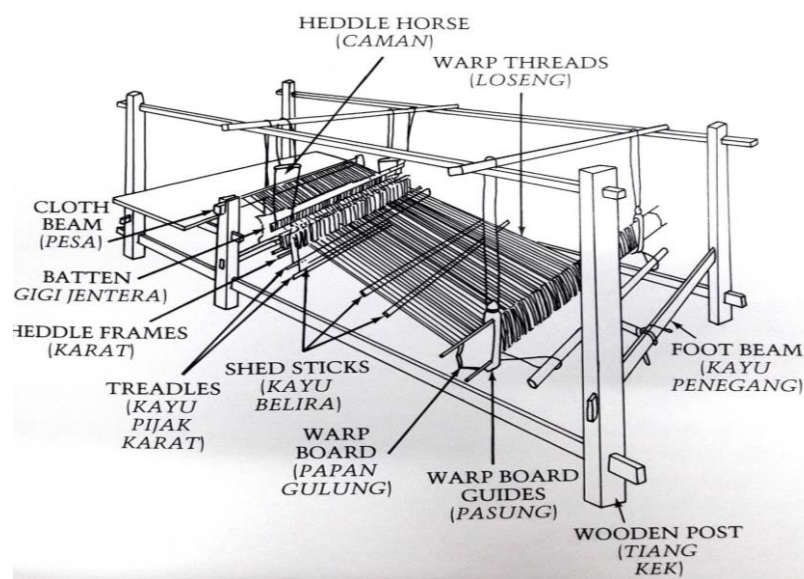


Figure 12: The Malay frame loom (Kek) used for songket weaving.

Source: *Songket: Malaysias woven treasure*. Selvanayagam, Grace Inpam, Singapore, 1933. P.33

The Malay frame loom (Kek) used for songket weaving they are imported from Indian in large quantities in the 16th century (Pires, 1940; Moreland, 1934; Dames, 1921), it is highly probable that the Indian loom also found its way there.

Source: *Songket: Malaysias woven treasure*. Selvanayagam, Grace Inpam, Singapore, 1933. P.33

All types of Looms it is the reference for a key to weaving they are the difference in operation but the outcome will be amenable together.

- Reed

A reed is part of a weaving loom movable swing frame of a loom, carrying the reed for separating the warp threads and beating up the weft and resembles a comb. It is used to separate and space the warp threads, to guide the shuttle's motion across the loom, and to push the weft threads into place. The reed is securely held by the beater and consists of a draw frame with many vertical slits. The floor looms and mechanized looms both use a beater with a reed or batten, whereas in card

weaving and tablet weaving do not use reeds. The components of the batten. The crossed threads from the Porrey cross are carefully separated, checked, and sleyed through the Reed of the batten.

Source: *Songket: Malaysias woven treasure*. Selvanayagam, Grace Inpam, Singapore, 1933. P.32

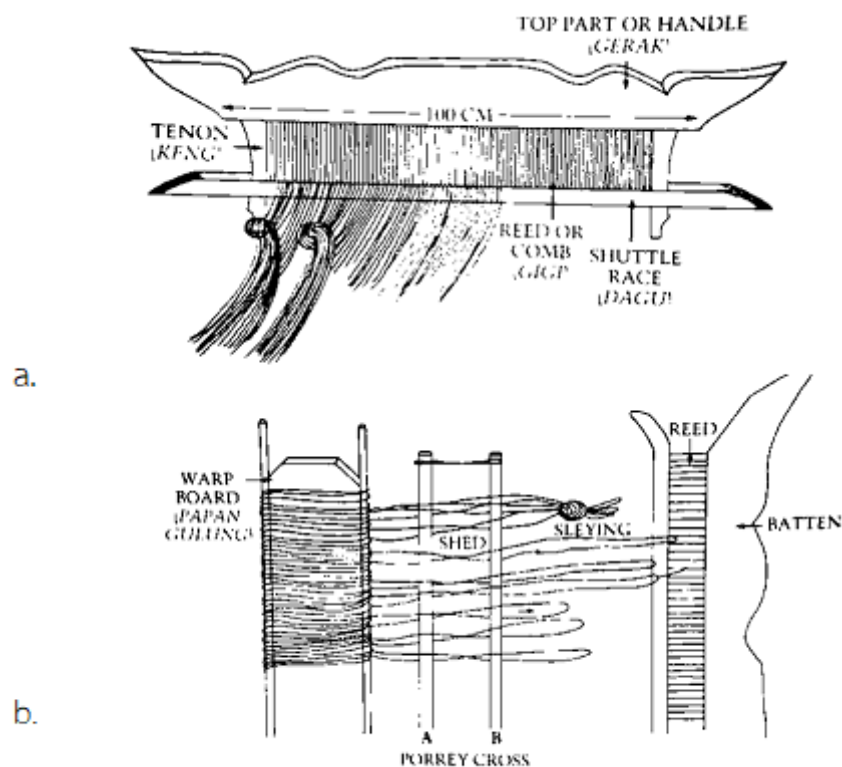


Figure 13: a, b: The method of threading or sleying the Reed of the Batten. (Malay frame loom (Kek) used for songket weaving.)

Source: *Songket: Malaysias woven treasure*. Selvanayagam, Grace Inpam, Singapore, 1933. P.32

- Shuttle:

It is a tool designed to store threads as sends that carries the thread of the weft yarn while weaving with a handloom or drawloom. Shuttles are thrown or passed back and through the shed into weaving with the warp yarn making a piece of fabric.



Figure 14: The shuttle a tool for the thread of the weft yarn.

Source: *Songket: Malaysias woven treasure*. Selvanayagam, Grace Inpam, Singapore,1933. P.42

- **Heddle/Hook/ Harness/ shaft:**

There is a duty to divide the warp yarn into groups to open the empty area of the weft yarn.

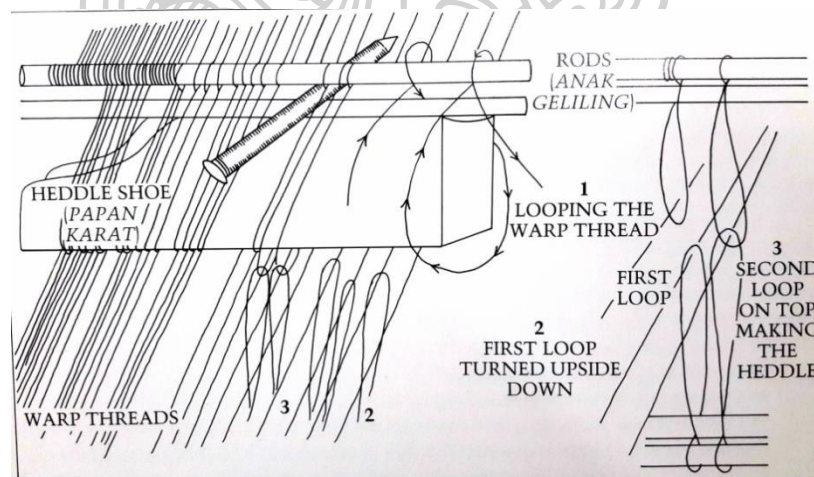


Figure 15: The process of the thick cotton thread is passed through the shed and the warp threads are looped individually around the heddle shoe to form string heddle.

SOURCE: *Songket: Malaysias woven treasure*. Selvanayagam, Grace Inpam, Singapore,1933. P.35

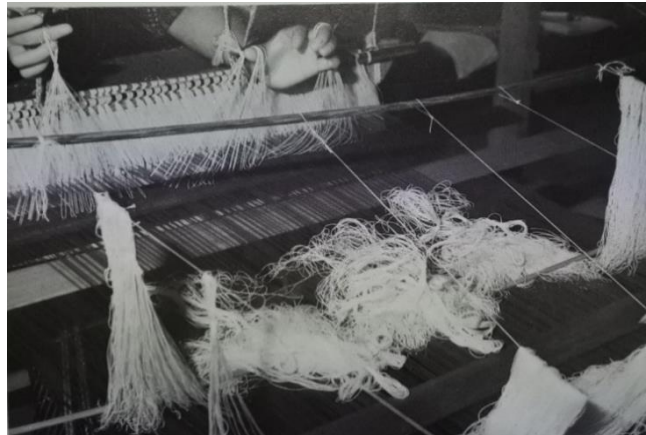


Figure 16: Each of the three bunches of hand leash repeats are connected by one string to facilitate simultaneous lifting (Pusat Kemajuan Kraftangan Malaysia. Kuala Terengganu, 1977)

Source: *Songket: Malaysia's woven treasure*. Selvanayagam, Grace Inpam, Singapore, 1933. P.42

- **Warp Beam:** Use to keep warp yarn roll. In the process, the yarn stands until weaving. It is located behind the loom. Steel core with the pedicle beam of the end yarn to anti-slip yarn
- **Roll:** For a roll of finished woven fabric out of a woven loom. Will be in front of the weaving loom. The steel core, but without a cover, is different from Beam.

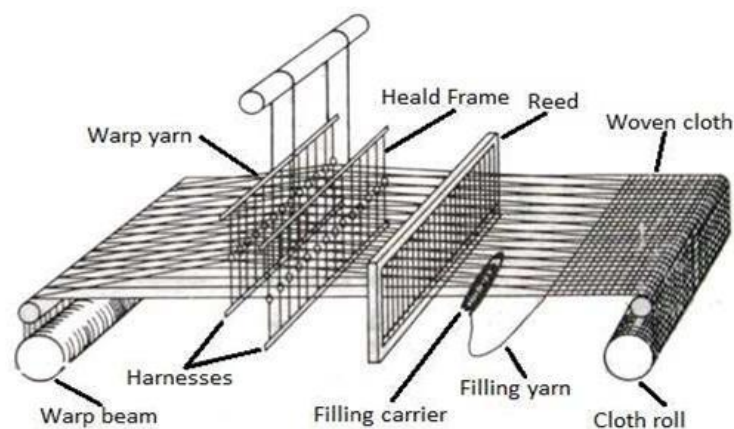


Figure 17: Basic structure of the loom

Source: <https://diutestudents.blogspot.com/2017/05/weaving.html>

- **Warp Yarn or End Yarn**

The end yarn of warping: The warp threads are placed on the loom and run down the length of the fabric, therefore the yarn must be reasonably strong. The threads suitable for weaving which have when a set of wefts yarns the crosswise in combination threads on a loom over and under the warp which other threads are passed to make cloth by a motif of pattern weave. In weaving, the weaver must always to prepare the yarn. It may be several meters long. Preparing the thread is difficult and spend a lot of time warp thread is important in weaving no less than weft thread. When prepared cannot change the warp yarn. Until we weaving finally throughout the process warp yarn is generally smaller than the weft yarns. Usually use high-quality thread, durable and smooth, not rough, weaving generally use the same color line. If the warp yarn is approaching black in shade. It will make the fabric is dark Likewise, if yarn is light in color. It will make the fabric bright. To create an extra pattern for the pattern in the vertical fabric.



Figure 18: The method of warping the end yarns on a traditional warping frame.

Source: Songket: Malaysias woven treasure. Selvanayagam, Grace Inpam, Singapore,1933. P.25,26

- **Weft yarn or Pick yarn**

The Weft /Pick yarn is threaded run width: – Ways in a fabric with as many or fewer threads per inch than in the warp, therefore the thread may be thicker than warp. Some weft threads are used mainly for decorative yarn in the weft, the crosswise threads on a loom over and under which other threads (the warp) are passed to make cloth to make a good quality of the fabric. A judgment of quality can be learned by looking at and feeling the fabric. Creative ideas and decorations may be woven with a variety of materials. After passing the weft thread through the warp, beat it back once into the fabric, after passing the weft thread through the warp, beat it back once into the fabric, by holding a tool used in weaving to force the weft into place in the Centre to be sure the pressure is even. Alternating with warp yarn to make a cloth. This thread is usually threaded or rolled in a tube. Packed in a shuttle for the convenience of inserting will movement, to the thread. In parallel with the fabric, that is, the left and right of the weavers. Maybe by hand or rush with a rope with the usual exertion.



Figure 19: The unwinding a hank of thread and simultaneously winding the threads on to a bobbin. Some threads are used mainly for weft yarn in the filling carrier of fabric.

Source: Songket: Malaysias woven treasure. Selvanayagam, Grace Inpam, Singapore,1933. P.42

The basic textile design principles

The origins of fabric

The art of weaving has evolved over the course of thousands of years, through discovery and experimentation. It involves the production of fabric or cloth by interlacing two distinct sets of yarns or threads in a right angle. The (usually pulled taut) vertical strings are called the warp, and the horizontal thread that is intertwined over and under them is called the weft. The way these two strings are interwoven affects the characteristics of the cloth that will be produced.



Figure 20: The warp/weft yarn and basic weave.

Source: The survey at Toyota Museum, Nagoya, Japan.

Steps to weaving

1. Yarn for warp: The warp threads are placed on the loom and run down the length of the fabric, therefore the yarn must be reasonably strong. The only threads unsuitable for the warp are single threads which have not been plyed, with the exception of tweed wool soaked in oil or certain fancy spun yarns.

2. Yarn for weft: The weft threads run width – ways in a fabric with as many or fewer threads per inch than in the warp, therefore the threads may be thicker than the warp. Some weft threads are used mainly for decoration and need not be very strong. When this is the case, it is important to use a stronger yarn as well, or the warp yarn in combination with the decorative yarn in the weft, to make a good quality of the fabric.

3. Making the warp: A warping board is usually one yard wide. When measuring and placing are required at one side or the other of the warping board for every yard added to the warp. When changing the color of the warp thread, tie the two threads together with the knot as possible. If alternate threads of different colors or texture are required in the design (this is often very effective), it is not necessary to break the thread off every time, the two threads may be run together in the warp and separated again for threading in the healds (heddles). When counting these threads in the warp do not forget that they are double, and count as two.

Start the weaving by selecting the yarns for the warp, the beginner is wise to limit his selection to two or three colours. It does not matter if the yarns are of different thicknesses. At this place, short lengths of warp yarns side by side through the dents of the reed, arranging the threads in order of colour or texture to make the design of the warp stripe as desired. Making on the loom will be pressing the warp yarn 1 sets will be separated and gap. Insert the shuttle through the thread. The first set of picks yarn the second set of wefts to do it alternately.

Types of woven construction

Weave Structure/Pattern weaving

Basic Weave Structure

Specifications Details of weave, draft and slewing or denting should be drawn on point paper. The graphical illustration of interlacing between warp ends and weft picks is marked on point paper (design – or graph). The standard point paper is ruled in groups of 8 x 8, separated by thicker bar line.

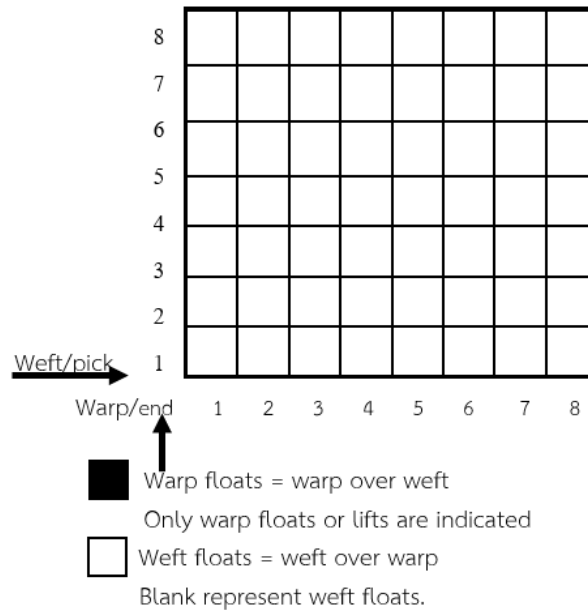


Figure 21: A point paper. Drawing by the researcher.

The basic 4 types of textiles

- Plain Weave
 - Balanced plain weave
 - Warp Faced plain weave
 - Weft Faced plain weave
- Rib Weave
 - Ribbed plain weave
 - Basket Weave
- Twill Weave
- Satin Weave

- Plain Weave

The simplest possible interlacing of warp and weft element produces plain weave also called tabby, taffeta weave, linen weave, cloth weave, checker weave, and so on. The principle of the interlacing is unvarying alternation. Each weft unit passes alternately over and under successive warp units, and each reverses the procedure of the one before it. The warps are separated into only two groups. All warps that lie above one passage of the weft lie below the next, above the third, and so on. It is possible to vary the nature of the fabric by modifying the spacing, pliability, or size relationships between warp and weft element, or by grouping elements into units, without varying the simple alternately order of interlacing which constitutes plain weave. The obverse and reverse of plain weave are structurally identical.

SOURCE.: The Primary Structures of Fabrics: IRENE EMERY, New York, January 1965, P. 76.

- **Balanced plain weave**

If the warp and weft elements are equally spaced and either identical or approximately equal in size and flexibility, the plain weave can be described as balanced.

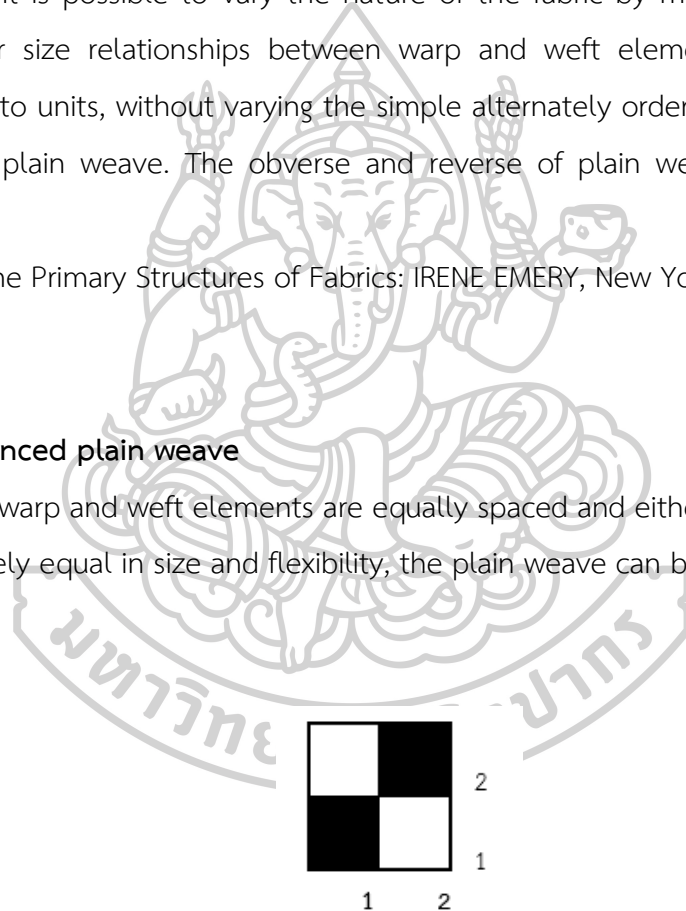


Figure 2.22 a: Plain Weave 1 repeat. Drawing by the researcher.

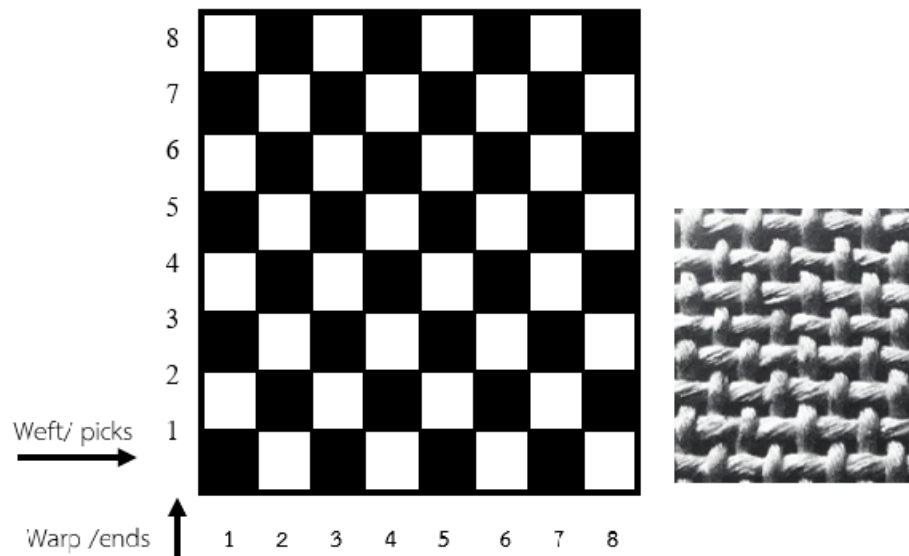


Figure 22 b: Plain Weave 1/1 repeat balanced warp and weft equal in size, spacing and count. Drawing by the researcher

Source: The Primary Structures of Fabrics: IRENE EMERY, New York, January 1965, P. 76.

Plain Weave is the tightest weave, with the threads interlacing as much as it is possible for them to interlace therefore the warp threads can be slightly more spaced out. Patterned weaving usually has less interlacing of threads forming the design, so the warp threads need to be set closer together to make a good construction and a hard-wearing fabric.

There are various tests which enable a weaver to judge very accurately how many warp threads he should have to an inch. Produces the simplest form of interlacing the consists repeat of 2 ends 2 picks, each interlace in alternate order or under a pick.

Plain Weave is the most important of all structures and forms the foundation for many combinations and techniques. It is undoubtedly one of the most used weaves. The variations are endless, from very light sheer fabrics made of silk or rayon, to the heaviest canvas made of hemp or cotton.

- Rib Weave

Ribbed plain weave in plain weave, a marked numerical predominance of one set of elements over the other tends to produce a “ribbed” effect sometime referred to as rep for discussion of the use of the term. The ribs extend in the direction of the concealed element. The prominence of the ribs depends on the relative size and spacing of the two sets. In general, the larger the concealed elements in proportion to the elements that cover them, the more prominent the effect of ribbing, but ribbing can be produced by spacing alone with warp and weft element that are identical. The appearance of ribbing is made more pronounced if large and small units are alternated in the hidden set, a characteristic sometimes specifically implied by the use of the term rep, or repp.

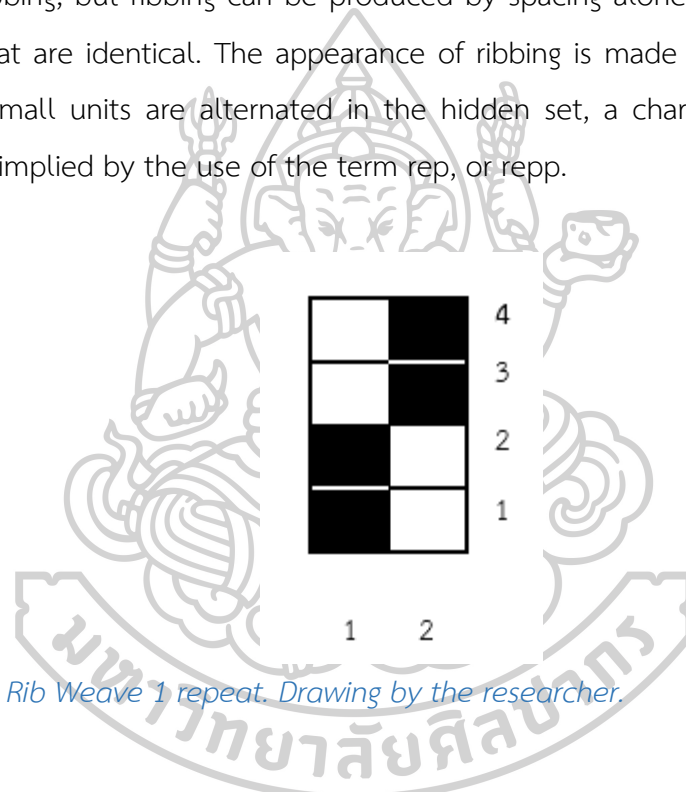


Figure 23 a: Rib Weave 1 repeat. Drawing by the researcher.

Ribbed plain Weaves: These are an extension of plain weave in warp or weft direction. Rib gives a more flexible cloth than plain weave and has many applications. Fabrics are woven in silk, cotton, wool, worsted and man-made fibers. Their end uses rang from dress fabrics, coats, suits, millinery, ribbons and webbing to upholstery and drapery. Often rib fabrics are woven in white and then piece-dyed, resulting in a higher production and lower costs. And the pattern is adapted from the Plain Weave. Can be expanding on both sides.

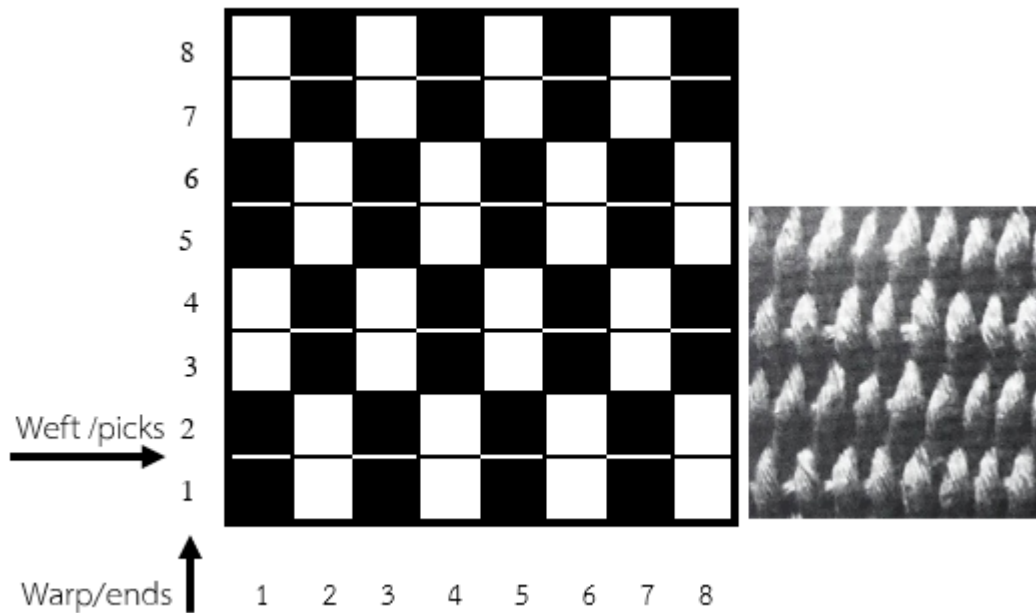


Figure 24 b: *Warp Rib Weave* 1/2 *Warp Faced Plain Weave* 1/1 repeat.
Drawing by the researcher.

Source: *The Primary Structures of Fabrics: IRENE EMERY, New York, January 1965, P. 76.*

Warp Rib: Warp ribs are constructed by inserting several picks in succession into the same shed of an ordinary plain weave. This forms a rib effect across the fabric. They are woven with a substantially higher number of ends than picks. The warp should cover the weft on both sides of the fabric. The weft yarn has usually less twist and is of thicker count. The vertical stripes as the embossed thread pattern on the fabric are paralleling a warp end.

- **Warp Faced plain weave**

The greater the number and the closer the spacing of warp elements in relation to weft, the more the warp will tend to conceal the weft. If the warp elements hide the weft elements completely, the weft will affect the fabric only by its presence, not by its appearance, and the fabric is said to be warp-faced (FIG. 7). If the warps outnumber the wefts yet do not entirely conceal them, the fabric can be described as having a predominant warp.

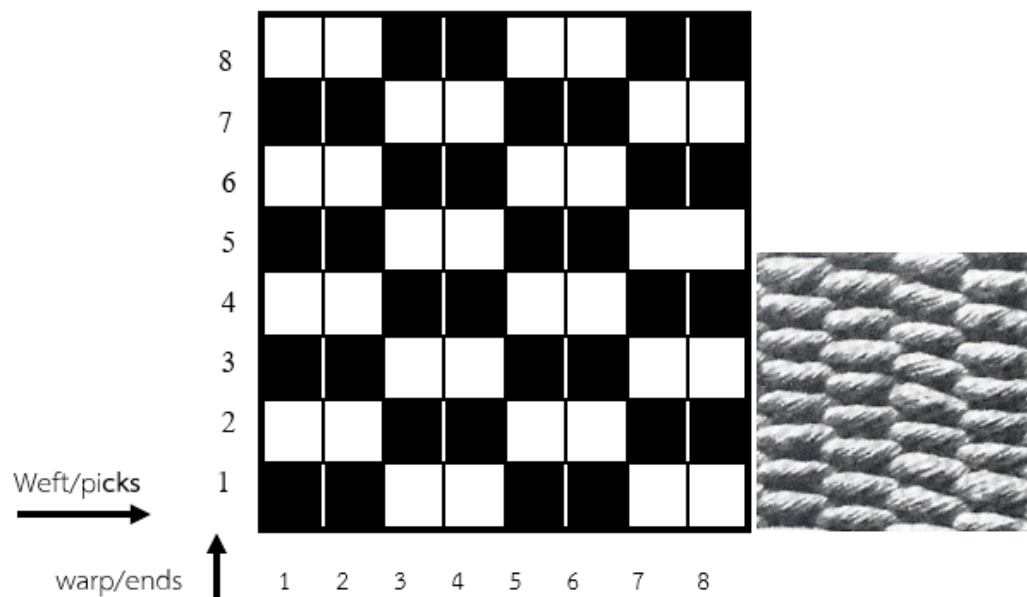


Figure 25: Weft Ribs Weave 2/2 Weft Faced Plain Weave 1/1 repeat.

Drawing by the researcher.

Source: *The Primary Structures of Fabrics*. IRENE EMERY, New York, January 1965, P. 76.

Weft Ribs: For the rib weaves special point paper has been used to emphasize warp or weft predominance, linking the point paper illustration with the actual woven fabric. **Weft Ribs** are constructed with several warp threads used as one when interlacing with each pick in succession. they form a vertical rib in the fabric. They have a considerably higher number of picks than ends. The weft should cover the warp on either side of the fabric. Finer weft yarns will give better coverage and make it easier to achieve the required pick density. Weft rib, due to its high number of picks, increases the production costs. The horizontal of weaving is embossed on the fabric parallel to the vertical line. By giving the weft picks yarn over the warp ends yarn, standing two lines up, that ridge is embossed throughout the length of the fabric.

- Weft Faced plain weave

If, on the other hand, the relationship between warp and weft is reversed and the wefts are sufficiently numerous and sufficiently compacted to completely cover the warps, the fabric is weft – faced (FIG. 8); if the weft obscures but does not conceal the warp, the fabric can be described as having a predominant weft.

- Basket Weave

Multiple – element units warp weft elements are not necessarily used singly as in the illustrations. The elements of either or both sets can be paired, tripled, or used in larger groups

– regularly or irregularly disposed. If identical unit are used in warp and weft the plain weave structure is often called “basket” or “matt” weave. If the unit of only one set are multiple the weave is sometimes described as “haft-” or semi-basket” (an unhappily indefinite designation since it fails to indicate whether it is warp or weft elements that are multiple). Fabrics which have multiple units in only one direction will not have a balanced appearance although the “count” (usually of units rather than of component threads) may be the same for both warp and weft. Modifications (predominance of warp or weft, ribbing, etc.) are affected as in any plain weave.

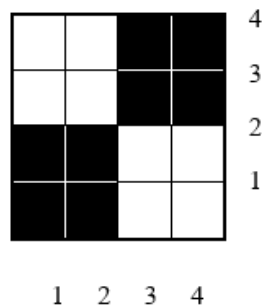


Figure 26 a: Basket Weave 1 Repeat. Drawing by the researcher.

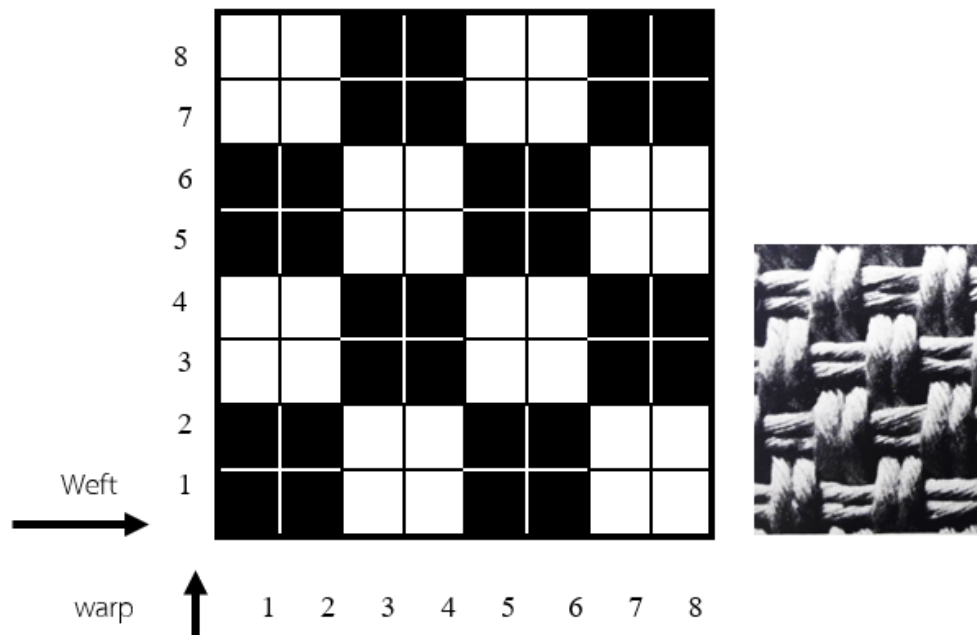


Figure 27 b: Basket Weave 2/2 Repeat Plain Weave with paired warps and wefts (sometimes called “basket” or “matt” weave). Drawing by the researcher.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 77.

Basket Weave: These are a combination of equal warp and weft rib: the basic structure is then transposed in four squares. Where each square join, clear cuts must be obtained by changing warp rib into weft rib and vice versa. Each diagonally opposite square is identical. Due to the constant exchange between warp and weft rib, these fabrics have great elasticity when woven in wool. Weaves that are transposed in the above-mentioned way are also referred to as ‘diced weaves’ the pattern is expanded like a Plain Weave everything. Just increase the number of yarns, warp yarns and weft yarns doubled on both sides. Usually used as a pattern of the savage woven of fabric.

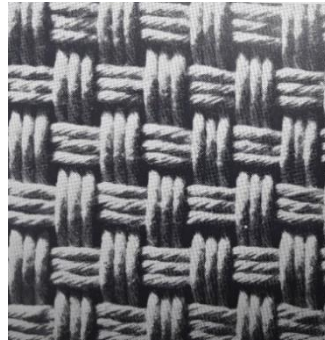


Figure 28: Plain Weave with tripled warps and wefts (sometimes called “3/3basket” or “3/3matt” weave).

Source: The Primary Structures of Fabrics: IRENE EMERY, New York, January 1965, P. 77.

- Twill Weaves

Twill Weaves are float weaves characterized by a diagonal alignment of floats for which a minimum of three warp grouping is essential (four, for warp and weft floats of equal span). Adjacent wefts never float over or under the same group of warps, and for each successive passage of the weft, the warp grouping is stepped one warp beyond the previous grouping. If the shift is always to the right or always to the left, continuous diagonals will be formed on both faces of the fabric. The direction of diagonals on one face is always the reverse of that on the opposite face.

Although different viewpoints and purposes naturally lead to different systems of classification, the primary structural differences between twill weaves pertain to two basic factors: the numerical span of the floats and the direction of a twill gives its basic float-span ratio.

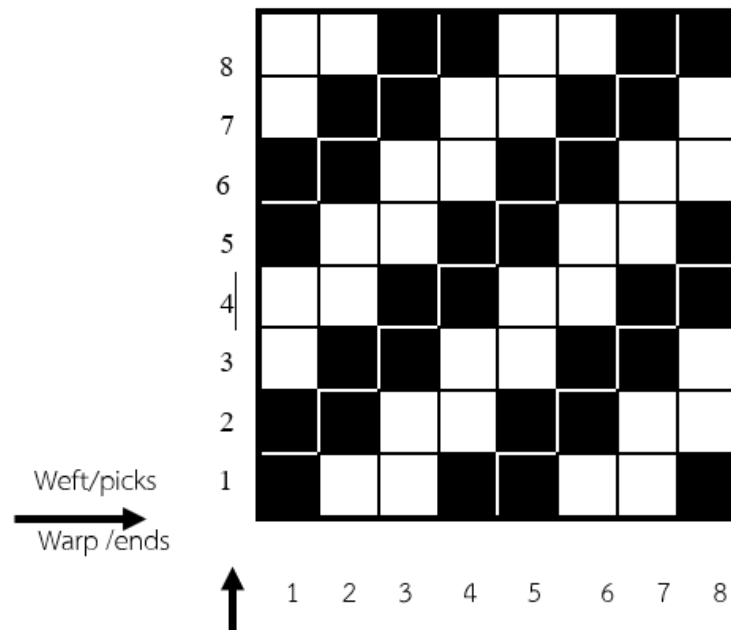


Figure 29a: Twill 2/2 Drawing by the researcher.

Z Twill weave

S Twill weave

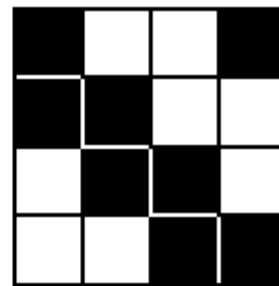
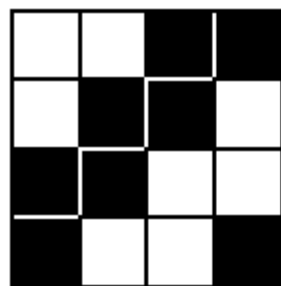


Figure 30b: Twill derivatives offer Z and S Drawing by the researcher.

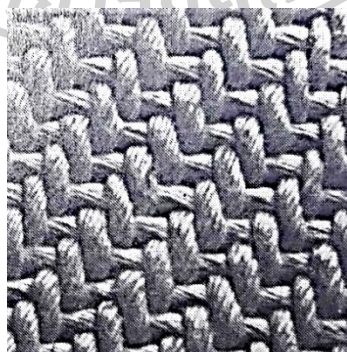


Figure 31c: "Plain" 2/2 Twill the diagonals are continuous, their direction reversed on the opposite face.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 93.

Even Twill: Are those in which elements of each set pass over and under equal numbers of opposite set. This makes the numerical order of both warp and weft interlacing the same on the two faces of the fabric and the two faces identical, although the direction of the diagonals is reversed. Construction of an even twill requires a minimum of four different warp groupings and this minimum (designated 2/2 since the interlacing is over-2-under-2) is used here to typify all even twills.

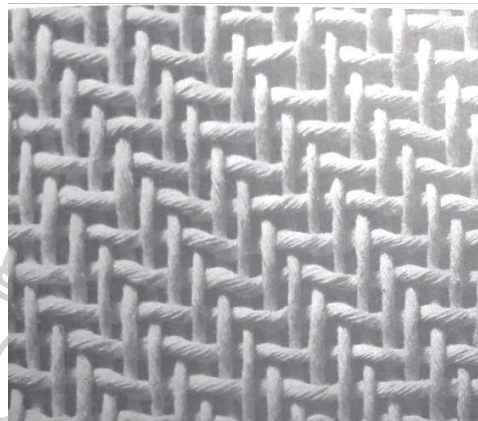


Figure 32: Diagrammatic construction of "Plain" 2/2 Twill the diagonals are continuous, their direction reversed on the opposite face.

Source: The Primary Structures of Fabrics: IRENE EMERY, New York, January 1965, P. 93.

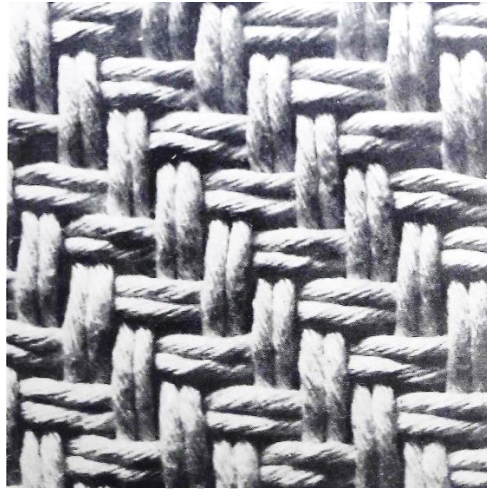


Figure 33: 2/2 Twill with paired warps and wefts.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 93.

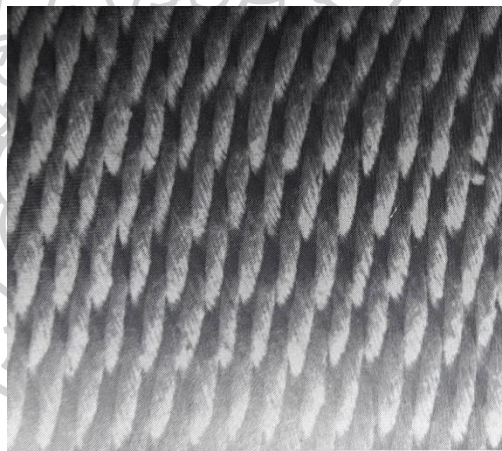


Figure 34: Warp-faced 2/2 Twill.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 93.

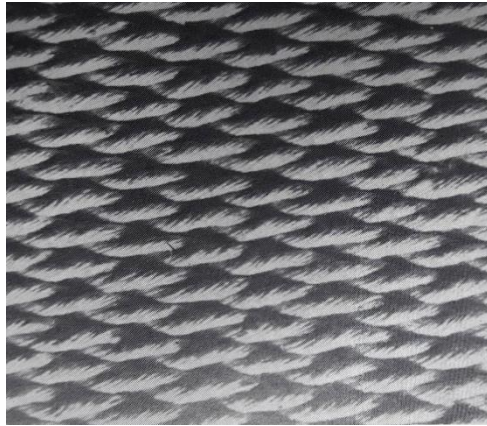


Figure 35: Weft-faced 2/2 Twill.

Source: The Primary Structures of Fabrics: IRENE EMERY, New York, January 1965, P. 93.

Uneven Twill: The basic interlacing order of an uneven twill weave is such that no element passes over the same number of elements it passes under; thus, the two faces are always structurally dissimilar. No twill weave can be constructed with fewer than three different warp groupings, and one constructed with only three is necessarily 2/1, that is, an uneven twill. With four groupings, either even (2/2) or uneven (3/1) twill is possible; with five, there is a choice of uneven twill (4/1 or 3/2). The number of possible twills – interlacing order increases with additional warp groupings.

On either face of an uneven twill, the interlacing order of the warp is the converse of the weft order, one face of a 2/1 twill, each weft passes over one warp and under two, the warp over two weft and under one. Since the only floats on this face are warp floats, it can be designated the warp- floats face. The opposite or weft- float face, warp and weft are interchanged in interlacing order, and the only floats are weft floats.

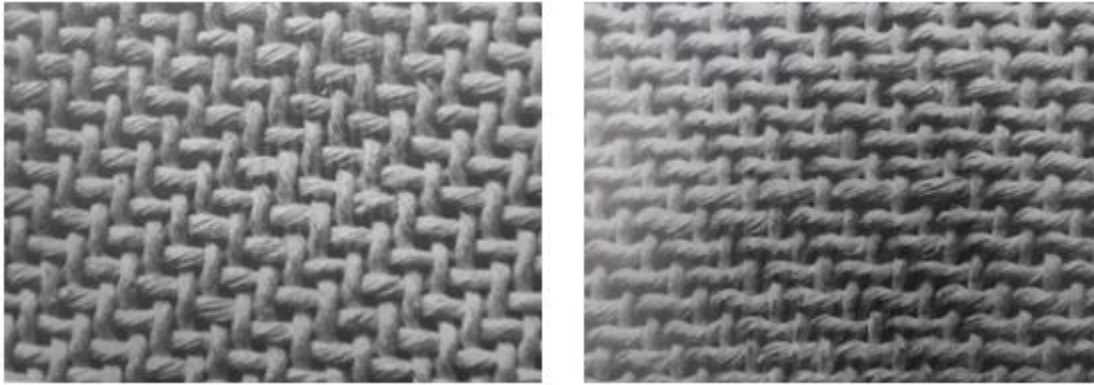


Figure 36: The warp-float face of a 2/1 Twill opposite of the weft-float face of a 2/1 Twill.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 99.

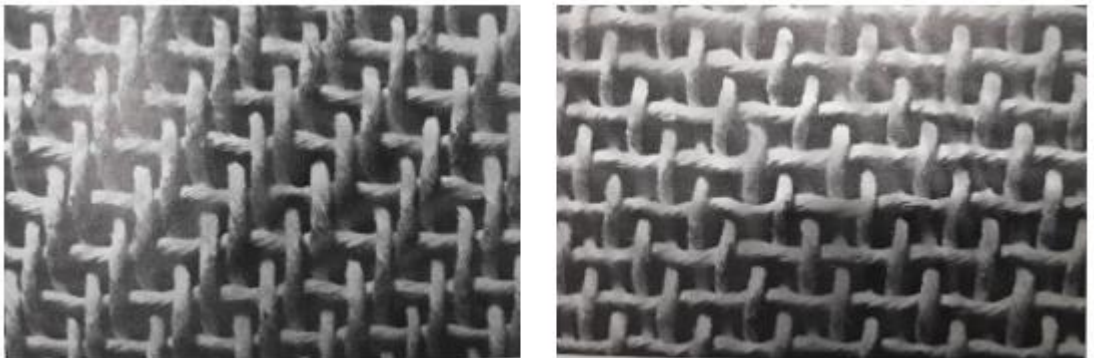


Figure 37: The warp-float face of a 2/1 Twill- diagrammatic construction of opposite face of weft-float face of a 2/1 Twill.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 99.

Variations of Even: Twill In plain twill, the diagonal alignment of floats is consistent and continuous; and the numerically designated order of interlacing is maintained by both warp and weft throughout. However, breaks in the continuity and reversals of the direction of the diagonals can be arranged in the innumerable different way to produce variations of structure and pattern in which the interlacing order of either or both sets of elements is almost invariably altered to some extent. The variations are usually described in terms of the associated patterning zigzag herringbone but the application of the terms is neither specific nor uniform.

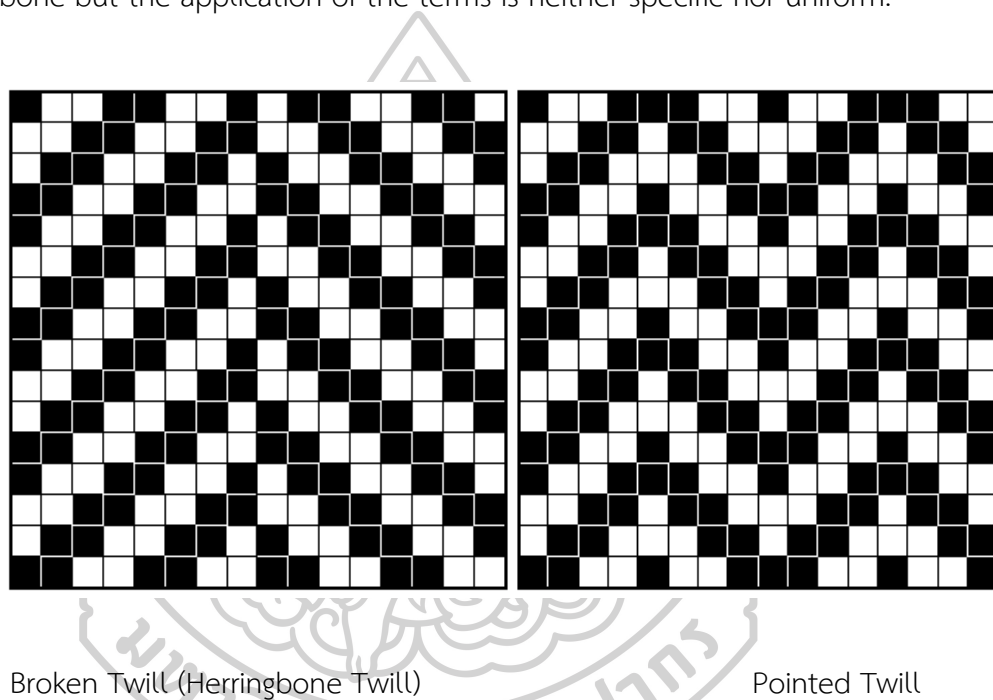


Figure 38: Twill derivatives Broken Twill (Herringbone Twill) and Pointed Twill -Pointed Twill. Drawing by the researcher.

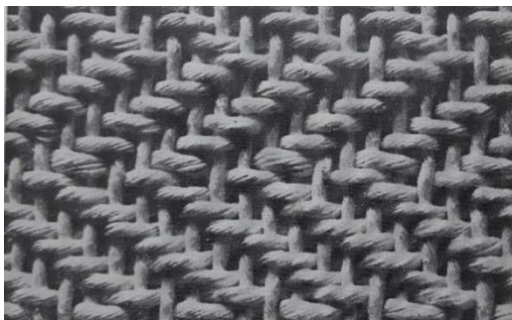


Figure 39: Symmetrical (or pointed twill) 2/2 horizontal herringbone.

SOURCE: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 95.

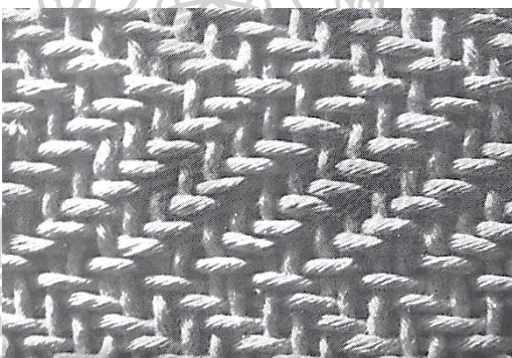


Figure 40: Staggered (or non-pointed) 2/2 horizontal herringbone.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 95.

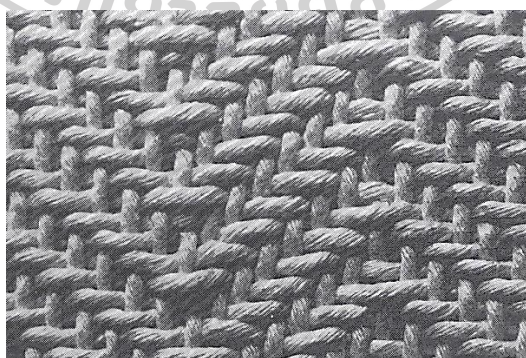


Figure 41: Symmetrical (or pointed) 2/2 vertical herringbone.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 95.

- Broken Twill

If the direction of the diagonal float- alignment is never maintained for more than two weft passages, and the changes are staggered, no diagonal is developed. It is this type of “broken up” twill, actually a succession of staggered reversals, that is usually meant by the term broken twill.

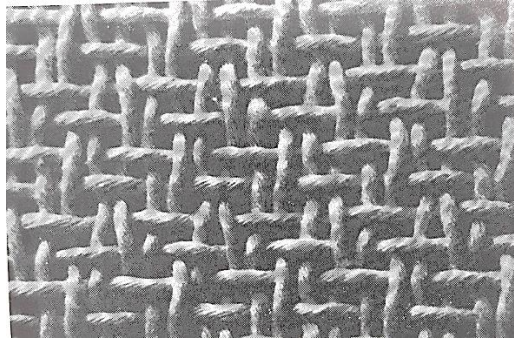


Figure 42; Diagrammatic construction showing a succession of Staggered reversals in 2/2 twill, usually called broken twill.

Source: The Primary Structures of Fabrics: IRENE EMERY, New York, January 1965, P. 95.

Diamond Twills: A Diamond effect is developed by combining the peg plan of the Broken Twill and the draft of Pointed Twill. In waved twills the diagonal line proceeds either to the left or right. Where two lines meet, they create a point, forming a continuous zig-zag effect in the fabric. Selecting the right twill weave when constructing waved or diamond effects is of great importance. Short warp or weft floats should be used so as to avoid long floats when the weave is reversed.

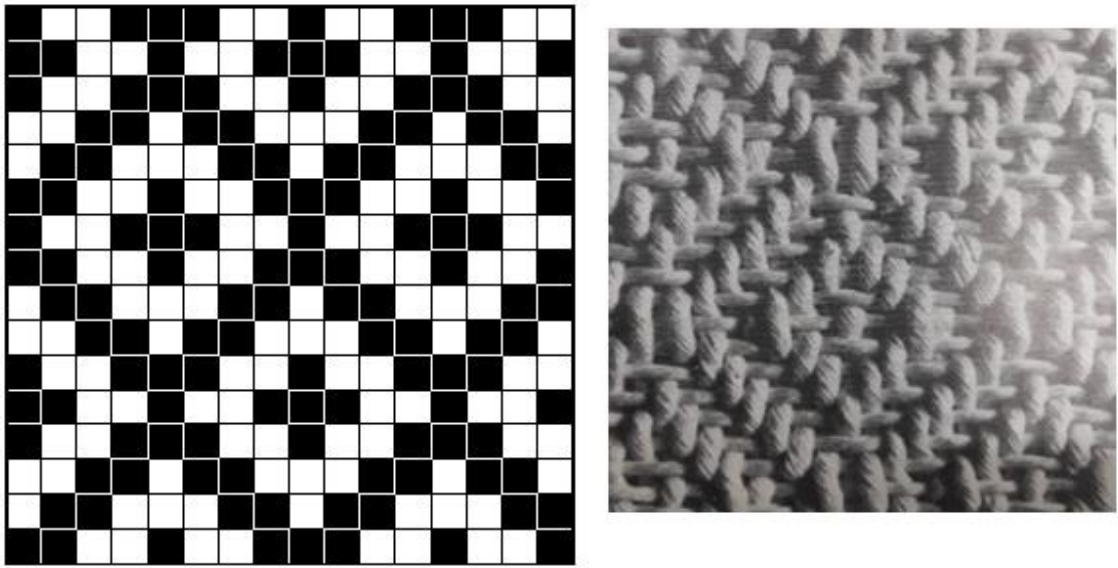
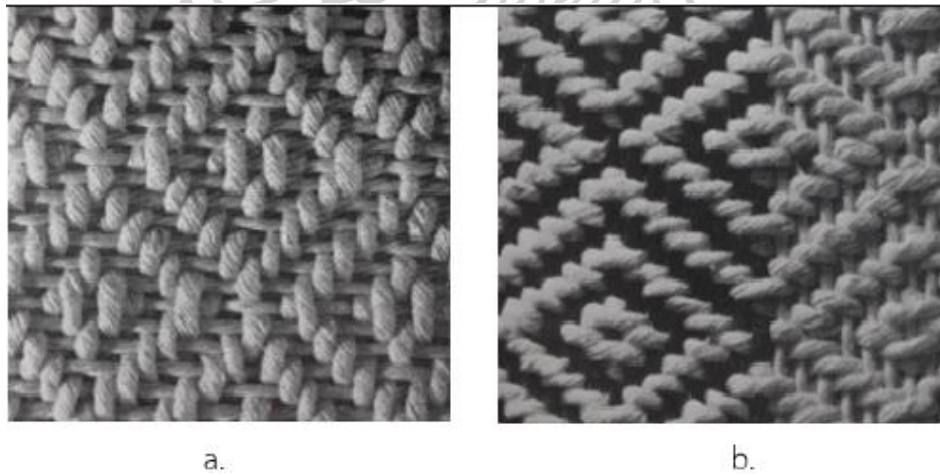


Figure 43: Twill derivatives Diamond Symmetrical 2/2 Diamond twill.

Drawing by the researcher.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 97.



a.

b.

Figure 44a: Opposite face of symmetrical 2/2 Diamond twill, showing a characteristic difference.

Figure 45b: Effect of varying warp color in a symmetrical 2/2 Diamond twill.

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 97-98.

- Satin Weave

In textile terminology, the word “satin “is used in two basically different ways :to refer to a type of woven fabric characterized by a smooth lustrous surface and a silky appearance (even if not actually made of silk); and also to designate a type of weave characterized by long floats of one set of elements and more or less evenly distributed single ‘ties’ of the other, on each face (warp-floats on one face, weft – floats on the other). Although satin weave undoubtedly owes its extensive development and much of its use to the fact that it can provide the lustrous smooth-surfaced quality which identifies the fabric known as satin, identification of the weave is not contingent on the presence of that quality. Satin weave can be used with quite different effect.

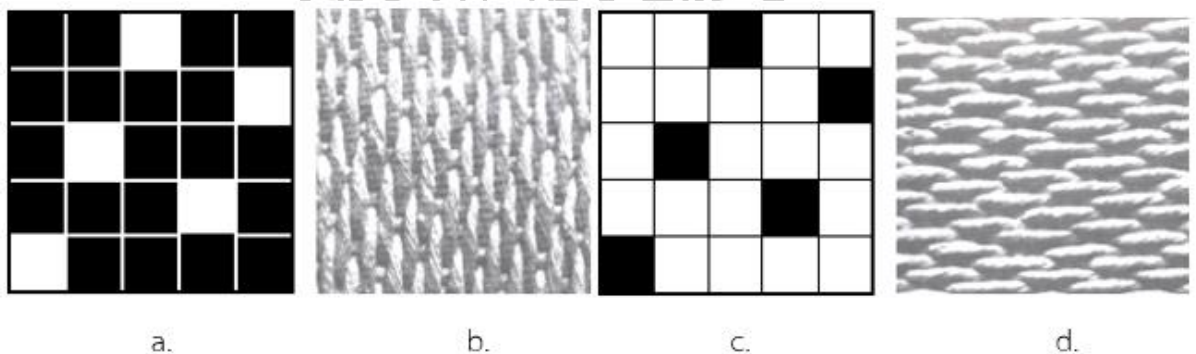


Figure 46: a, c Satin 4/1 or opposite face of Satin1/4 Drawing by the researcher.

Figure 47: b the warp-floats on one face of a 4/1 satin weave with predominant warp.

Figure 48: d the weft-floats on one face of a 1/4 satin weave with predominant weft.

Source: *The Primary Structures of Fabrics: IRENE EMERY, New York, January 1965, P. 109.*

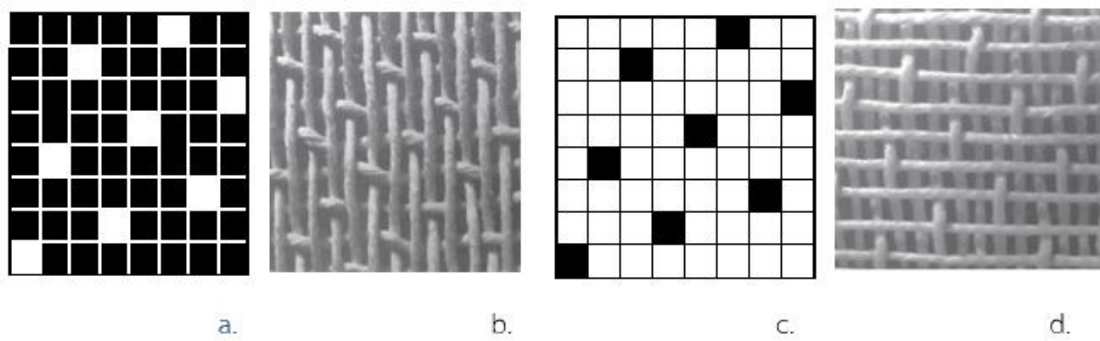


Figure 49: a, c satin 7/1 or opposite face of satin 1/7 Drawing by the researcher.

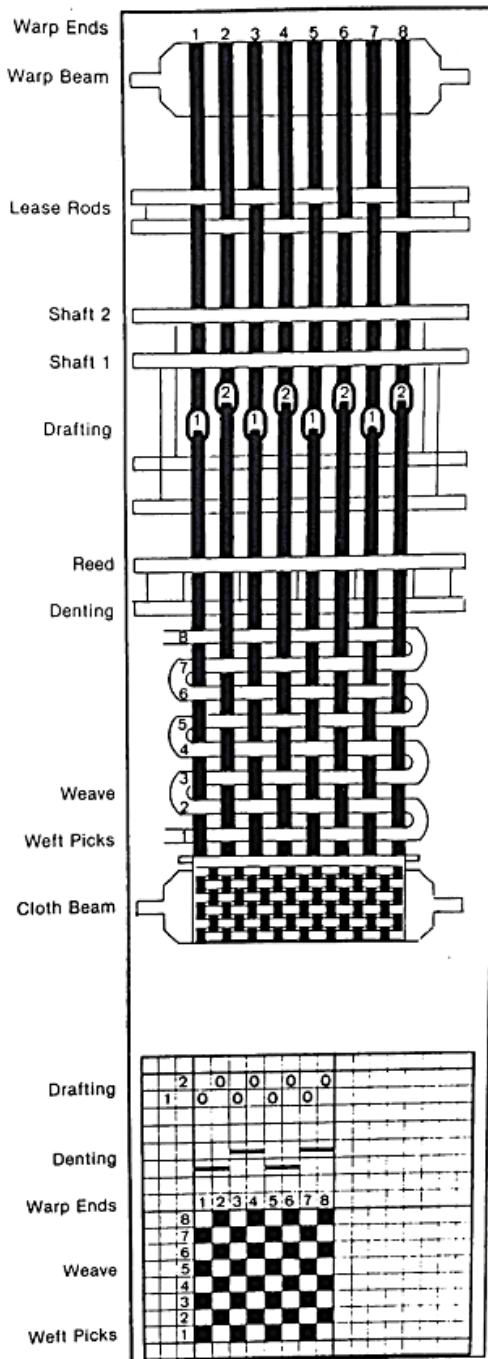
Figure 50: b Diagrammatic construction of the warp-floats face of the regular satin 7/1

Figure 51: d: Diagrammatic construction of the weft-floats face of the regular satin 1/7

Source: *The Primary Structures of Fabrics*: IRENE EMERY, New York, January 1965, P. 110.



Chart of basic textile



Warp ends or threads are wound on to a warp beam in the required length, density and width. The first end in a warp is on the left-hand side facing the loom.

Lease rods separate the ends to facilitate correct drawing-in through the heads on each shaft.

A shaft is a frame with wire or string heads having eyelets in the center through which the warp ends are drawn, for the purpose of forming a shed during weaving operations. Each differently interlacing end in a repeat requires an extra shaft. Usually, identical working ends are drawn on the same shaft.

To achieve the required density in a fabric the warp ends are spaced out across the width by the reed, metal wires separating the ends according to the denting plan. The reed also has the function of guiding the shuttle across the loom and serves to beat up the last inserted pick against the cloth already woven.

A weave is constructed by the interlacing between warp ends and weft picks. The required pick spacing.

Specifications

Details of weave, draft and denting should be drawn on point paper.

Horizontal lines above the weave are used to represent the shafts and the reed.

Figure 52: The basic textile and specifications Details of weave, draft and slewing or denting should be drawn on point paper.

Source: Woven Structure and Design: Doris Goerner, United Kingdom, March 1986, P. 3.

Weaving machine (Power loom)

- Dobby loom
- Jacquard loom

The industrial revolution, and the revival of hand-woven textiles. By the end of the 19th century, the industrial revolution had rendered handcrafts obsolete, since modern machines, like the Jacquard mechanical looms, were taking charge of textile production.

Nowadays, hand-woven fabrics and textiles are appreciated for what they are; unique works of art of unparalleled quality and worth. However, interest in hand-woven textiles was revived during the 20th century, thanks to the Art Deco movement, and folk handcrafts organizations in the US and the UK taught crafters to be almost entirely self-sufficient.

Source: <https://wildtussah.com/history-weaving-2/>

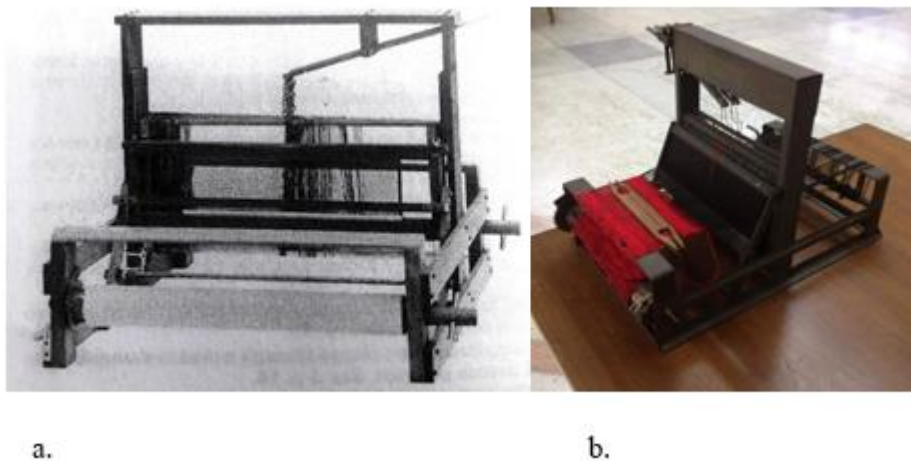


Figure 53: a. Dobby loom Four-shaft(harness)

Source: *Simple Weaving Hilary Chetwynd, New York, 1969, P.,*

Figure 54: b. Dobby loom Four-shaft(harness)

Source.: *Poh Chang Academy of Art*

- Dobby

This particular power loom is called dobbie loom. Which each harness can be selected without using treadles; a manual dobbie uses a chain of bars or lags each of weave which has pegs inserted marking point to the controller the warp yarns. The pegs select the harness to be moved to the upper or next step following a diagram designing. Nowadays computer assisted dobbie loom uses a computer program to select which harness is to be moved. In either case, the harnesses are lifted or sunk by either push power on a dobbie pedal or electric or other power. This is in contrast to a treadle handloom, where the harnesses are attached by cords to a limited number of different treadles to select and move the harnesses.

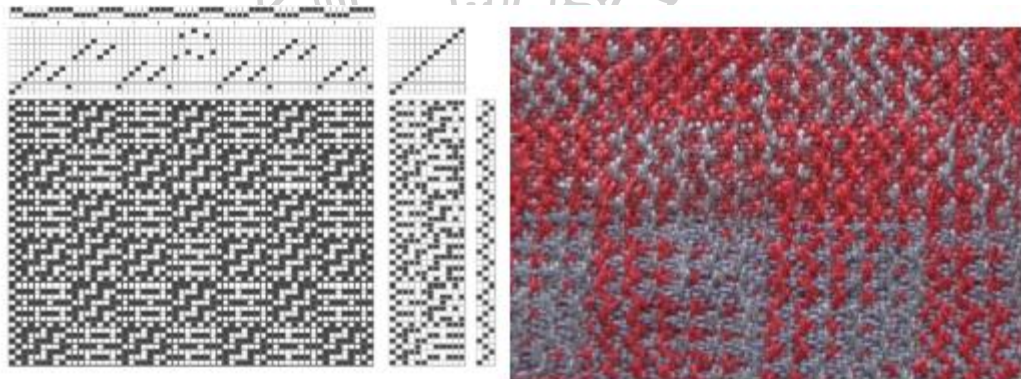


Figure 55: Dobby Weave in program and a woven fabric pattern on loom.

Source: The researcher survey at Toyota Museum, Nagoya, Japan.



Figure 56: Dobby Weave in program and a woven fabric pattern on loom.

Source: The researcher survey at Toyota Museum, Nagoya, Japan.

- **Jacquard**

The Jacquard machine (French: is a device fitted to a power loom that simplifies the process of manufacturing textiles with such complex patterns as brocade, damask, and matelassé. It was invented by Joseph Marie Jacquard in 1804. The loom was controlled by a "chain of cards"; a number of punched cards laced together into a continuous sequence. Multiple rows of holes were punched on each card, with one complete card corresponding to one row of the design. Several such paper cards, generally white in color, can be seen in the images below. Chains, like Bouchon's earlier use of paper tape, allowed sequences of any length to be constructed, not limited by the size of a card.

Sour: https://en.wikipedia.org/wiki/Jacquard_loom

Joseph-Marie Jacquard, French inventor

Joseph-Marie Jacquard, (born July 7, 1752, Lyon, France—died Aug. 7, 1834, Outlines), French inventor of the Jacquard loom, which served as the impetus for the technological revolution of the textile industry and is the basis of the modern automatic loom.

Jacquard first formed the idea for his loom in 1790, but his work was cut short by the French Revolution, in which he fought on the side of the Revolutionaries in the defense of Lyon. In 1801 Jacquard demonstrated an improved drawloom, for which he was awarded a bronze medal. He continued his work, and in 1804–05 he introduced an attachment that has caused any loom that uses it to be called a Jacquard loom. In 1806 the loom was declared public property, and Jacquard was rewarded with a pension and a royalty on each machine.

His machine aroused bitter hostility among the silk weavers, who feared that its labor-saving capabilities would deprive them of jobs. The weavers of Lyon not only burned machines that were put into production but attacked Jacquard as well. Eventually, the advantages of the loom brought about its general acceptance, and by 1812 there were 11,000 in use in France. In 1819 Jacquard was awarded a gold medal and the Cross of the Legion of Honors. The use of his loom spread to England in the 1820s and from there virtually worldwide.

Written by: The Editors of Encyclopaedia Britannica
<https://www.britannica.com/biography/Joseph-Marie-Jacquard>

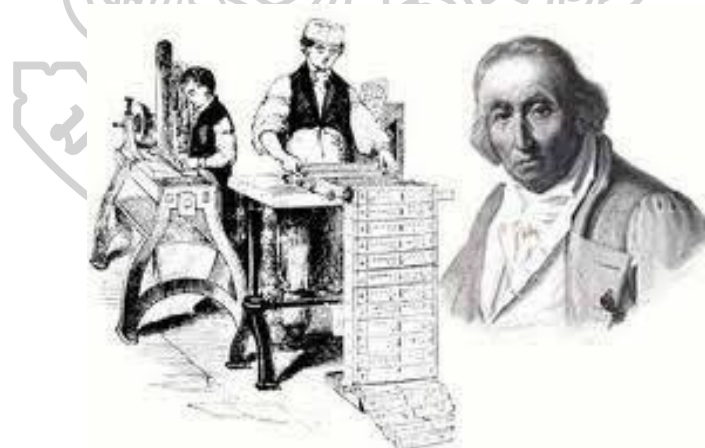


Figure 57: Joseph Marie Jacquard

Source: https://en.wikipedia.org/wiki/Jacquard_loom



Figure 58: Joseph Marie Jacquard pattern weaving Loom (1804). The older Jacquard drawlooms and punched cards at Deutsches Museum, Munich, Germany.

Source: https://commons.wikimedia.org/wiki/File:DMM_29263ab_Jacquardwebstuhl.jpg

A Jacquard loom is an example of an adaptation from a dobby loom. A Jacquard device mounted atop a loom will lift the individual heddles and warp threads. The individual heddles and warp threads can be controlled by a computer or a series of punched cards which select them to rise or fall. Power is usually supplied to the loom to move the many heddles involved.

Source: <http://www.cnaca.org/english/info/201253/4-20.shtml>

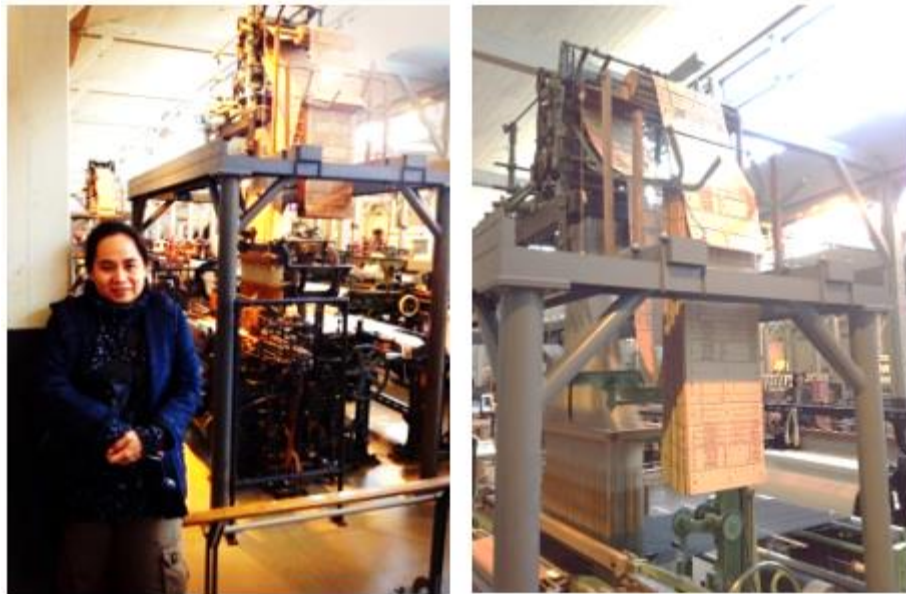


Figure 59: The models of Toyota the old Jacquard mechanical a power looms and punched cards with control.

Source: The researcher survey at Toyota Museum, Nagoya, Japan.



Figure 60: The machine models of Toyota the new air jet Jacquard mechanical looms.

Source: The researcher survey at Toyota Museum, Nagoya, Japan.



Figure 61: Jacquard Computer Design and Computer Jacquard Rapier Loom

Source: PASAYA (Textile Gallery Co. Ltd)



Figure 62: Jacquard woven design and weaves structure pattern
Pattern Design by the researcher at Satin Textiles Co., Ltd. (1991)

Sample weaves structure pattern from: *A Textile Terminology Warp & Weft*, Dorothy K. Burnham, 1980, by the Royal Ontario Museum. P33,34,38,39.

Circular looms

A circular loom is used to create a seamless tube of fabric for products such as hosiery, sacks, clothing, fabric hose (such as fire hose) and the like. Circular looms can be small or large high-speed machines for modern garments (Mini jacquard knitting machinery).

Modern circular looms use up to ten shuttles driven from below in a circular motion by electromagnets for the weft yarns, and cams to control the warp threads.

The warps rise and fall with each shuttle passage, unlike the common practice of lifting all of them at once.



Figure 63: In 1894, Sakichi Toyoda invented the developing a power loom highly efficient Toyoda winding machine. This was an epoch-making development. The Circular looms and a Shuttle curved for weaving the basic plain weave.

Source: The researcher survey at Toyota Museum, Nagoya, Japan



Figure 64: The Design motifs for curved weaving on the Circular Mini jacquard knitting machinery looms. Similar patterns of brocade woven they are difference in function working.

Source: https://en.wikibooks.org/wiki/Machine_Knitting/Print_version



Figure 65: The Design motifs for weaving on the ordinary looms. Similar patterns of brocade woven but they are difference in function working.

Source: NEPALESE TEXTILES, SUSI DUNSMORE, British Museum, London 1993, P. 118.

2.7 Review of Basic Knowledge of Pha Yok Dok

The important technique of all Brocade or Pha Yok Dok it is the interweaving for handloom, drawloom, frame loom used they are as highly skilled in comparison, a younger weaver used are not only creating their own patterns, but also modify those of the traditional changing certain sections, motifs, flowers, or borders and interchanging them with some of their own creations. Are of basic knowledge of Pha Yok Dok in a symbol on the surface of the cloth.

There are presently only a handful of weavers how draft patterns on paper before weaving and usually only because these have been especially which specially commissioned, or the drafted patterns have been given to the weavers to be followed or modified as required. Only when the planning and designing are complete can the weaver estimate the amount of white thread and coloured dyes required for dyeing the threads for a particular length of cloth.

Then getting to interweaving supplementary weaving is a decorative technique in which additional threads are woven into a textile to create an ornamental pattern in addition to the ground of pattern. The supplementary weave can be of the warp or of the weft. The Supplementary weave is commonly used in almost every country in Southeast Asia.

Generally, all Brocade or Pha Yok Dok a supplementary weft weaving of could be differentiated into continuous yarns for supplementary (khid) and discontinuous supplement (jok) in continuous supplementary, additional weft thread stretches from selvage to selvage, while in discontinuous technique, the thread is added only in selected areas. Not so commonly found, continuous supplementary warp weaving, so-called mook, dta mook or yok mook, can be used either alone or in combination with supplementary weft patterns.

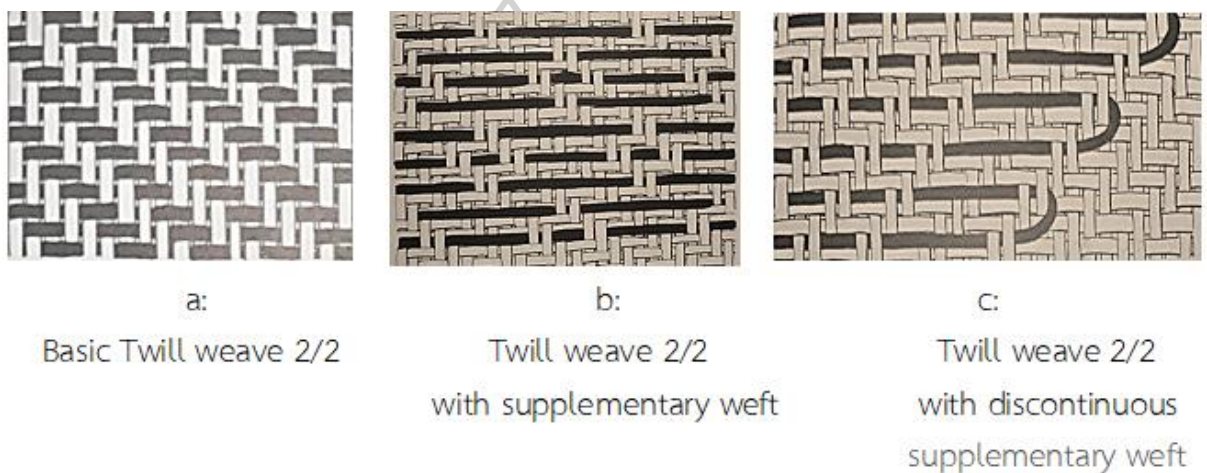


Figure 66: a, b: At the end borders of Brocade (Pha Yok Dok)

Figure 67: c: The method of using the supplementary weft (khid) and discontinuous supplement (jok) for the corner of the pattern.

Source: NEPALESE TEXTILES, SUSI DUNSMORE, British Museum, London 1993, P. 118,120.

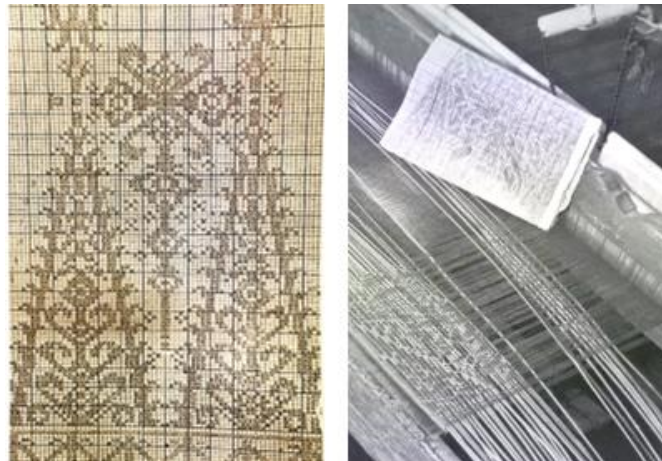


Figure 68: A pattern for Malay brocade drafted.

Source: *Songket, Malaysias woven treasure*. Selvanayagam, Grace Inpam, Singapore, 1933. P.22, P.40

The supplementary weft pattern is often taken right across the warp from selvage to selvage, weaving. By authorities and technique of songket pick out the complicated pattern of the design drawn on graph paper for weaving on a frame loom.

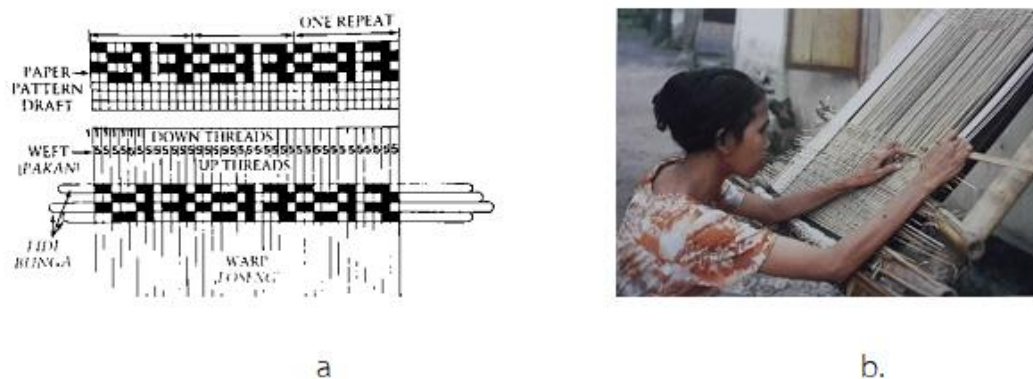


Figure 69: a. The method of transferring a paper pattern to the Loom using Lidi bunga (a bamboo stick) to count and pick out the pattern.

Source: *Songket, Malaysias woven treasure*. Selvanayagam, Grace Inpam, Singapore, 1933. P.22, P.39

Figure 70: b. A servant weaving a lau Pahudu for a noble woman in Rindi,

Source: *Through the Thread of Time Southeast Asian Textiles*, The James H.W. Thompson Foundation, River Books: 2004.P.47-55

The method of transferring a paper pattern to the Loom using Lidi bunga (a bamboo stick) to count and pick out the pattern. East Sumba, 1982. A servant weaving a lau Pahudu for a noble woman in Rindi, she is interlacing a lidi stick through the supplementary warp to program design on a body – tension loom. This technique, rarely seen in Indonesia, it is a string model. Photo Danielle Geirnaert.

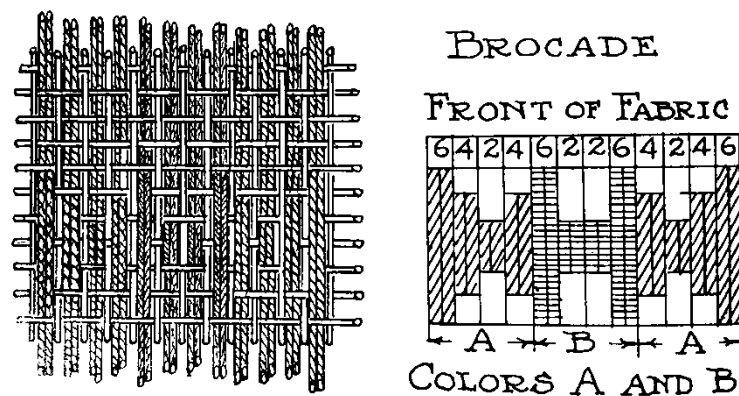


Figure 71: The weaving detail for this design element.

Source: Handicraft, SIMPLIFIED PROCEDURE AND PROJECTS, LESTER GRISWOLD, Colorado Springs, Colorado (1951). P.375,376

The weaving detail for this design element. A Variation of this brocade weaving is possible by warping the loom with widths of colored thread of the same or a different material. These threads are skipped in a border design as shows a single design, front, and reverse. As to weaving a detail for these designs more elements by the weavers making up.

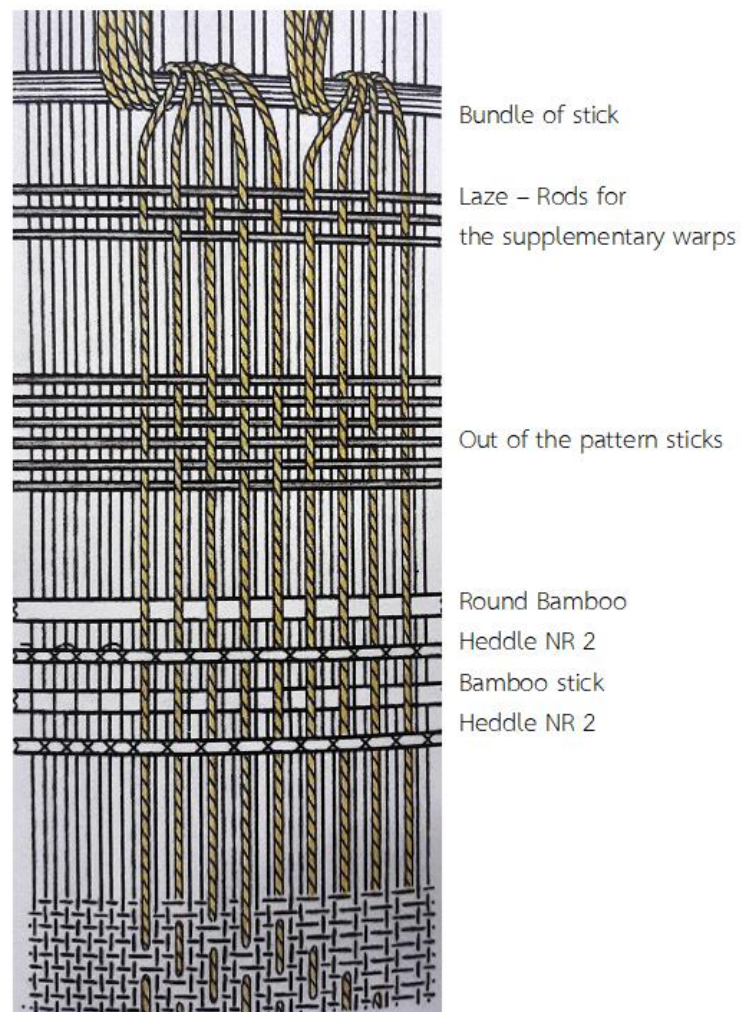


Figure 72: “Weaving a Sumba Women’s skirt”, Larmak and Mata in Balli and a Sumba loom.

Source: *Through the Thread of Time Southeast Asian Textiles*, The James H.W. Thompson Foundation, River Books: 2004.P.54-55.

This technical diagram was established by Rita Bolland and Pulished (1956) in Bolland Rita, “Weaving a Sumba Women’s skirt”, Larmak and Mata in Balli and a Sumba loom. Royal Tropical Institute, Amsterdam, Nr.CXIX Dept.of Cultural and Physical Anthropology Nr.53,1956,Pa49-57, diagram p. 50.It was drawn from the observation of a body tension loom acquired by Laurens Langewis 1934 from east Sumba for Museum of Rotterdam.



Figure 73: The brocade weaving from a pattern for Indonesia. brocade drafted by authorities and technique of songket pick out the complicated pattern of the design drawn on graph paper for weaving a string model on a frame loom.

Source: *Through the Thread of Time Southeast Asian Textiles*, The James H.W. Thompson Foundation, River Books: 2004.P.47-55



Figure 74: The triangular motifs the bamboo shoot and the cockerel's tail

Source: *TENUN HANDWOVEN TEXTILES OF INDONESIA*, CITA TENUN INDONESIA, 2010.P27.

The triangular motifs the bamboo shoot and the cockerel's tail feathers of the central decorative panel of the sarong have to be a consecutively repeated image in

the process of weaving. A rare textile dating to the early 20th century, this masterpiece has been wrapped around a bride's hips with the decorated end hanging down back, much like an Indian sari. These cloth ware made only in West Aceh and have not been made since the early 20th century. Gold supplementary weft on plain-weave silk base. 346 x 65cm. Collection of National Museum of Indonesia.

Tying the hand string loop (string model) leashes for Songket patterning

The next step in the making of songket fabric is to decorate it with gold and silver weft supplementary threads. There 2 -ply metallic weft threads are alternated between rows of plain tabby weaves and comprise long weft floats of a similar size. These weft floats pass on top of three, five or even seven consecutive warp threads, with only one or sometimes two warp threads holding them down. In Malaysian songket weaving, this technique is known as *tekat bunga* (embroidery with weft floats) and more specifically as

- *bunga tekat tiga* (motif or pattern (embroidery with three weft floats))
- *bunga tekat lima* (motif or pattern (embroidery with five weft floats))
- *bunga tekat tujuh* (motif or pattern (embroidery with seven weft floats))

This even arrangement of similar – sized weft floats gives a special visual characteristic to songket patterns. Because the 2 – ply gold threads are much thicker than the silk threads, the design stand out in bold relief. This step in the process of weavings songket is every row of gold weft supplementary thread introduced has a different pattern. Thus, every row has to be laboriously counted and the pattern picked out to be woven. Some patterns, like those on the body or centerfield of the sarong, the selvedge borders (*tepi kaki*), and the triangular motifs – the bamboo shoot and the cockerel's tail feathers (*pucuk rebung* and *lawi ayam*)-of the central decorative panel (*kepala*) of the sarong have to be consecutively repeated or warp mirror – image in the process of weaving. Since a lot of repetition along the warp is involved, a third set of heddles or string loop leashes (*ikat butang*), operable by hand, is introduced as a labor-saving device. These are made on the warp, behind the pair of heddles frames operated by the feet. These string loop hand leashes are

necessary to hasten the production of multiples of the same motif and identically patterned pieces of sarong and *sampling* on the same long warp.

Source: Songket, Malaysias woven treasure. Selvanayagam, Grace Inpam, Singapore,1933. P.22, P.39

Inspired the motifs design of fabric woven of Southeast Asia, in form triangle, it is a bamboo shoot. Which the meaning is the equivalent of Indonesia, Malaysia, Brunei, has been a story of the bamboo shoot is synonymous very deep philosophy meaning this reflects human life bamboo has many functions for the roof, wall, tools of cooking tools of fishing tools of weapon, tools of many traditional ceremonies. Until when we died last to use up close which the earth by bamboo too many values from bamboo like coconut or banana. We have many kinds of bamboo and some people have to believe spirit very rare. Kinds of bamboo have power and only special guys can keep it bamboo development of one direct to above some of the leave go to left and right alike human way but in one direction we can compare with Chinese chi and Japan deep symbol they also have great value about bamboo one time of life after that is dead substitution by the generation to generation.

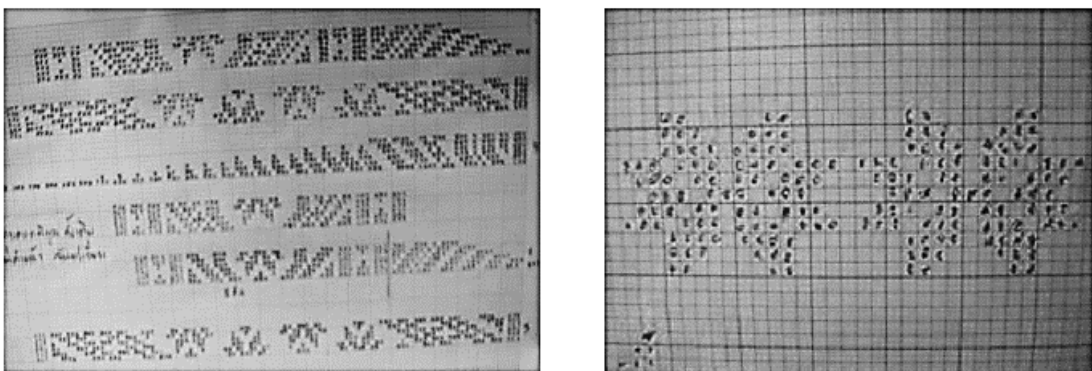


Figure 75: The technique of Pha Yok Lamphun weaving for drawloom

Source: Knowledge Management Wisdom of Lanna. Yok Dok Lamphoon (2016)

Tassawan Thimakom, Rattana Na Lamphoon, Songsak Phrangwattanakun Retrieved July 23,2016.

The Research Report "Pha Yok Dok Pikul Motif: A Study of History for Learning and Succession Community Participation in Lamphun Province "by Lamphun Provincial Cultural Office. This research has been funded by research. Office of the National Culture Commission Ministry of Culture.

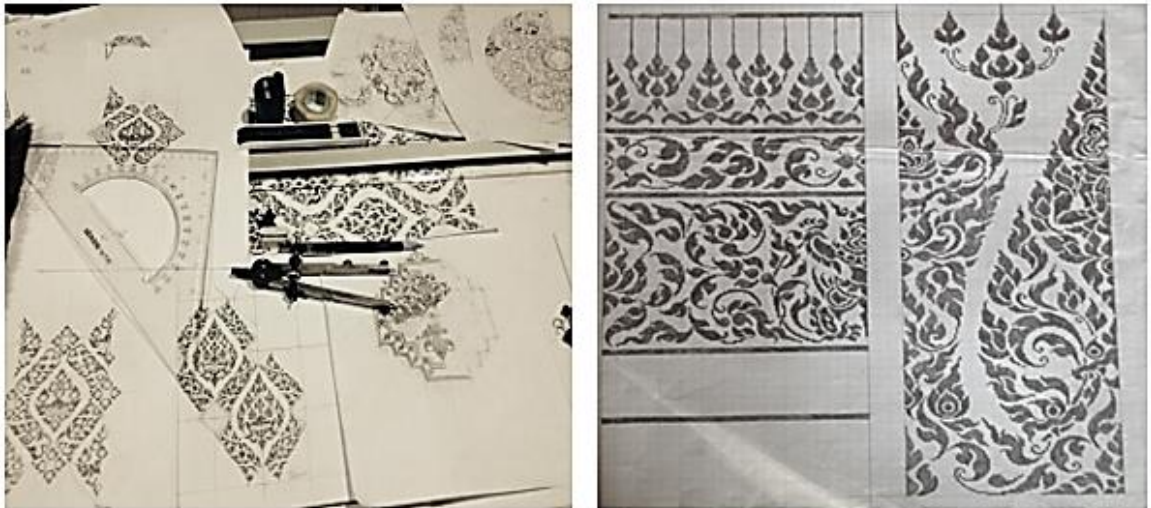


Figure 76: A process of the drawing a picture for weaving on paper before putting it on graph paper. Drawing by Dr. Weeratham Taragoonngernthai
The survey area Private Museum of Dr. Weeratham Taragoonngernthai.



Figure 77: In the time of participated interviews and get to know the process of creating a woven fabric Pha Yok Tong with Dr. Weeratham Taragoonngernthai and Mr. Nattawat Nithithongsakul Master Engineer Textile.

The survey area Private Museum of Dr. Weeratham Taragoonngernthai.



Figure 78: Details of weave, draft and denting should be drawn on point paper.

By Dr. Weeratham Taragoonngernthai

From Data of Dr. Weeratham Taragoonngernthai.



Figure 79: Inspired into study the design of Pha Yok Dok in Surin province the motifs from the painting of religious places “Wat Yai Suwannaram” Phetchaburi Province.

From Data of Dr. Weeratham Taragoonngernthai.

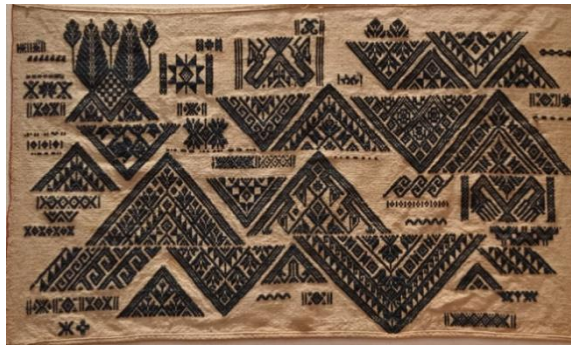


Figure 80: The sampler which is normally in white ground with indigo-dyed cotton and synthetic fiber to create the design discontinuous supplementary wefts. The pattern on the Pha Saew may differ from one household to another and considered a family heirloom.

Source: The survey area at Ban-pone, Pone Sub-district, Kammuang District, Kalasin Province. And the survey area in the exhibition of Thailand has shown event innovative fabric of the ASEAN region.



Figure 81: The sampler patterns of the fabric of the Phum Rieng by Mrs. Maaheam Huvanmukda

Source: https://www.qsds.go.th/silkcotton/k_10.php

Which is normally in white ground with indigo-dyed cotton and synthetic fiber to create the design discontinuous supplementary wefts. The motifs structure design of Pha Phumriang may differ from one household to another and considered a family heirloom. fabric pattern can be operated by opening and closing of the warp yarn on a draw frame. in, Surat Thani Province,



Figure 82: The rarely draft of songket patterns on a sampler before weaving usually they refer or follow for Malay frame loom (Kek) (Collection of Hajah Aishah binti Yusuf, Kuala Terengganu)

Source: Songket: Malaysias woven treasure. Selvanayagam, Grace Inpam, Singapore,1933. P.21



Figure 83: Inspired into study the design of Pha Yok Dok in class of Thai Art the motifs from the painting of religious places. A process of the drawing a picture for weaving on paper before putting it on graph paper by my students.

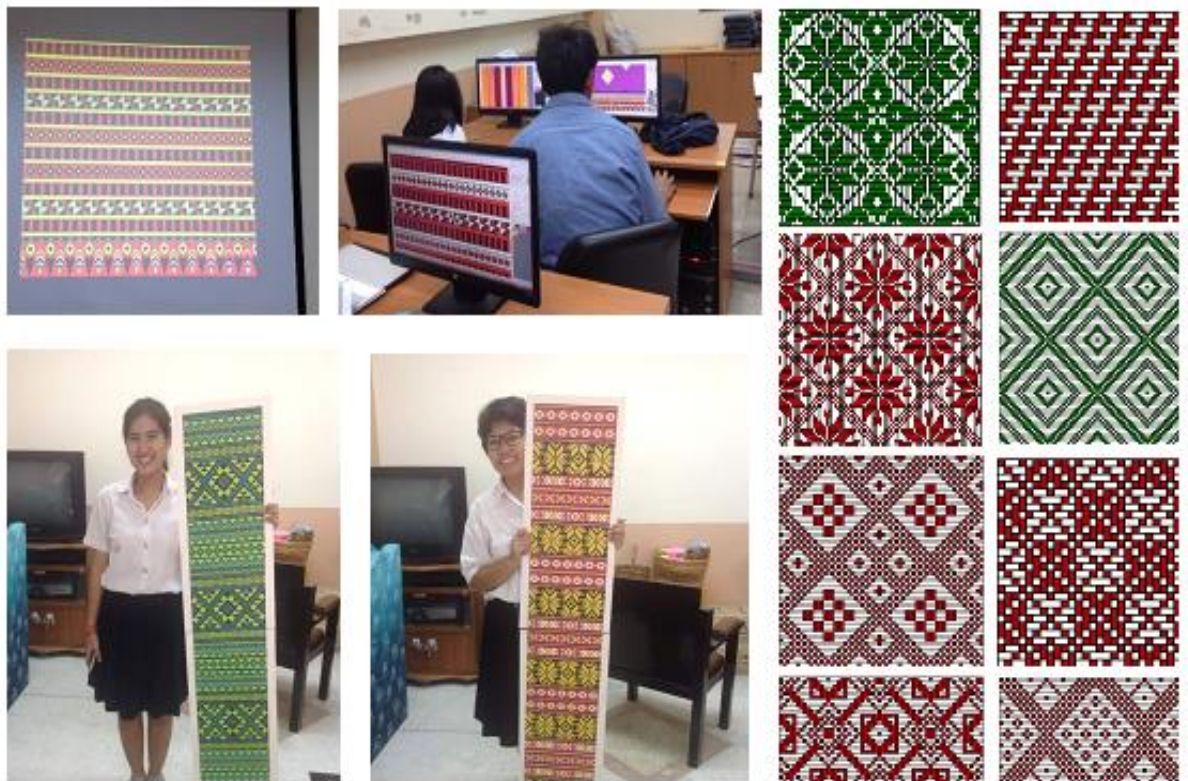
In class of study at Poh Chang Academy of Arts, Bangkok, Thailand.

Classroom research is taught by researchers. Design Patterns, Woven Fabric Patterns, and Techniques of Thai Fabrics. Choose complex patterns drawn on graph paper for weaving on a draw frame. In the course of the Design Thai textiles. To study by the weave structures and technique of weaving. The class of Thai Textile Arts from the fabric cloth of religious. To draft and design should be drawn on point paper to create the design. To weave supplementary wefts the thread by my students at Poh Chang Academy of Arts.



Figure 84: The weaving basic study the design and motifs of Pha Yok Dok .

In class of study at Poh Chang Academy of Arts, Bangkok, Thailand.



*Figure 85: The weaving basic program study the design in class of computer
In class of study at Poh Chang Academy of Arts, Bangkok, Thailand.*

Computer class for research is taught by researchers design the motifs from the fabric cloth of religious. To draft and denting should be drawn on pixel grid to create. The design weave a pixel graph for weaving on a software. In the course of the computer design for supplementary wefts on ends yarn by students. Design Patterns, Woven Fabric Patterns, and Techniques of Thai Fabrics. Choose complex to study by the weave structures and technique of weaving on program at Poh Chang Academy of Arts.



Figure 86: The weaving Dobby loom basic study of Pha Yok Dok in class of computer design.

In class of study at Poh Chang Academy of Arts, Bangkok, Thailand.

2.7.1 A History of pha yok dok weaving technique in the apparatus

Central Thai Textiles

Songsak Prangwatthannakun and Patricia Naenna, Central Thai Textiles, Thai life “Thai Textiles Thread of a Cultural Heritage, Center for the Promotion of Arts and Culture Chiang Mai University, October 1996. P.26.

The Central Region of Thailand covers the Chao Phraya River Basin area and extends from Prachuap Khiri Khan Province in the south to Nakhon Sawan Province in the north. Bangkok, the capital of Thailand, is situated in this area and is the seat of Royal House of Chakri which was established by the King Rama I at the commencement of the Ratanakosin period in 1782 A.D.

During the early reigns of the Royal House of Chakri, the difference between court and village textiles was extreme. The court imported their textiles from China, India, and Persia. Special textiles were also ordered from the various tributary states which were required to pay tribute to the Siamese monarch. These included Cambodia, Laos, Chiang Mai, Nakhon Si Thammarat and Pattani.

During the reigns of King Rama, I -IV (1782 – 1868 A.D.), various Tai groups were relocated from different areas into the Central Region. Among them were the Tai Yuan from Chiang Saen in upper Northern Region, and the Tai Phuan, Lao Khrang and Lao Song from northern and central Laos. These groups were settled in villages and continued their tradition of weaving techniques and patterns. However, apart

from the plain and checked cottons that still exist today, nothing is known of the types of textiles made by Siamese during that period.

During the reigns of King Rama V (1868 – 1910 A.D.), many important changes in social structures were made. Slavery was abolished and weaving, among other local industries and handicrafts, was developed. It was during this period that Cambodia was taken over by the French after having been under Siamese suzerainty since 1431 A.D. This, together with the growing importance of Britain and other colonizing powers in Asia, brought changes of influence from Indian/Khmer to Western standards in Law, education and dress. Trade between European countries and Thailand was given more freedom, bringing to the Thai market a great variety of western fabrics which were made available to the general public. The trade in all imported items was controlled by the King and was a source of high revenue.

In 1932 A.D., during the reign of King Rama VII (1925 – 1935 A.D.) the monarchy changed to constitutional monarchy. Development of textiles and western tastes accelerated with the new standards in dress set by Field Marshal P. Pibulsonggram between 1938 – 1944 A.D. Traditional costumes, which were regarded as uncivilized, were discouraged and western role models were adopted as a sign of civilization. This led to a decline in the use of traditional textiles in the central area and to the growth of an attitude that traditional textiles were outdated and were to be used only by the poor.

This attitude changed with the promotion of traditional Thai textiles by Her Majesty Queen Sirikit. Through her gracious patronage the weavers of Thailand can create their careful labours of love which are their national heritage and continue the traditions without scorn. The raising of social consciousness to the rescue of Thai textiles has resulted in a cultural revival in many villages which has in turn put an international focus on the history and roots of Thai culture.



Figure 87: Mural painting at Wat Phrachetuphon Wimon Mongkhalaram(Wat Pho),Bangkok, showing the different styles of dress worn by villagers in their daily life culture of the people namely the *chongkraben* style and the *thok khamen* style lower garments in the Central Region.

Source: From Thai life “Thai Textiles Thread of a Cultural Heritage, Center for the Promotion of Arts and Culture Chiang Mai University, October 1996. P.26.

Southern Thai Textiles

Songsak Prangwatthannakun and Patricia Naenna, Southern Thai Textiles, Thai life “Thai Textiles Thread of a Cultural Heritage, Center for the Promotion of Arts and Culture Chiang Mai University, October 1996. P.97

The southern part of Thailand is narrow peninsula extending from Chumphon Province on the east down the Gulf of Siam to the borders of Malaysia. On the west, the peninsula from Ranong Province stretches southwards along the coastline of the Andaman Sea also to the border of Malaysia Geographically the Southern peoples are greatly distanced from the capitals of Ayutthaya and later Bangkok. Prior to the British colonization of the Malay Sultanates, the states of Kedah (Sai Buri), Kelantan, Trengganu and Perlis were areas under Siamese suzerainty.

Because of its unique topography, the Southern Region has been the site of many major ports for trade with other countries. The art and culture found in the region today, particularly the culture of weaving, is thus predominantly a mixture of

Malay, Indonesian, Chinese, Indian and Persian influences, Pha yok the name used in the south for brocades, were probably introduced during the Ayutthaya period when skilled weavers were sent to the south to train the southern weavers to weave for the court. Indonesian master weavers in the south. Pha yok were woven mainly in the province of Nakhon Si Thammarat and were know by the name pha yok Muang Nakhon. It is believed that the design was introduced by villagers who were taken as prisoner during the revolution at Muang Sai Buri in 1891 A.D. Original pha yok Muang Nakhon came in a variety of different designs, each portraying its own unique characteristics and beauty. The design known as pha ta, for example, was woven with a decorative border on each end with gold and silver thread and was popularly worn by both men and women in the chongkraben style. This intricately and beautifully woven cloth was used only by nobility and officials of high rank. The governor of Nakhon Si Thammarat presented this textile as a tribute to His Majesty the King and officials in the capital.

The ancient "Pha yok" of Nakhon Si Thammarat is made of cotton or silk worn by the upper class of the region before extending its use to commoners. the making process is more or less similar to that of Khid or Jok but with unique local patterns. "Phum Riang" cloth of Surat Thani offers a choice of cotton and silk. However, the silk version or "Pha Mai Phum Riang" is more popular featuring the Yok Dok technique with vivid colors. In Trang province on the Andaman coast in the west, "Na Muen Si" woven fabric, mainly made of cotton, features and exotic heddle- finishing technique with supplementary warp.

Source: SACICT Living Thai throughout, Jan – Feb 2016. P.18.



Figure 88: Mural painting at Wat Matchimawas ,Songkhla Province, showing portrays the lifestyles of the people in Southern Thailand.

Source: From Thai life “Thai Textiles Thread of a Cultural Heritage, Center for the Promotion of Arts and Culture Chiang Mai University, October 1996. P.97

Northern Thai Textiles

The restoration and promotion of the fabric, which had been known for a long time in Lan Na, quoted the expert weaving sarong and trainer Tin jok weavers. The plant weaving behind her residence. A loom 20 after the family from Lamphun city to study weaving yok dok hip wrapped (pha nung). And can be trained in the capital for the Lamphun, and to expertise. It was passed down from generation to generation until now. The business of weaving has spread the different dressed garment. Precious cloth of the royal court of Burma the name of the fabric means interlocking tapestry weave fabric used in the shuttle to weave up to 100 shuttles.

Princess Dara Rasmi is the inventor of this fabric with the made up of two styles of cloth Lanna to made up of Pha sin made up of a Burmese luntaya Acheiq of the fabric page is actually to stitching for a piece of cloth with a bottom part of Tai yuan Teen jok technique in silk with gold - tinsel thread. A part to expressive not the central Thai style of Lanna residents. to the public and become a product of Chiang Mai and Lamphun section at the present.

Source: An illustrated book of Burmese Court Textiles “Luntaya acheiq” Hans Peter Ahrens, Punvasa Kunlabutr, Lampion, Amarin Printing and Publishing, Bangkok, P.6,45,47.



Figure 89: Princess Dara Rasmi and her various relative are worn Pha sin in the Tai yuan style.

Source: An illustrated book of Burmese Court Textiles “Luntaya acheiq” Hans Peter Ahrens, Punvasa Kunlabutr, Lampion, Amarin Printing and Publishing, Bangkok, P.6,45,47.



Figure 90: The process of the features and exotic heddle- finishing technique with the supplementary warp of Lamphun Province.

Source: The Research Report “Pha Yok Dok Pikul Motif: A Study of History for Learning and Succession Community Participation in Lamphun Province ”by Lamphun Provincial Cultural Office. This research has been funded by research. Office of the National Culture Commission Ministry of Culture

- Design the motif pattern cloth for court and religious.



Figure 91: The History Gallery of Thai Traditional clothes pattern above the Rattanakosin period also indicated the rank of the owner. The multi-level design was used for the member of the royal family and the high-ranking nobles, while the single-level one was used for the upper class or the wealthy persons.
Source: National Museum, Bangkok. the survey area.



Figure 92: Pha Yok Nakhon is more than 100 years old in the National Museum Nakhon Si Thammarat the motif pattern cloth for court and religious.
Source: http://www.tungsong.com/NakhonSri/manufacture/Textile/Textile_02.html



Figure 93: Pha Yok Nakhon

Source: National Museum, Bangkok. the survey area.

This fabric was imported from Nakhon Si Thammarat Province featuring remarkable Thai traditional pattern above the cone-shaped border. This cone-shaped border also indicated the rank of the owner. The multi-level cone-shaped design were used for the member of the royal family and the high-ranking nobles, while the single-level one was used for the upper class or the wealthy persons.



Figure 94: Brocade with King Chulalongkorn's initial. Silk fabric brocade

,chrysanthemum and vine patterns with metallic thread. This fabric was probably used to make into a cloth for a Royal charity.

Source: National Museum, Bangkok. the survey area.



Figure 95: Pha Yok Thong from Roi - Et province the motif pattern cloth for court and religious by Mrs. Phayom Sirawat National Artist of Visual Arts.

Source: Fabric is life, books, collections, history and works of Phayom Sirawat National Artist of Visual Arts. (Fabric Art) BE .2530.

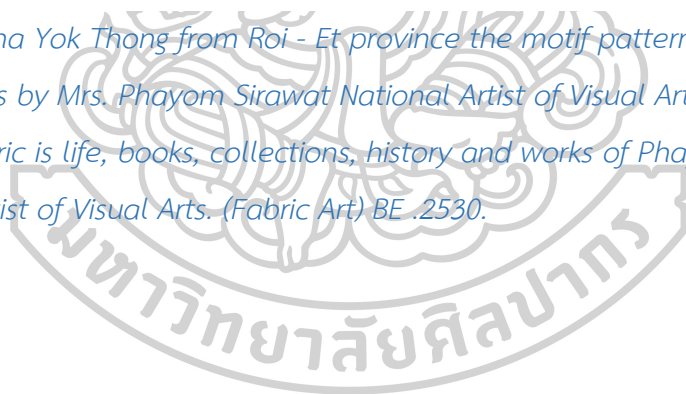




Figure 96a: HM Queen Debrindira(1834 – 1861),

Source: In Royal Fashion "THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND", Bangkok, Queen Sirikit Museum of textiles,2013. P.21

Her Majesty Queen Debrindira wife of His Majesty King Rama IV wearing the typical dress of the Thai court prior to Westernisation, gold brocade hip wrapped (phaa nung) and gold brocade shoulder cloth (sabai)

Figure 97b: HM Queen Sri Savarindira(Savang Vadhana,1862 – 1955),ca.1875.

Source: In Royal Fashion" THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND, Bangkok, Queen Sirikit Museum of textiles,2013. P.21.

The present King Rama IX's grandmother wearing formal court dress: front – pleated, gold brocade hip wrapped (phaa nung) gold brocade jacket with applied Western – stlye trim at the cuffs; and embroidered shoulder cloth (saphak).

Figure 98c: HM Queen Sri Savarindira(Savang Vadhana,1862 – 1955),late1880s.

The grandmother of HM King Rama IX wears an elaborate lace – and ribbon – trimmed bodice and while a brocade Thai wrapped chong kraben,a style of which she was particularly fond. Source: In Royal Fashion" THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND, Bangkok, Queen Sirikit Museum of textiles,2013. P.19



a:

b:

Figure 99a: HM Queen Sri Bajarindra (Saovabha Phongsri,1864 – 1919),mid.1890.

Source: In Royal Fashion “THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND”, Bangkok, Queen Sirikit Museum of textiles,2013. P.22.

A moire' ribbon denoting rank has been added to the familiar components of formal court dress seen in wearing formal court dress: front – pleated, gold brocade hip wrapped (phaa nung) gold brocade jacket with applied Western.

Figure 100b: HM Queen Sri Bajarindra (Saovabha Phongsri,1864 – 1919),ca.1895.

Source: In Royal Fashion “THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND”, Bangkok, Queen Sirikit Museum of textiles,2013. P.20.

The leg – of – mutton – sleeves on her bodice were the height of Western fashion at the time. The king's library, fully stocked with European and American books and journals, may have allowed the women of the court to keep up with the latest trends in Western fashion and while a brocade Thai wrapped chong kraben.

In a sleek, The Clothing to fashionable was at least an acceptable option for women of the Thai court and she was growing Thai urban middle class were also beginning to adopt Western fashions, following the lead of court and the extended royal family and spurred, perhaps, by the availability of information through periodicals.



a.



b.

Figure 101a: Princess Dara Rasmi (1871 - 1919)

Source: *Silken Threads Lacquer Thrones Lan Na Court Textiles.*, Susan Conway, River Books Co., Ltd, Bangkok, Thailand, 2002. P.130.

Figure 102b: Princess Dara Rasmi from Chiang Mai at the Bangkok Court.

Source: Chiang Mai National Museum.



a.

b.

Figure 103a: Her Majesty Queen Rambhai Barni (1904- 1984), wife of His Majesty King Rama VII (reigned 1925 – 1935)

Source: In Royal Fashion “THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND”, Bangkok, Queen Sirikit Museum of textiles, 2013. P.34.

Figure 104b: HER MAJESTY QUEEN SIRIKIT is wearing the Thai Chakri style of national dress, has been the creation of the SUPPORT Foundation (originally the Foundation for the Promotion of Supplementary Occupations and Related Techniques), established in 1976.

Source: Mother's Day, 2015. Web Master; http://nwnt.prd.go.th/royal_Queen_58/index.php

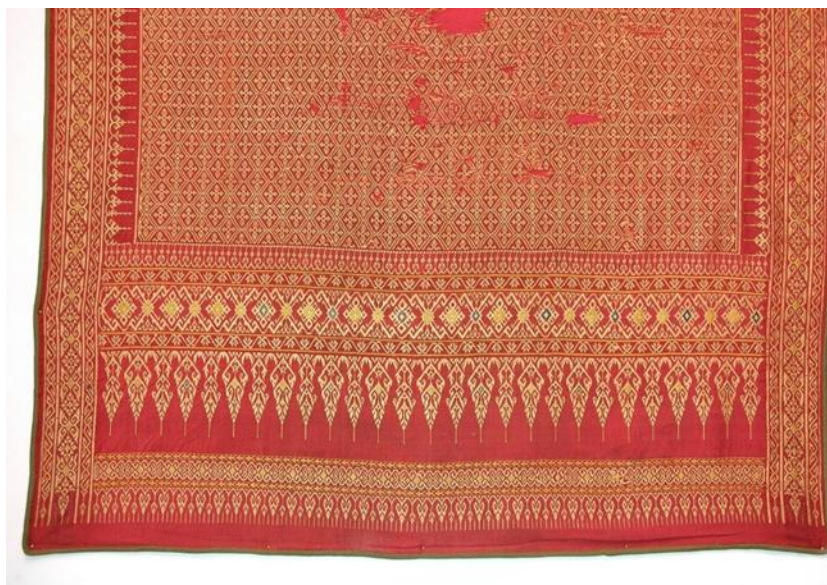


Figure 105: Brocade with free designs, weavers freely created the designs with supplementary weft technique was generally use in certain areas or the whole length of colth. Brocade with both supplementary weft and warp are rarely found.
Source: National Museum, Bangkok, the survey area.



Figure 106: Silk and Gold Thread Hip Wrapper for Royalty Gift from King Chulalongkorn to the Smithsonian Institution, 1876

Source: Great and Good Friends, Historic Gifts between the Kingdom of Thailand and the United States of America, Trevor Merrion and William Bradford Smith, International Cultural Promotions Limited, Bangkok, 1818 - 2018. P.29.

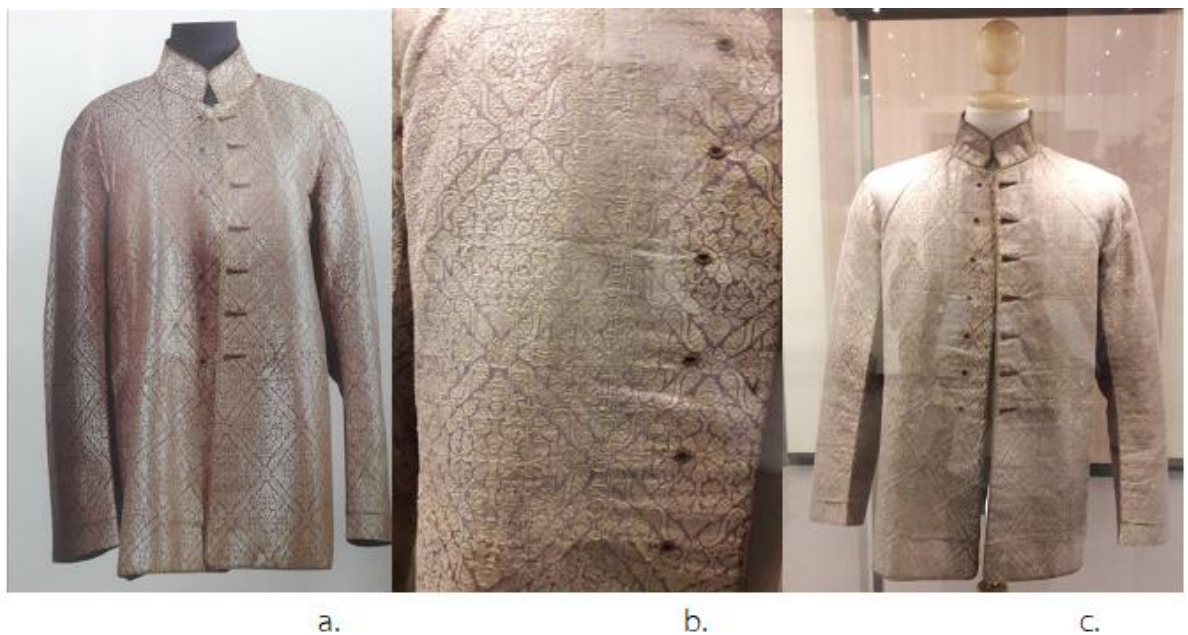


Figure 107: a, b, c; A formal shirt (*sua*) of purple silk and silver metal thread brocade. The repeat floral patterns are set within diamond shapes import from India.

Source.a: *Silken Threads Lacquer Thrones Lan Na Court Textiles.*, Susan Conway, River Books Co., Ltd, Bangkok, Thailand,2002. P.142.

Source.b, c: Changmai National Museum the survey area.

The Creation of Fabrics National Dress in Thailand.

Thailand: Princess Dara Rasmi daughter of King Inthawichayanon and Queen Thipkraisorn Rajadevi of Chiang Mai descended from the Chet Ton Dynasty. She was one of the princess consorts of Chulalongkorn, King Rama V of Siam and gave birth to one daughter by King Chulalongkorn, Princess Vimolnaka Nabisi. The ruler of Chiang Mai mostly wore a hip wrapped (*phaa nung*). He put on the effort to invent new patterns, fabricated by weaving an intern in the house to give a master class for adults, and it is part of Lamphun.

Princess Dara Rasmi can be in the dress they chose to wear for local ceremonies. Meanwhile, female members of the Royal Family continued to wear the

dress of their homelands and their conservatism was to have interesting consequences at the Bangkok court. While the multi-level design was used for the member of the royal family and the high-ranking nobles, while the single-level one was used for the upper class or the wealthy persons of the palace. Princess Dara Rasmi and her various relative. The women are wearing hybrid Pha sin in the Tai yuan different dressed garment. Of course, not ordinary plain a Pha sin made up of a Burmese Luntaya acheiq body attached to a bottom part of Tai yuan Tin jok technique in silk with gold - tinsel thread.

Precious cloth of the royal court of Burma the name of the fabric means interlocking tapestry weave fabric used in the shuttle to weave up to 100 shuttles. Princess Dara Rasmi is the inventor of this fabric along with the made up of two styles of cloth Lanna. On the mind of the Prince with the governors. Have not a part to express the central Thai style of Bangkok residents. The difference in this way can be interpreted in many ways. In other words, it denies the centrality of power by failing to follow the map of others. Or do not do what others do in general. The unique character of Lan Na culture, so different from that of coastal Southeast Asia, is reflected in the textiles and dress of its 19th-century courts and was developed through the integration of local cultures and societies. In the court indigenous silk and cotton, Chinese silk, Burmese and Shan fabrics, rich embroideries and sumptuous trimming, were used to create ceremonial court dress. Princess Suonboon, the daughter of the ruler of Lamphun, inherited the knowledge of woven mantles from Princess Dara Rasmi in Chiang Mai.



Figure 108: The cotton woven by the initiation of Princess Dara Rasmi' court a Thai for hip wrapped (pha nung) at Lamphun province

Source: "Patterns and Colors on Local Woven Fabric", a project to develop fabrics and native textiles throughout the country for the promotion of production and export. Silpakorn University, Bangkok, 2000. P.199.



a:

b:

Figure 109: a: A late 19th century design of continuous supplementary weft Design which combines Lao and Bangkok styles. The design includes the flame(kranok) pattern, stylized flowers and pendants. (Chao Dararatana Na Lamphun)

Figure 110: b: A late 19th century design of continuous supplementary weft that is a fusion of Lan Na and Bangkok style. (Darabhirom Museum, Chang Mai)

Source: *Silken Threads Lacquer Thrones Lan Na Court Textiles.*, Susan Conway, River Books Co., Ltd, Bangkok, Thailand, 2002. P.184-185.



Figure 111: An elaborate lace blouses and a rose color and golden silk thread brocade skirt. The repeat motif patterns are set within diamond shapes(Pha Yok Dok Lamphun) of Her Majesty Queen Rambhai Barni. (1904– 1984)

Source: King Prajadhipok Museum, Bangkok. the survey area

The examples of Thai brocade still owned by the royal family and reviewed by this the research were beautiful but, for the most part, too fragile to use. And researcher had been acknowledging therefore, Her Majesty commissioned new brocade design based on older examples. (The project is supported and promoted by the Bureau of the Royal House Hold and Her Majesty the Queen's Foundation.) Which there are all Her Majesty's Queen Sirikit new dresses distinctive were the all fabrics from the Thai weavers they were made.

In the past, on formal occasions, high-ranking members of the court had worn imported gold-patterned silk brocades. During the early Rattanakosin period (1782-1851) weaving centers in Nakhon Si Thammarat, Surat Thani, and Songkhla provinces in the South also produced metallic brocade for the Bangkok court. In the second haft of the 19th century, King Rama V established a brocade weaving center in Lamphun province, northern Thailand.

Which also supplied the court. There was brocade woven in Lamphun, at the time one of the last silks and metal-thread brocade weaving center remaining in

Thailand. Pha Yok Dok began at the period of the was a princess of Chiang Mai, Siam (later northern Thailand)

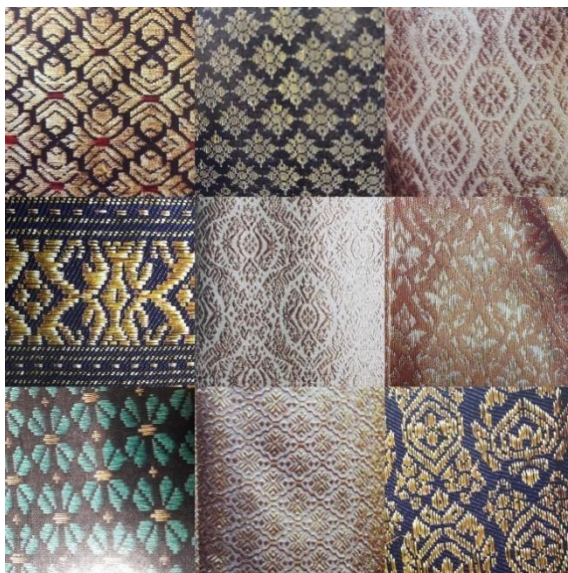


Figure 112: The style of Her Majesty Queen Sirikit of Thailand and Queen Sirikit Museum of textiles.

Source: In "Royal Fashion" THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND, Bangkok, Queen Sirikit Museum of textiles, 2013.



Figure 113: Thai Siwalai, 1968 Nai Noi, Bangkok, Thai silk and metal- thread brocade (pha yok): Collection of Her Majesty Queen Sirikit QSMT2010.1.7

Source: In Royal Fashion” THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND, Bangkok, Queen Sirikit Museum of textiles, 2013. P.68-71.



Figure 114: Thai Boromphiman, ca. 1965 Nai Noi, Bangkok, Bodice of Thai silk; attached skirt of Thai silk and metal- thread brocade (pha yok) Collection of Her Majesty Queen Sirikit QSMT2010.38.12

Source: In Royal Fashion” THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND, Bangkok, Queen Sirikit Museum of textiles, 2013. P.130 -131.



Figure 115: Thai Siwalai, 1960. Attr. to Urai Lueumrung, Bangkok. Bodice of silk and metal thread; attached skirt of Thai silk and metal- thread brocade (pha yok)
Collection of Her Majesty Queen Sirikit QSMT2011.1.25

Source: In *Royal Fashion* "THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND, Bangkok, Queen Sirikit Museum of textiles, 2013. P.156-157.



Figure 116: Thai Chaki, 1967. Pierre Balmain, Paris. Dress and attached shoulder cloth of Thai silk and metal- thread brocade (pha yok): bead and rhinestone, and metal- thread embroidery by House of Lesage, Paris. Collection of Her Majesty Queen Sirikit QSMT2010.38.6

Source: In *Royal Fashion* "THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND, Bangkok, Queen Sirikit Museum of textiles, 2013. P.172-175.

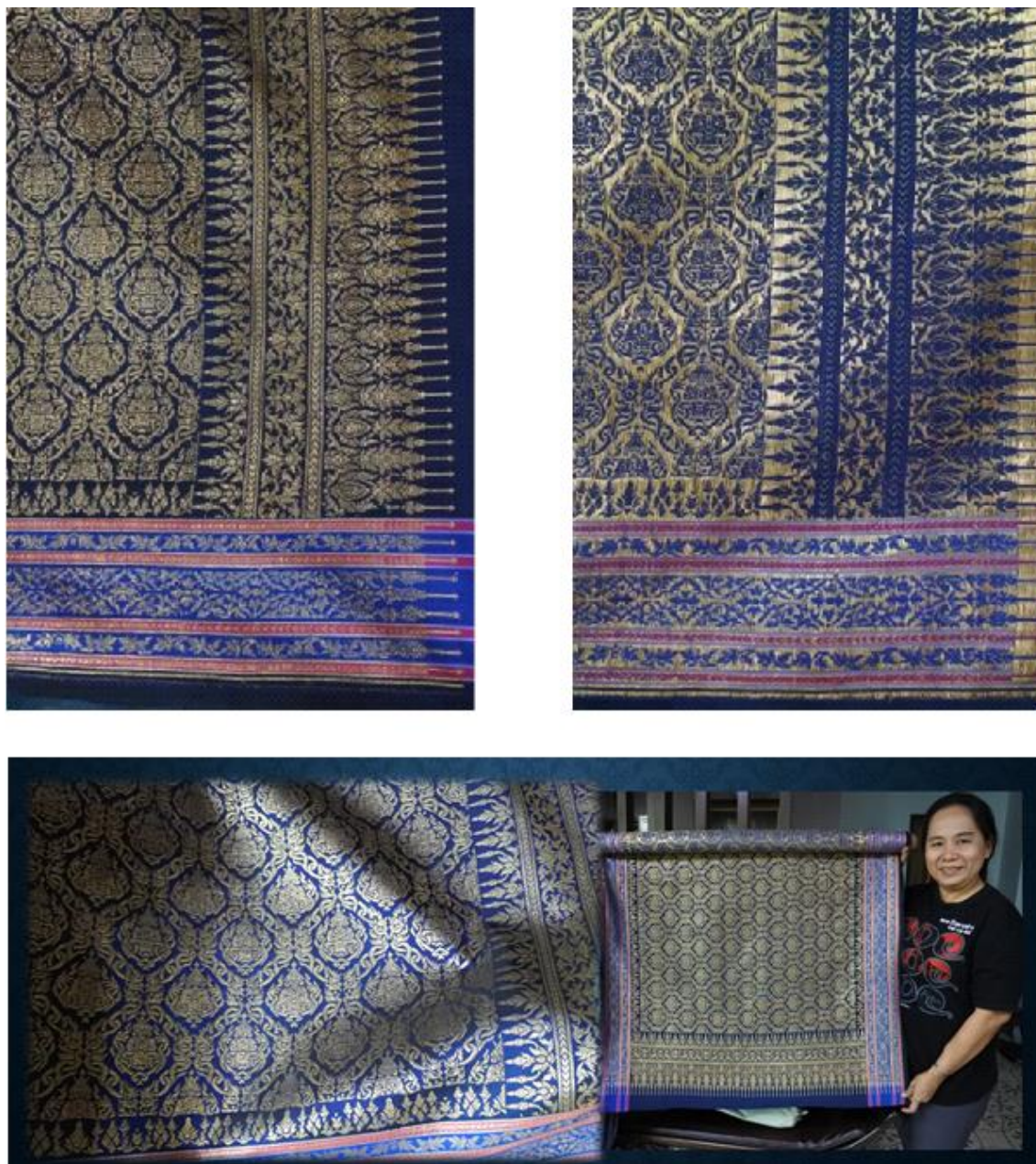


Figure 117: Pha Yok Thong from Roi - Et province, the garment in court Royal The golden fabric is located at the Village, Amphoe Mueang, Roi – Et Province.

Source: Private Museum of Mrs. Payom Sinawat was honored to be a national artist. Visual Arts (Art of Fabric), BE 2530

- Design the motif pattern cloth to make for ordinary people.



Figure 118: The uniform of Thai Airways International Public Co., Ltd

To be fashion in events and business organization

Source: From the survey area in event at Rattanakosin Exhibition Hall, Bangkok, Thailand.

“The Exquisite textiles of Siam”, August ,10,2018.



Figure 119: Now a day of Pha Yok Dok from Surin province.

Source: Data of Dr. Weeratham Taragoonngernthai

The golden fabric is located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province. To be fashion in events and business organization the clothing to fashionable was at least an acceptable option for women from the Thai court and they were growing Thai urban middle class were also beginning to adopt Western fashions, following the lead of court and the extended just modern and spurred, by social online the availability of information through periodicals or magazine.



Figure 120: This weaving project is silk was selected as the fabric to produce shirts and shawl for all country leaders and wife in the APEC Meeting in the year 2003.

Source: Private Museum of Dr. Weeratham Taragoonngernthai.



Figure 121: The dress of the female governor in the palace of Siam.

Source: Private Museum of Dr. Weeratham Taragoonngernthai.



Front

Back

Figure 122: Pha Yok Dok in Surin province. The golden fabric is located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province.

Source: The analysis and synthesis one-piece fabric for the structure of weaving on a frame loom.



Figure 123: Pha Yok Dok in Surin province. The golden fabric is located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province.

Source: The analysis and synthesis one-piece fabric for the structure of weaving on a frame loom.

2.7.2 The Weaving apparatus special (string model) attention to technical details.

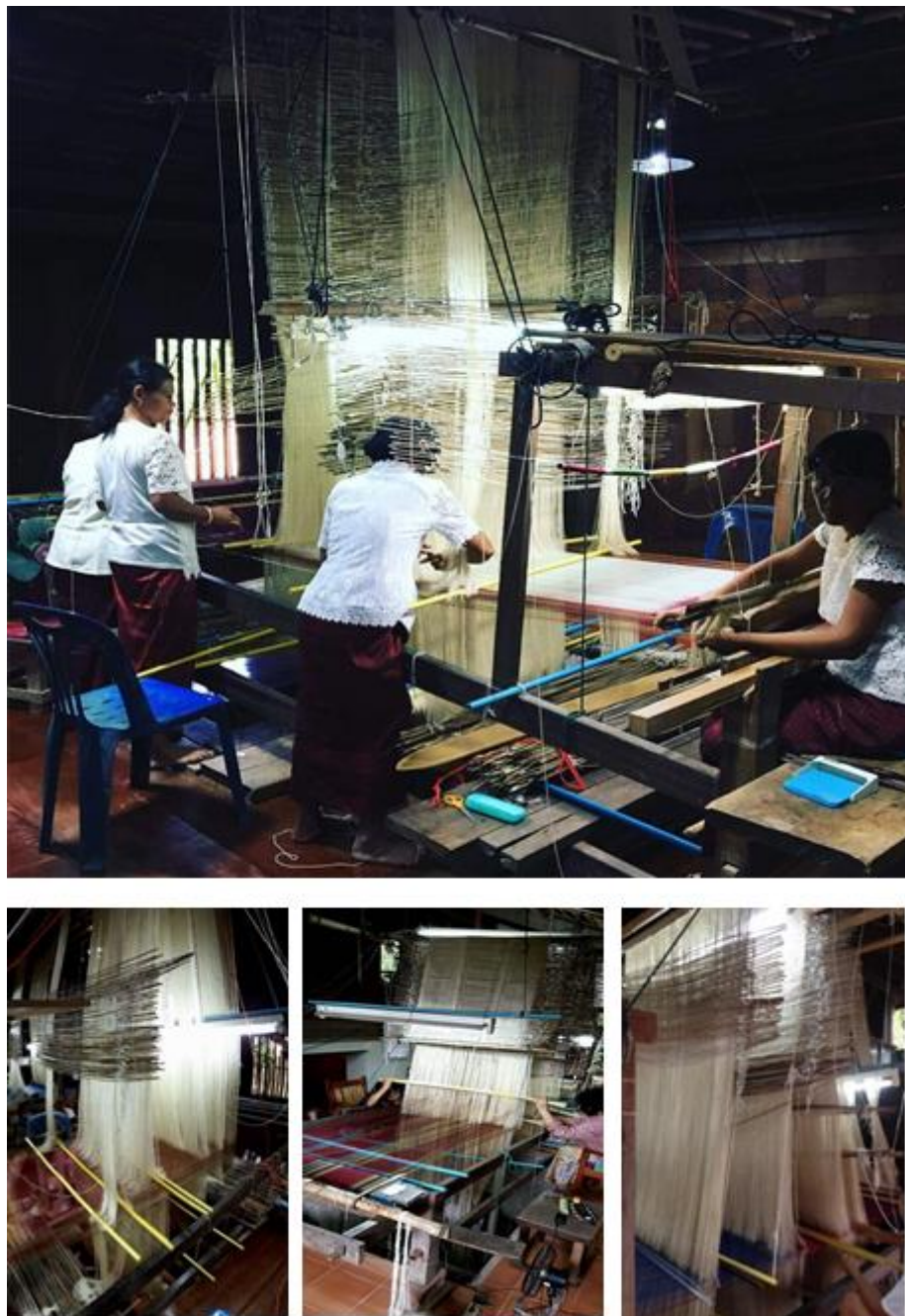


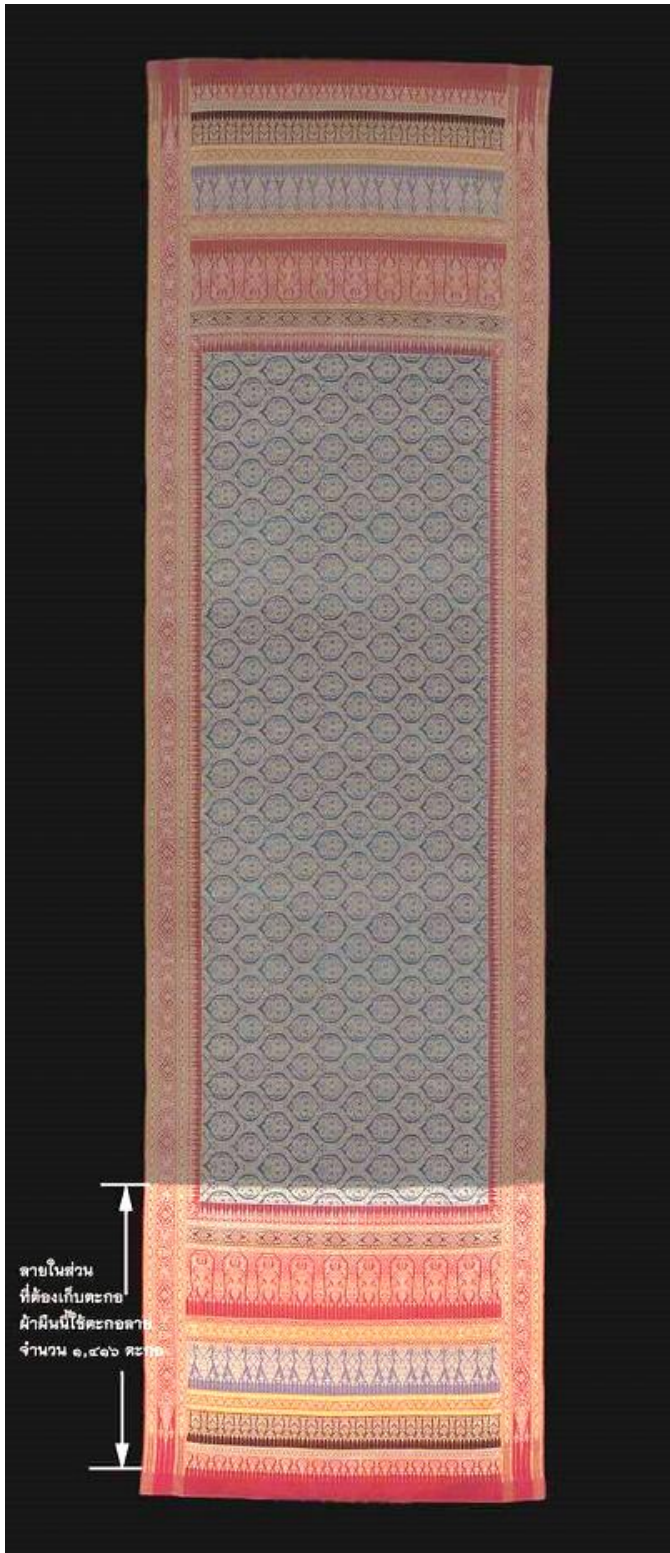
Figure 124: On loom of Pha Yok Dok in Surin province. The located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province.

Source: The analysis and synthesis one-piece fabric for the structure of weaving on a frame loom.



Figure 125: Pha Yok Dok in Surin province had been the making process is more or less similar to that of Khid or Jok, but with unique local patterns of the golden fabric is located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province.

Source.: From the survey area



In the picture is silk, raised gold, patterned Garuda Yud Naga Natural dyeing size 100x330 cm.

The brightest part is the pattern that must be collected. The number of 1416 wood. When weaving, it will get about 70 cm long. The dark color is the part called the wood - Heddle / Hook / Harness/shaft: Repeat the pattern. to obtain the desired length fabric.

Figure 126: The dress of the female governor in the palace of Siam.

Source: Data of Dr. Weeratham Taragoonngemthai.



Figure 127: The overview of weaving apparatus (string model) and the weaver of Pha Yok Thong in Roi - Et province, the garment in court Royal The golden fabric is located at the Village, Amphoe Mueang, Roi - Et province.

Source: From the survey area by the weaver of Mrs. Payom Sinawat was honored to be a national artist. Visual Arts (Art of Fabric), BE 2530

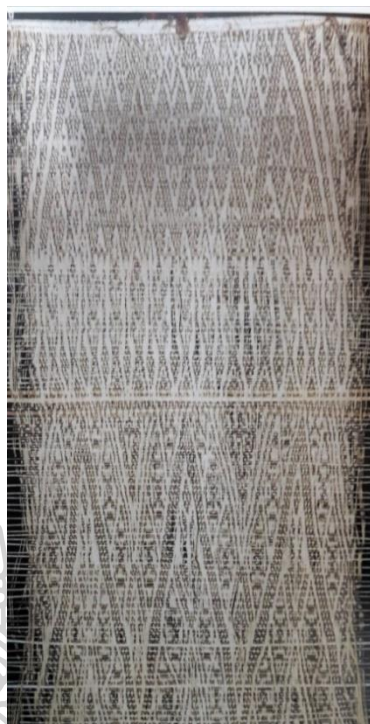


Figure 128: The overview of weaving apparatus (string model) for the shoulder cloth (sabai) on silk brocade called Pa Prae-wa.

Source: Native woven fabrics in the northeast Native cloth development projects in all provinces of the country Silpakom University, Bangkok, 2000. P.23.



Figure 129: The overview of weaving apparatus (string model) of Laos.

Source: Studies in the Material Cultures of Southeast Asia No.19, Series Editor: Michael C. Howard, "Spirits in the loom" Religion and Design in Lao – Tai Textiles by Ellison Banks Fin dly, 2014, Bangkok, Thailand. P.71.



Figure 130: The overview of weaving apparatus of Pha Yok Thong in Surat Thani Province on silk brocade called Pha Mai Phum Riang. It is difference form of drawloom in Surin Province or the weaving apparatus (string model) all Isan area, but it similar Lamphun Province.

Source: https://www.qsds.go.th/silkcotton/k_10.php



Figure 131: The overview of Malay loom and the weaving apparatus of Songket

Source: Songket: Malaysias woven treasure. Selvanayagam, Grace Inpam, Singapore, 1933. P.43

In the process of the thick cotton thread is passed through the shed and the warp threads are looped individually around the heddle shoe to form string heddle. Each of the three bunches of hand leash repeats is connected by one string to facilitate simultaneous lifting (Pusat Kemajuan Kraftangan Malaysia. Kuala Terengganu,1977).



a.



b.

Figure 132a: Workshop weaving of fine saris, using semi-automized Jacquard Looms.

Figure 2.114 b: Stole brocaded with gold and silken thread from Varanasi.

Source: INDIAN TEXTILES, John Gillow, Nicolas Barnard, Traditional Textiles by Thames & Hudson Ltd, United Kingdom, London (1991) First paperback edition 2014. P.162,163.



a.

b.

Figure 133a: This photo shows a weaver using the back – strap or body tension loom.

Figure 2.115 b: A very rare photograph taken in 1900 of an Acehnese woman weaving a songket on a discontinuous warp on a back – strap loom

Source: TENUN HANDWOVEN TEXTILES OF INDONESIA, CITA TENUN INDONESIA, 2010.P27.

This is the oldest form the loom and is still used throughout the archipelago, although many weaves are now using treadle and flying – shuttle looms for convenience and speed. Next to her is the yarn winder on which she would have prepared the threads.

- **design the motif pattern cloth to make for ordinary people.**

This is the apparatus to use for the same kind of fabric in the process of weaving a brocade or Yok Dok cloth. They are the different name called in operation but the outcome will be amenable together.

Asian called: Yok Dok: Thai
 Sompot rbauk: Cambodia
 Songket /Sungkit:Indonesia/Malaysia/ Brunei
 Nanjing Yunjin: China
 Nishijin: Japan,

European called: Jacquard: France,
 Dobby: France
 Brocade/Brocattelle: Italy
 Damask /Damascus: Syria

Yok Dok: Thai

Dr. Weeratham Taragoonngernthai (2017) The story of Chan Soma "The gold silk weaving group One thousand and four hundred and sixteen thousand. "There are many, many of you want to know why" one thousand four hundred and sixteen - Heddle / Hook /Harness/shaft: today, to tell you why to does than more- Heddle / Hook /Harness/shaft: Because there was a gold cloth of the Chan Soma group Classified as a fabric type "cloth arena", belly cloth, motifs lantern in Garuda Yak Naga. Or known as the cloth, became Garuda Yak Naga This fabric, when finished woven. With a width of about 100 cm, standard length 320-350 cm This striped fabric is designed to store - Heddle / Hook /Harness/shaft: first patterned and woven about 15-16 years ago.

The part that needs to be collected is a cone set consisting of a flanked male motif, a cone of four layers, a bouquet of belly stabs. The split-Heddle / Hook / Harness / shaft: another set. All of these stripes use up to 1416 wood, which has the largest number of things that we do. If the weaving is continuous non-stop, not to a repeat used gold wefts thread the wood twice switch, alternating the silk, the normal streaking, the smallest. Will get about 70 cm fabric length. Next is turning to repeat of wood - Heddle / Hook /Harness/shaft: of the fabric pattern repeats. The end of the fabric to call the wood - Heddle / Hook /Harness/shaft: The cone set comes back again. Until the full fabric length is about 320-350 cm. When wearing both pleated and hang storage. Therefore, the whole piece of wood - Heddle / Hook /Harness/shaft: all 1416 patterns Therefore there is a name given that "Pha Yok Thong Chan Soma Silk One thousand four hundred and sixteen Heddle / Hook /Harness/shaft " But suppose we want to weave a long, weaving cloth. I.e., this size is 350 cm long from the beginning to the end. No repeat. Unique pattern. Wood -

Heddle / Hook /Harness/shaft: until the whole piece, we may have to collect the pattern. About 5000-6000 wood ever.



Figure 134: Yok Dok: Thai.

Source: The overview of weaving apparatus (string model) The golden fabric is located at the survey area Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province.

This cloth traditionally commands soaring prices due to the special weaving technique, as it is thickened so that each piece becomes double-sided. The edge of the cloth is traditionally sewn only with silk thread. Pha Yok Dok clothes were a luxury item worn by wealthy ladies or those who knew how to weave their own cloth and only for special occasions.

Yok Dok: Thai



Figure 135a.: Prae Wa, Phu Tai people: Kalasin Province, Prae Wa is a cotton or silk shoulder cloth of approximately one wa length (about 2 meters).

Source: From the survey area in the exhibition of Thailand has shown event innovative fabric of the ASEAN region.

It is sometimes referred to as Pha Sai or Pha Biang. This Prae Wa is entirely adorned with discontinuous supplementary weft of dark green, deep yellow, blue and white on structural dark red ground. The prae wa is known for its painstaking process in the making. The weavers must masterly pick out the supplementary weft only with their pinky finger to create patterns on the textile which is time consuming task and relies heavily on skill and precision to deal with the tiny silk threads.

Yok Dok: Thai



Figure 136: Now a day of Pha Yok Dok from Khampun Museum. The golden fabric is located at the Warin Chamrap, Ubon Ratchani Province, Thailand. To be fashion in events and business organization

Source: From the survey area and Living Thai, SACICT, April,02/2016.

P.16,30,31,32,33,34,35,36,37,38,39,40,41

Sompot rbauk: Cambodia



Figure 137: Sompot rbauk hipwrapper .297 x 97 cm. Late 19th century. Silk, wrap-face satin weave. Pattern with continuous supplementary weft weaving using metal-wrapped yarn. (photograph Chandra Lamont)

Source: *Traditional Textiles of Cambodia, Culture Threads and Material Heritage*, Gillian Green, River Books Co., Ltd.2003. P.91.



Figure 138: Sompot rbauk hipwrapper .316 x 89 cm. Late 19th century.

Source: *Traditional Textiles of Cambodia, Culture Threads and Material Heritage*, Gillian Green, River Books Co., Ltd.2003. P.9

Cambodia Silk, plain ground weave patterned with continuous supplementary weft weave using metal- wrapped yarns. Plain ground weave. Purple reeled silk thread warp, blue spun silk yarn weft. Continuous supplementary weft weaving using a thread of a gold – colored metallic strip wound round and undyed spun silk core. Probably sourced in India. (photograph Darren Campbell)

Songket /Sungkit: Indonesia/Malaysia/ Brunei Indonesia



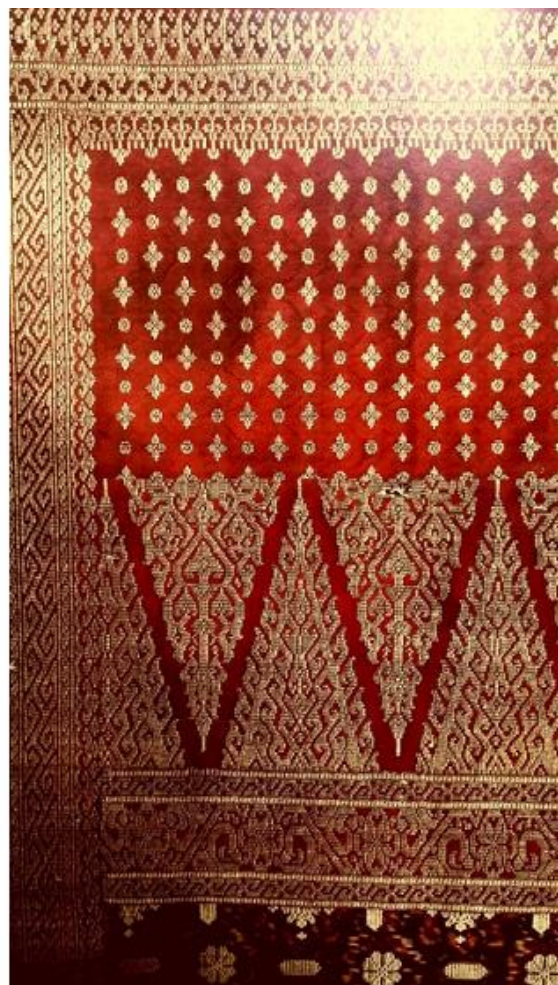
Figure 139: Kain Songket, Palembang, South Sumatra province: Indonesia This songket wrapper carries brocade eight point- petaled flower motifs alternated by tampok manggis, or mangosteen calyx motifs in the central part framed by bands of point -petaled flowers on all sides.

Source: From the survey area in the exhibition of Thailand has shown event innovative fabric of the ASEAN region.

Malaysia



a.



b.

Figure 140a: The Design of Songket from Malaysia in structure of a sarong. (Collection of Muzium Negara, Kuala Lumpur)

Figure 141b: The Design of Songket from Malaysia in structure of tradition Kain paning. (Collection of Tengku Su, Kuala Terengganu)

Source: Songket: Malaysia's woven treasure. Selvanayagam, Grace Inpam, Singapore, 1933. P.46,54

Brunei



Figure 142a, b: Kain Songket, Brunei; This man's ceremonial songket wrapper is woven with supplementary golden wefts on black cotton ground.
Source: From the survey area in the exhibition of Thailand has shown event innovative fabric of the ASEAN region.

2.7.3 The classification of weave structure and the implementation of textile design principles motif of Yok Dok textile design.

Suchanart Boontiang, (2014) This research is funded by the Office of the Board. National Research Fiscal Year 2014.

This research aimed to investigate the inspiration of original designs of the ancient Prae-wa and how Pu-thai women were gathering and conserving those designs. Qualitative research was used in this study. 30 Pu-thai women who are 50-80 years old living in Kalasin province were selected by purposive sampling. The result indicated that the ancient design on Prae-wa could be classified into 4 concepts as follows: 1) the designs are inspired by creating plants 2) the designs are inspired by creating man and animals 3) the designs are inspired by articles and 4) the designs are inspired by creating environment. Traditionally, Pu-thai women are conserved original designs by constructing through the weft brocade technique onto Pa-saew to prefer by the mothers who wants to be conserved by their daughters. In addition, the ancient design of Prae-wa by sketching technique using Illustrator CS 6 software could be an assistant tool for learning and conservative the ancient design of Prae-wa.

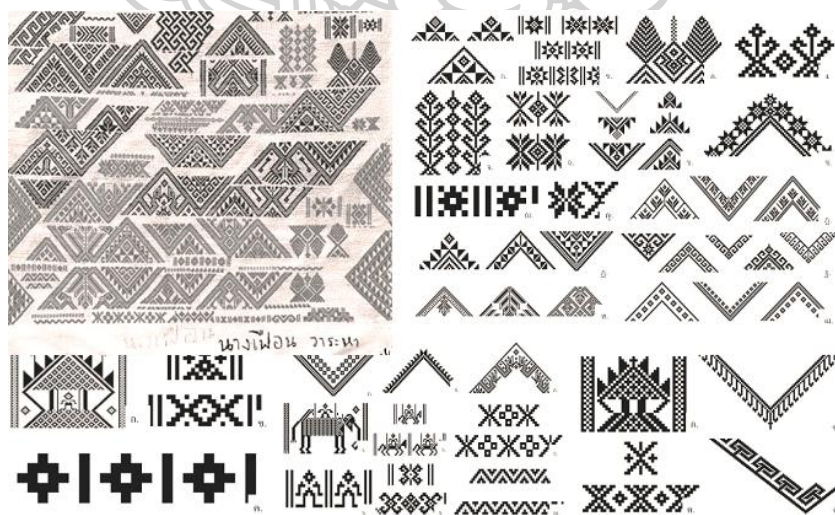


Figure 143: The research of Pa Saew: Original of Designs on Pa Prae-wa.

Source: National Research Fiscal Year 2014.

2.8 The Weaving method the use of material and equipment the synthesis of
Yok Dok
textile design



a.



b.



c.



d.



e.



f.

Figure 144: a, b, c, d, e, f: The process of Thai Silk thread.

Source: Jim Thomson Fram, Amphoe Sikhiu, Nakhon Ratchasima, Thailand

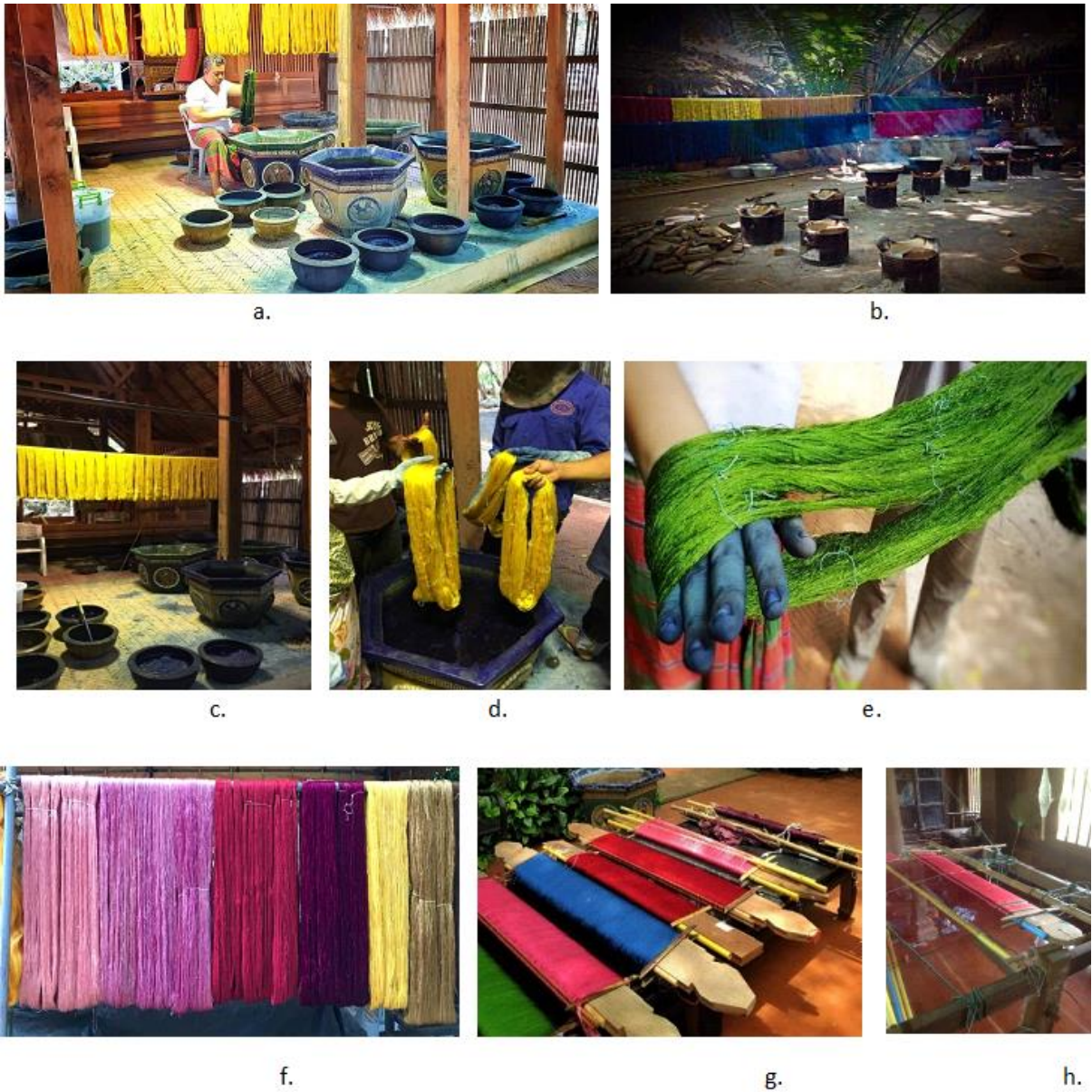


Figure 145a, b, c, d, e, f, g, h: The process of Thai Silk thread dyeing for drawloom.

Source: The located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province.

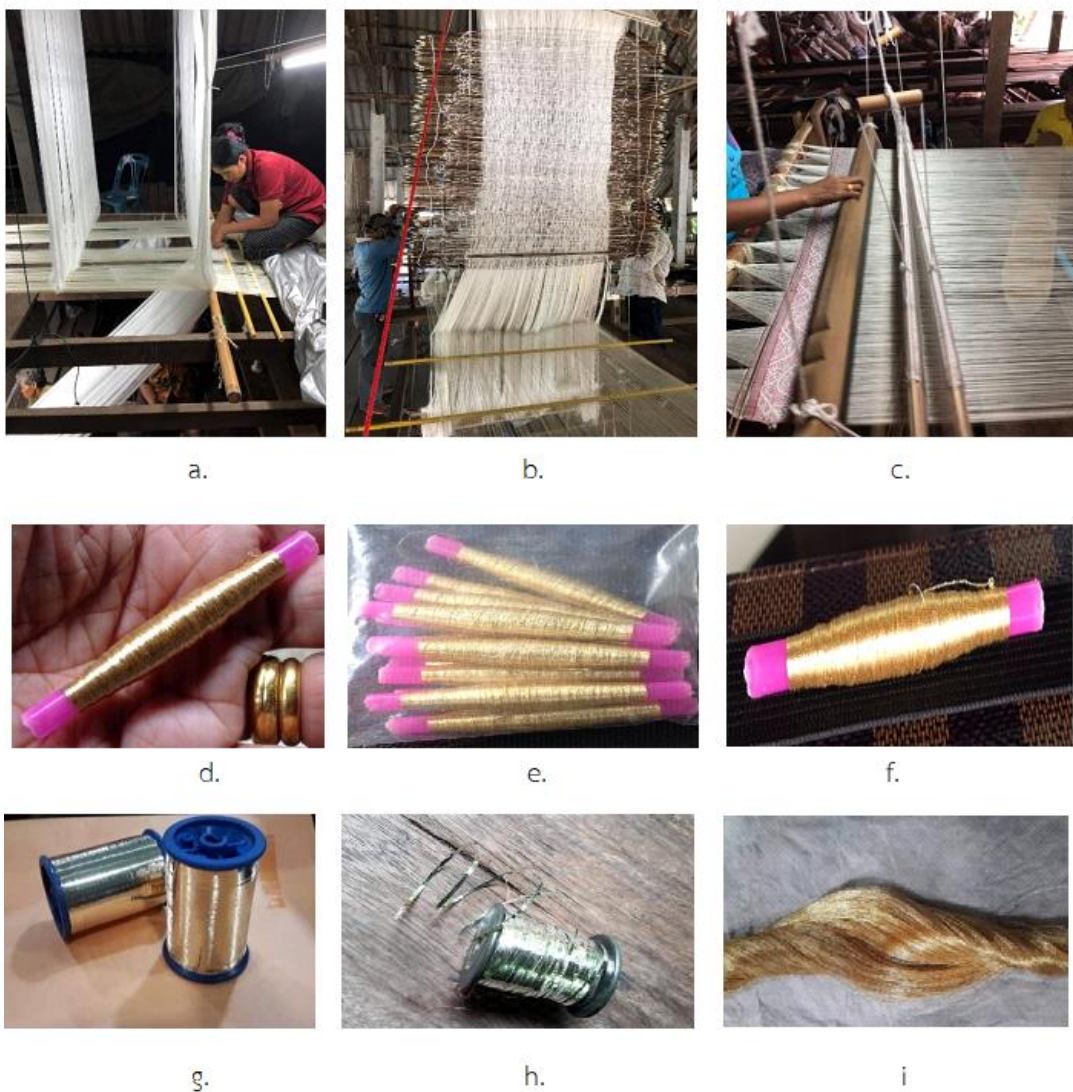


Figure 146a, b, c, d, e, f, g, h: The process of weaving Thai Silk thread and drawloom.
 Source: The located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province.

2.8.1 The classification of invent weaving art inspiration from Yok Dok textile design.



Figure 147: The design patterns motif for drafted and technique of Thai Brocade.
Source: at home Dr. Weeratham Taragoonnerthai.

To study design patterns motif for drafted and technique of Thai Brocade. pick out the complicated a pattern drawn on graph paper for weaving on a drawloom. Found The inspiration for the Thai woven fabric design comes from the traditional royal palaces, stucco patterns and lacquer paintings on the page of the door and window. From the wall of the temple, the local pattern design being appeared is the unique of the kind of Yok Dok fabric.

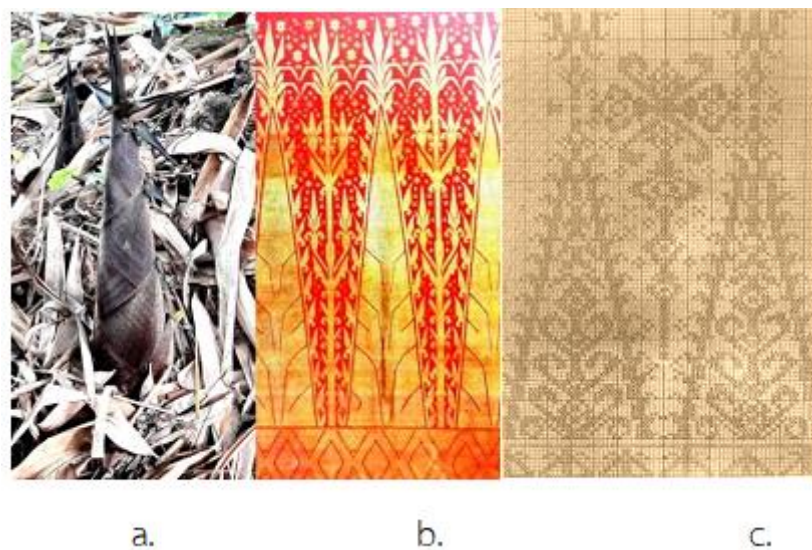


Figure 148: Example: inspired of songket the motifs of the triangular motifs the bamboo shoot and the cockerel's tail feathers.

Source: *Tenun Handwoven Textiles of Indonesia*, Cita Tenun Indonesia, 2010.P27.

Inspired of songket the motifs of the triangular motifs – the bamboo shoot and the cockerel's tail feathers. In Indonesia, story bamboo is very deep philosophy meaning this reflects human life bamboo has many functions for roof, wall, tools of cooking tools of fishing tools of weapon, tools of many traditional ceremonies. Until when we died last to use up close which the earth by bamboo too many values from bamboo like coconut or banana. We have many kinds of bamboo and some people have to believe spirit very rare. Kinds of bamboo have power and only special guys can keep it bamboo development of one direct to above some of the leave go to left and right alike human way but in one direction we can compare with

Chinese and Japan deep symbol they also have great value about bamboo one time of life after that is dead substitution by the generation.



Figure 149: Inspired of the name “Thep-Pa-Nom” motifs of Pha Yok Thong in Roi - Et province, the garment in court Royal the golden fabric.

Source: From the survey area by the weaver of Mrs. Payom Sinawat was honored to be a national artist. Visual Arts (Art of Fabric), BE 2530



Figure 150: To study a design patterns motif for brocade drafted and technique of Pa-saew is woven from synthetic fiber, and created the design with dyed chemical color.

Source: By the weaver Mrs. Maiy Supunyabud Pu-thai women who are 50 years old living in Kalasin province.

“Pa Saew is a small sized quadrilateral shape. Most of them are white cotton fabric. Various original designs are inside being considered as beautiful ones and preferred or important design by the mothers who wants to be conserved by their daughters. The designs are ranged from simple design to complex ones. The cloth designs are created by constructing through the technique called Weft Brocade or lifting the Warp up and down through “Jok” technique (lifting oppressing) and increasing the extra Warp depended on the determined rhythm.

So, it caused prominent bulging pattern being occurred on the fabric. For Pu-thai people’s Pa-saew Weaving, the dyed indigo cloth is used for the extra Weft yarn so that the prominent bulging design with indigo color would be appeared on the fabric. Pa-saw is a kind of inheritance the mothers would give to their daughters when their daughters getting married so that it would be model for their ownweaving.

Besides its value being occurred by one’s weaving technique, Pa-saew is also is an instrument in collecting or gathering the ancient Weft Brocade(Kid Design) design was which discovered, collected, and transferring from one’s ancestor generation to generation from of Pu-thai people as well as the source for collecting design from design tying by imitating from the original major one, integrated into the young generation’s imagination until being the Weft Brocade(Kid Pattern) being occurred in all of Prae-wa Cloth in the present”.

Mrs. Kamson Sra-tong A lady with major role in inheriting the design of Praewa, is transferring her wisdom through “Pa-saew.”

Source: Artistic Prae-wa :Wisdom Inheritance into Queen of Silk by Dr.Suchanart Boontiang



Figure 151: Thai Brocade, Prae – wa : Her Majesty’s Queen Sirikit new dresses.

Source: In Royal Fashion “THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND”, Bangkok, Queen Sirikit Museum of textiles, 2013. P.75.

The project is supported and promoted by the Bureau of the Royal House Hold and Her Majesty the Queen's Foundation. The examples of Thai brocade still owned by the royal family and reviewed by the research were beautiful but, for the most part, too fragile to use. The researcher had been acknowledging therefore, Her Majesty commissioned new brocade design based on older examples. (The project is supported and promoted by the Bureau of the Royal House Hold and Her Majesty the Queen's Foundation.)

Which there are all Her Majesty’s Queen Sirikit new dresses distinctive were the all fabrics from the Thai weavers they were made.

The samples Thai Brocade, Prae – wa: from survey area at Ban-pon, Pone Sub-district, Kammuang District, Kalasin Province.

2.8.2 The classification of traditional motif pattern design and process of weaving art.

Before into the Thai brocades sophisticated that call yok dok weaving, offer to a basic woven pattern is proposed to increase understanding. Weaving can be a really creative and imaginative craft, as well as a practical one. Many weavers seem to worry so much about the technicalities of the craft that they forget the creative opportunities they have at their fingertips. Balanced plain weave warp and weft equal

in size, spacing and count. Twill weave 2/2 or Plain weave with the supplementary weft of brocade cloth.

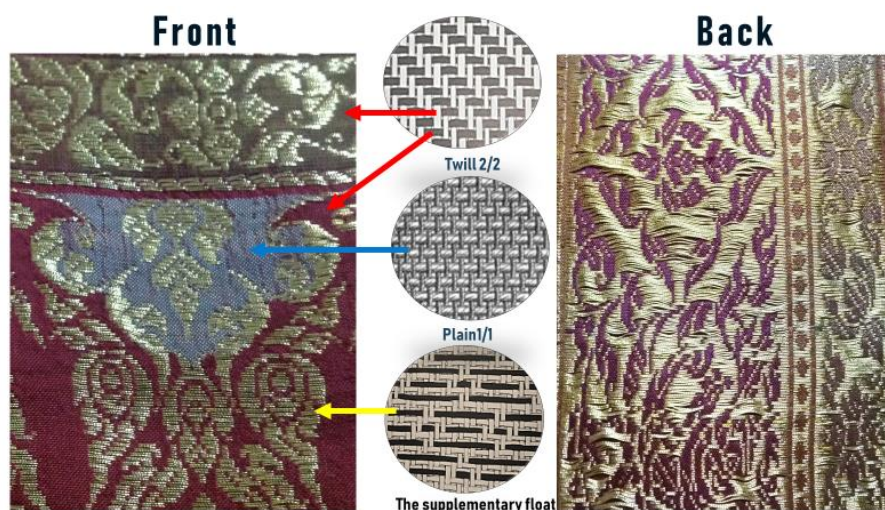


Figure 152: The complex weaves of the yok dok developed are created and controlled by the knowledge and hand of the weaver.

Source: Data of Dr. Weeratham Taragoonngernthai.

The project has involved researching the warp and weft technique used by traditional Yok Dok craftspeople. It is a complex process which requires highly skilled weavers. In the creator's point of view, for the weaving of each fabric depending on a draw frame. The researcher brings to the project a general perspective in textile studies, we can see some universal aspects of weaving. The movement of yarns interlacing in specific sequences forming textile structures occurs in many regions of the world, and until the history of Thailand. Throughout the way that tools and methods facilitate this construction can also be somewhat universal or alternatively, unique, culture to culture. The complex weaves of the Yok Dok developed over millennia are created and controlled by the knowledge and hand of the weaver.



Figure 153: A map showing the area of Thai Brocade (Yok Dok) in each region production of Thailand nowadays.

Source: *Living Thai*, SACICT, April,02/2016.P10-11

2.8.3 The classification of invent weaving art inspiration from Yok Dok textile design art.

The weaving art inspiration from Yok Dok textile design art. Artistry is a mental ability to create different processes. But there may be similarities. About the concept of many localities, despite the conflict in the common people. Shows when the person has flexible thinking. Intellectual flexibility Development and change in cognition Has impact both inside and outside. A capability of a person. And finally, the imagination is to go out. The sculpture of this woven fabric has created a map and adapted the distance between new ideas and objects. The contradictory things

appear in my consciousness. And with overlap and between each other. This is an important element to make the structures semi with this fabric

Practical work on artistic skills with aesthetics of fiber is regional historical importance of local craft history. In today's world using contemporary technology. As I work in the corner, textile artists are finding new ways to work on new materials, connect with the past, and reflect on the importance of contemporary culture in today's life.

On the surface, the sculpture is contradictory in that the horizontal lines and dotted lines are the basic elements of visualization. The viewer is visible on the surface of the grid and grid. This is not a lack of clarity. My goal is to pull the textiles from a smooth surface to make a difference by creating a surface through playing with special yarns. The material is made to look like or the appearance of the Pha Yok Dok. Mr. Piriyaiphong Worakitthanakun and his method to creates an issue for new learning by fixing the difficulties from the past. Creating different characters and feelings in fabrics by using the human imagination, we happen to exist, deteriorates and goes out when we send out our minds. Imagine stuffing up the story. That is birth and it will last until the imagination is satisfied. If you are satisfied with the imagination, then it is boring, that is, the decline. "Pha yok Dok" is the name of Thai textile. Craft and wisdom are ancient. But because each weave has a complicated process. As a result, the successor to less. And the components of intellectual elasticity include flexibility, shifting knowledge, changing job styles/shifting, and changing interests.

But it is the level and position that is in the middle of the visualization process of contemporary techniques. It is the tension between image and process. Surface and pattern Object and image representation. The truth and the trick trust and uncertainty Visibility with the naked eye and experience by the process of contemporary techniques.

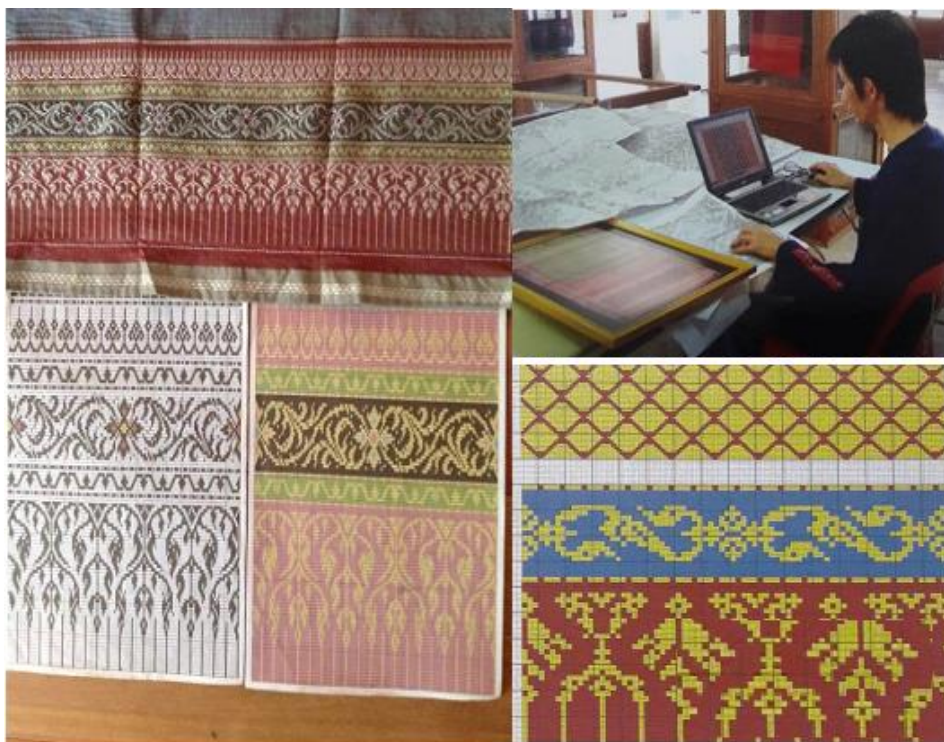
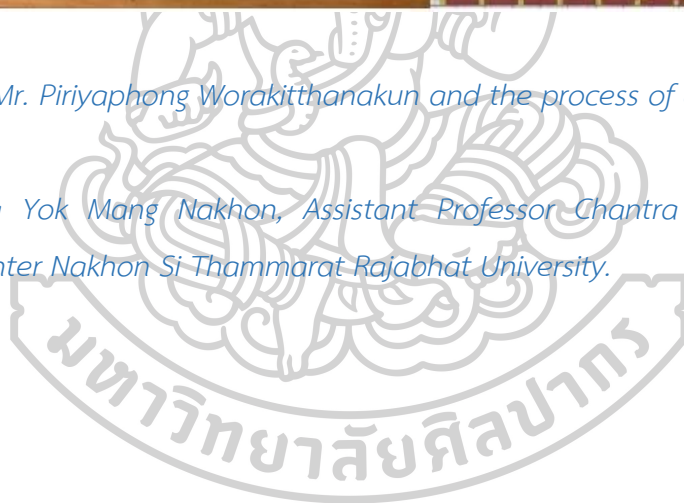


Figure 154: Mr. Piriya Phong Worakitthanakun and the process of contemporary techniques.

Source: Pha Yok Mang Nakhon, Assistant Professor Chantra Thongsamak,(2011)
Cultural Center Nakhon Si Thammarat Rajabhat University.



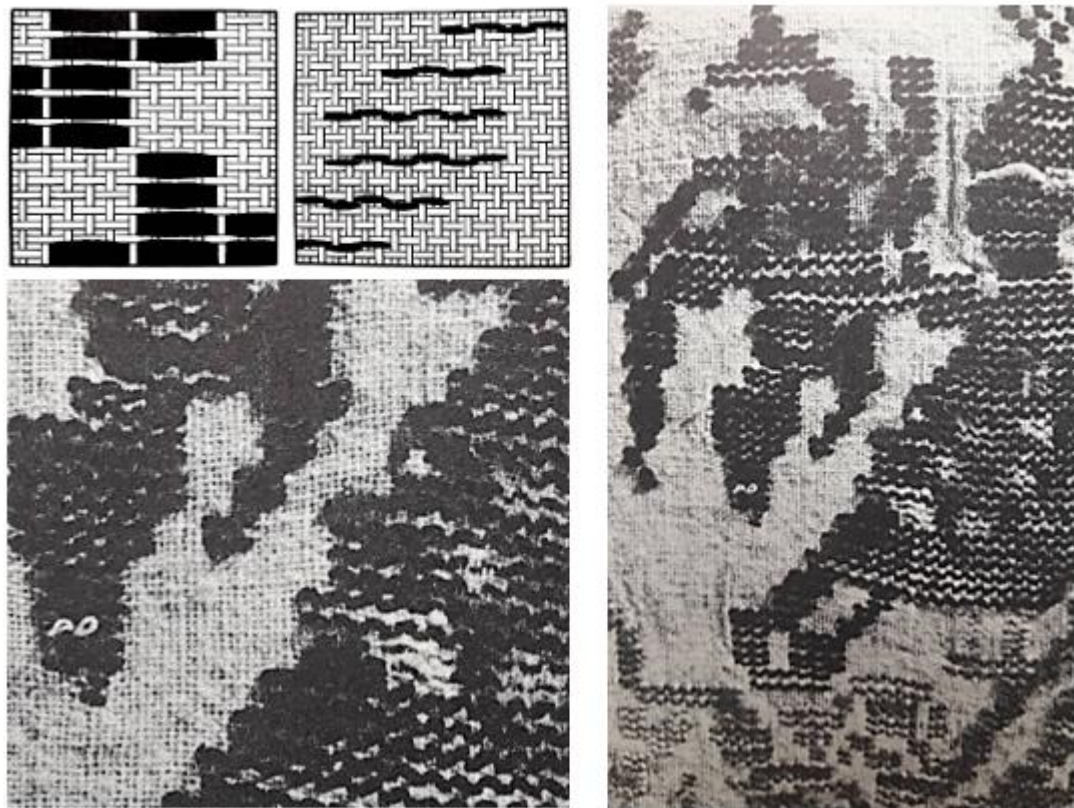


Figure 155: This Sample weaves structure diagram and the brocading of a classic form of Scandinavian dukagang.

Source: A Textile Terminology Warp & Weft, Dorothy K. Bumham, 1980, by the Royal Ontario Museum. P.16.

Simple but effective a type of brocading is used on a cotton towel. After every three picks of ground weft, a two-and-two shed is opened up, the brocading weft is inserted, the opposite two-and-two shed is then opened, and the brocading weft is returned. bound by every fourth warp end in repeating rows; it has two tabby picks to one passage of the brocading weft. It is woven face down with the turning of the brocading weft on the reverse giving a very neat, they were precise appearance. In this research invent weaving art effective a type of brocading from inspiration these to Yok Dok textile design art.

2.9 Review of Art and Design in



Figure 156: Jordan Nassar

Source.: <https://www.olana.org/jordan-nassar/>

About Jordan Nassar

Nassar was born in 1985 in New York City. He's work addresses the cultural elements of his upbringing in the Upper West Side, which he likens to traditional Palestinian embroidery, where each village uses distinct symbols. Some designs also feature technology-related motifs, such as computers. Nassar links with embroidery as the first form of pixilation intersection of craft, language, history, (geo)politics, and technology. Beginning with the intricacies of identity and cultural participation, as a Palestinian-American, Nassar treats traditional craft more as medium than topic, examining subjects such as cultural heritage, ownership, exchange and absorption; emigrant nostalgia for the 'homeland' and its generational repercussions; geography, politics, and orientalism; symbology, codes and language systems; superstition and

religious belief; post-internet visual language; and representational and geometric abstraction.

Source.: <https://www.olana.org/jordan-nassar/>



Figure 157: Jordan Nassar Visual Artist

Source.: https://en.wikipedia.org/wiki/Jordan_Nassar

Nassar's earliest work involved copying embroidery patterns from books. Once he learned that each Palestinian village has its own pattern, he began to develop his own patterns resembling Palestinian embroidery but that do not exist in traditional works. Each work contains up to 75,000 individual stitches. Nassar draws inspiration from Sheila Hicks and Anni Albers, and sees his work as continuing the conversations their artwork has created. He considers their efforts to be about form, texture, and

color, though Nassar primarily tries to address concepts and issues beyond the medium itself. Nassar particularly looks up to Etel Adnan, a Lebanese-American poet, essayist, and visual artist.

Source: https://en.wikipedia.org/wiki/Jordan_Nassar

2.9.1 Textile Art & Design



Figure 158: Etel Adnan tapestry in production at Ateliers-Pinton, France, 2016

Source: frommoontomoon.blogspot.com/2016/07/serpentine-gallery-etel-adnan-weight-of.html

In the late 1960s, Adnan began producing tapestry designs, later having them made into some of the large-scale tapestries on display at the Serpentine. Inspired by the feeling and colour of the Persian rugs of her childhood, the vibrancy of colour and form that exists in her paintings has been translated into wool, woven by hand.

Source.: https://en.wikipedia.org/wiki/Jordan_Nassar



Figure 159: Gunta Stolzl's

Source: <https://www.munyshop.com/blogs/http-blog-munyshop-com/4176662-gunta-stolzl-master-weaver-of-the-bauhaus>

Gunta Stolzl was a student at Bauhaus before becoming the first female "master" on staff. She oversaw the entire weaving program, which pushed the boundaries of textile design and construction. Her finished pieces and sketches display a range of simple and wildly complex compositions. The bold use of colors makes her work very powerful and emotional. These women were not just exceptional designers and craftsmen, they were pioneers of the textile industry. At a time when women weren't allowed to pursue an education in the male dominated field of architecture, they took control of the weaving workshop to express themselves and create masterpieces that helped form some of the founding principles of modern design.

Source: <http://whatido.com/posts/inspiration-day-bauhaus-textiles>

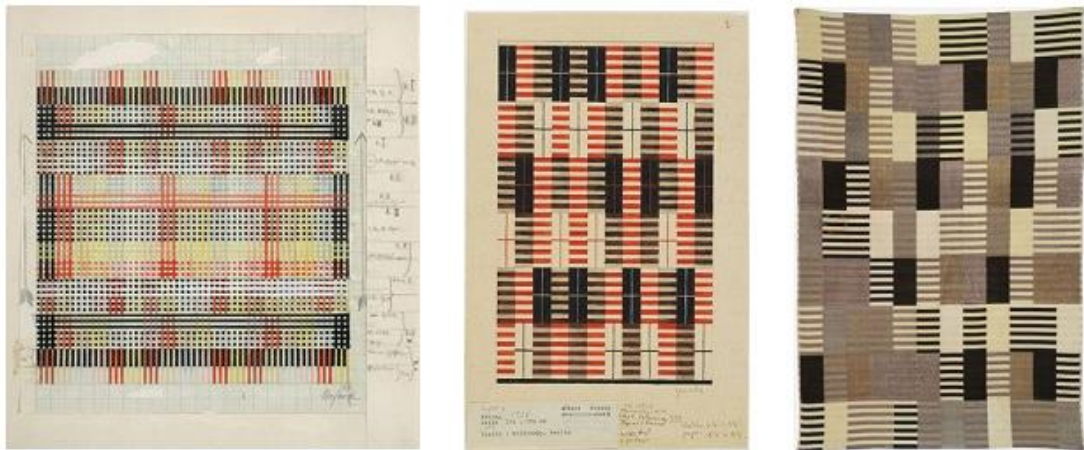


Figure 160: Image is Anni Albers' *Design for Tablecloth, 1930*, from the MoMA

Source: <http://whatido.com/posts/inspiration-day-bauhaus-textiles>

Anni Albers, "Design Anonymous and Timeless," *Magazine of Art*, 1947

From a piece by Sarah Jones on the Kaufmann Mercantile blog. The Josef and Anni Albers Foundation. "Working material into the hand, learning by working it of its obedience and its resistance, its potency and its weakness, its charm, and dullness. The material itself is full of suggestions for its use if we approach it unaggressive, receptively. It is a source of unending stimulation and advises us in a most unexpected manner."

2.9.2 Relevant academic

These women were not just exceptional designers and craftsmen, they were pioneers of the textile industry. At a time when women weren't allowed to pursue an education in the male-dominated field of architecture, they took control of the weaving workshop to express themselves and create masterpieces that helped form some of the founding principles of modern design.



Figure 161: Etel Adnan tapestry in production at Ateliers-Pinton, France, 2016Source: frommoontomoon.blogspot.com/2016/07/serpentine-gallery-etel-adnan-weight-of.html



Figure 162: Gunta Stolzl

Source: <http://whatido.com/posts/inspiration-day-bauhaus-textiles>



Figure 163: Anni Albers

Source: *Anni Albers On Weaving new expanded edition*, by The Josef and Anni Albers Foundation, 2017.P 2

2.10 Summary of Literary Review

2.10.1 People in this research



Figure 164: Khon costumes are typical of theatrical dress in general

Source: *Dressing God Demons Costume for Khon*, Museum Textiles Queen Sirikit ,2016. P.36, 37.

- People and traditional textile

The classification of traditional motif pattern design and process of weaving art although little is known about the origins of khon, it is thought to have arrived at about the same time from the same source. Once established in Siam, khon become linked to important royal rituals of the period. They appear convincingly rich and royal but are always made of lesser materials and with subtle style and construction

changes that further differentiate them from genuine court dress. Additionally, in Thailand commoners are prohibited from imitating royal dress.

A 15th century Palatine Law text, rewritten during the reign of King Rama I (1782 - 1809), describes the "Churning of the Ocean" ceremony (Indrabhiseka), as part of the royal rites for Siamese kings. It mentions a stage set representing Mount Meru (home of the god Indra) and male courtiers dressed as a god, monkeys, and demons' elements still found in khon performances today.

This ceremony centered on the transformation of the new king from mortal being to the divine ruler. Thus, the Ramakien and khon had political as well as religious significance, serving to promote acceptance of the king's divinity by his subject.

Khon became a part of almost every royal ceremony of note. By the time of King Narai (r.1656 - 1688), it was no longer associated only with courtly ritual but had become popular entertainment as well. Performances of khon survived until the end of the Ayutthaya period and were carried over into the Rattanakosin era, which began in 1787, serving as a tangible link between the culture of Ayutthaya and the new Chakri dynasty.

Until the mid -20th century, Thai monarchs were steadfast and entertaining, it served key social, culture, and political purposes that went far beyond mere amusement, portraying loyal subjects whose ideal king, Rama always prevailed in the struggle against evil.

In 2005, Her Majesty Queen Sirikit decided to revitalize royal patronage of khon, one of Thailand's oldest narrative dance forms. Khon dramatizes the Ramakien, Thailand's best-known work of classical literature, one of several versions of the great Indian epic poem the Ramayana. The narrative describes the exploits of Rama, an avatar (earthly incarnation)of the Hindu god Vishnu, as he fights to free his wife, Sita, from her abductor, the King of Lanka.

The main characters of khon are gods, demons and kings. Accordingly, its costumes have been modeled closely on the splendid dress worn by the members of the royal family for important rituals, such as the coronation and topknot- cutting ceremonies as depicted in old photographs. During the reigns of both King Rama

IV(r.1853-1868)and King Rama V(r.1868-1910) these rites were known for their magnificence; they are excellent sources for khon costumes.

Source: Dressing God Demons Costume for Khon, Museum Textiles Queen Sirikit ,2016. P.13,33.



Figure 165: Dressing God Demons Costume for Khon

Source: National Museum, Bangkok. the survey area.

2.10.2 Theoretical Framework

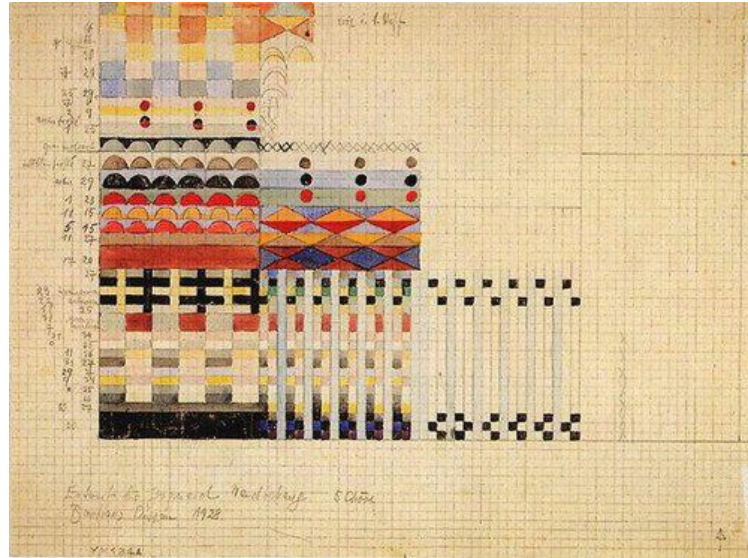


Figure 166: Textile design by Gunta Stözl and Anni Albers at Bauhaus school

Source: <https://nancyland.com/2014/12/>

My research relates to the techniques and styles of Yok Dok that can be changed from traditional methods using contemporary fabric process methods. This project involves the research of variance techniques and fabrics used by Yok Dok craftsmen. It is a complex process that requires skilled weavers. Based on this survey for research as described in Chapter 2, it is found that there is a method of using a weaving structure that can be adjusted by opening and closing the warp yarn on the pull frame. That is the beginning of the basic weaving to use in yarn supplementary and weaving Yok Dok to be a model for teaching and learning.

Using the relevant literature, Immanuel Kant, "A Theory of Aesthetic, according to Kant's theory of tastes, even though it has been over a century. But still recognized internationally as a key concept in contemporary aesthetics. Many of Kant's follower's Subjects, artists, designers, architects, composers, and others still use Kant's philosophers as a framework for developing personal or group aesthetics for academic studies, including operating bases techniques and weaving done by generations before to the new.

Kant's theory is used as a concept, origin, or principle that beauty, criticism or creative work will be formatted. The main concepts are:

1. Taste is the heart of Kant's aesthetics.
2. For Yok Dok's tastes, indifferent must be a key factor.
3. In the future, individual or group of artists who wish to develop the international version of Yok Dok in the 21st century can use Kant's concept of taste at the from for development.

All need to be recognized by the digital society that is easy to understand. Adopting modified materials Durable products, the modern style answers the community, accepting and acknowledging activities from around the world.

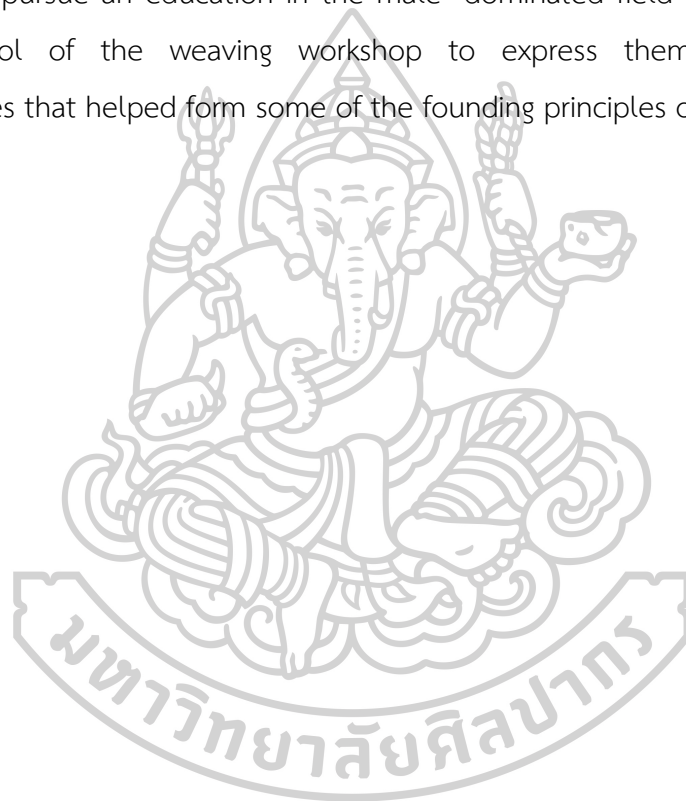
Kant is a philosopher, not an artist but who developed his philosophy for over two centuries, but philosophers, critics, artists or designers, his followers can take Kant's direction for future development.

Therefore, there are interesting ideas of artists in textiles that are unique teachers such as a new weaving practices in her teaching Gunta applied ideas from modern art that she acquired in the classes of Jonannes Itten (color theory), Paul Klee (visual thinking) and Wassily Kandinsky (abstract art) into a new weaving practice. Bauhaus' Weaving department at the time did not offer much for her to learn technically. She and other students took courses and learned the craft outside of the school, soon becoming experts. Lack of technical guidelines allowed her and her colleagues to question and experiment with different materials and techniques, allowing them to make the step from traditional textualizing that would become admired by generations after.

Gunta had a rich life expressed in a comprehensive collection of her correspondence, her innovative and beautiful body of work. Textile art owes a lot to the first audacious threading movements established by Gunta. Her work is part of numerous museum collections in Europe, USA, and Japan. In 1968, looking back to her Bauhaus days, Gunta wrote "Even today, I believe that most important of all was life itself. She joined the Bauhaus as a student in 1920, became a junior master in 1927 and a full master of the coming year. She was dismissed for political reasons in 1931, a year before the Bauhaus was closed under pressure from the Nazis.

Source: www.guntastolzl.org / Wikipedia

One of the most well-known (and my personal favorite) of Gutna's pupils was Anni Albers. Her style was influenced and complimentary to her husband's, architect Josef Albers. The intersection of vertical and horizontal lines seems like a simple concept, but her clean layouts and use of positive and negative space make the patterns visually fascinating. These women were not just exceptional designers and craftsmen, they were pioneers of the textile industry. At a time when women weren't allowed to pursue an education in the male- dominated field of architecture, they took control of the weaving workshop to express themselves and create masterpieces that helped form some of the founding principles of modern design.



CHAPTER 3

METHODOLOGY OF THE RESEARCH

3.1 DATA ANALYSIS

This research is a qualitative research and there are many types of data inference from various sources to be a field record of in-depth interviews. Participatory observation and discussion of the weaving group that still lives with weaving by studying documents, research and participatory action research, learning through the experimental process for weaving techniques, new techniques for Adaptation to the existence of current and future teaching and learning.

The researcher studied the conservation of mantles of art from the National Museum and participated in the search for theoretical knowledge and solutions to problems related to education from experts in the production of woven fabrics for the royal court. Antique woven fabric manufacturer Specialist in textile fabrics, machinery in industrial plants including.

Dr. Weeratham Taragoonngernthai who kindly advise me about the Thai royal court in a fashion Rattanakosin period of Pha Yok Thong. The yok dok woven fabric entrepreneurs who have developed from what the family sent together by combining the weaving techniques that have traveled to study from India and have worked for the royal court by weaving yok thong for actors Khon. Bestowed And as a consultant Ready to teach, transfer the weaving process to members of the arts in HER MAJESTY QUEEN SIRIKIT consort of His Majesty King Bhumibol Adulyadej (Rama IX) of Thailand.

Now a day of Pha Yok Dok from Surin province. The golden fabric is located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin province. To be fashion in events and business organization the clothing to fashionable was at least an acceptable option for women from the Thai court and they were growing Thai urban middle class were also beginning to adopt Western fashions, following the lead of court and the extended just modern and spurred, by social online the availability of information through periodicals or magazine.



Figure 167: The researcher and Dr. Weeratham Taragoonngernthai with a gold brocade fabric with dense gold brocading from the weaving on a drawloom
 SOURCE: by Dr. Weeratham Taragoonngernthai Surin Province, Thailand.

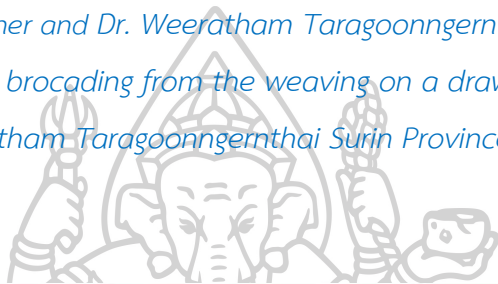


Figure 168: A business organization the clothing to fashionable
 by Dr. Weeratham Taragoonngernthai

Mr. Schle Wood-thanan, who kindly advise the researcher about Jacquard and all the weave structure on section a machine loom. The owner and expert in brocade textile called Jacquard and Dobby products with industrial machinery Textile companies, including doing textile business for over thirty years, the researcher had been worked with him as a designer for more than ten years. At Satin Textiles Co., Ltd.



Figure 169: Mr. Schle Wood-thanan and his son Mr. Patikorn Wood-thanan



Figure 170: The past of the researcher worked at Satin Textiles Co., Ltd.



Figure 171: Design in brocade textile called Jacquard by researcher in the past.

The researcher has done a series of experiment. Variations of yarn type, colour or other dimension chosen to make rich design variation to design and contemporary Yok Dok, a synthesis between classical the golden fabric of the Royal cord of Rattanakosin period and the contemporary Thai litterateur work which telling design use all types of fiber of cotton and yarns chemical dyes, the thin Mesh, plastic mesh. Bypass Multi Culture for Tradition Culture, The old Original, Innovative Technology, to Contemporary art. It is the guidelines for handling core issues of the creation and must start from the motif of design, to improve the pattern of contemporary fabric are the synthesis of brocade in making patterns.

The results showed that the operation weave structure can be operated by opening and closing of the warp yarn on aslant a draw frame. It is a complex process which requires highly skilled weavers.

In creators of view, for the weaving of each fabric-depending on a draw frame for creating a product and to serve as a guideline for further research.

Aesthetics inquiry to find the appropriate framework for the development of "Taste of Yok Dok"

Dr. Weeratham Taragoonnerthai, referring to the ancient Yok Dok beauty of the royal court that should adapt to the common people to be used in special and important events. Or expressing the status of the business, such as Thai dress for wedding Thai dress of the establishment Hotel or hospitality

Mr. Schle Wood-thanan, mentioned the beauty of Yok Dok in the corner of textile businessmen That takes into account the production costs that need to control the production period World fashion trends Should be managed with machines, machines, and IT equipment so it is worth the investment.

TECHNICAL REASON

Researchers on planned to design a synthesis between classical the golden fabric and the contemporary Thai litterateur work which telling design use all types of fibres of yarns chemical dyes, the thin mesh. Bypass the Original, Innovative Technology, to contemporary art. The roots of technology heritage of the West and the combined talents of the new research. Take up the interaction of the components.

- Weaving process
- Weave structure
- Basic materials
- Diagram

The preserved findings revealed that information technology was very useful to manage local wisdom information and knowledge which allow learners to access and practice weaving much easier. The reasons mentioned above, is used as a guide the objective of this study for researchers with innovative ideas in both artistic and academic in concept of bringing this fascinating weaving process to create art form.

- Creating a sample
- Process
- format
- Adoption

Its valuation is much more than usual clothing which uses all types of cotton and chemical dyes, plastic nets, plastic mesh. The wisdom of this finding is the process and design which is the first method of fabric craft practice. As a researcher, it is expected that with this research in the roots and identifies what should be done to

the acceptance most possible. To apply material for use emerging will allow the process of thought to be fully realized.

The managerial grid model theory has to evolve and develop. The theory was styles and with a new element, resilience. Be compared as the extra weaving techniques began to insert the yarn with a coating with a thin layer of metallic yarn onto a mesh or netting put in the square measure of the thin mesh that is a base of the woven structure. It is thin and light, get it to be low density.

From these principles, to expand for understanding.

- Motifs
- Texture
- Textile structures
- Distinguish
- The most suitable application

The different kind of weave use the point at which a beginner should start weaving depends more on space of pattern weaving structure by basic weave pha yok dok motif appears clearly due to the sophisticated method of weaving. Are to present the values of textile art, to promote hand-woven textiles to be on a same level as the Fine Art

- Design
- Technic
- Material
- Prototype for weaver space

The concept of managerial grid model, from its primary purpose and application is related to organization or project management, but the application to art and design is possible. If an organization or project has structure and staff members to execute and carry on the mission to the final goal, so can the researches use the parallel idea to set up vertical yarns, followed by horizon yarns and the weaving is carried on to its final stage.

If the weaving is compared with induction and deduction, finding the theory of managerial grid model functions as the main structure. The researcher has the theory as the center to guide the design concept. Making principal structure, followed by details to its final stage.

3.2 LIST OF EQUIPMENT

Properties

This is the new material for the thin mesh, the cotton mesh, the plastic mesh bypasses the original, innovative technology, to contemporary art. special properties of the purpose of my research brocade technic is to create a material that has the best mixing the two fibres can utilize the properties of differing strengths, breathability and more durability and flexibility. In technique is to create a material that has the best mixing the two fibres can utilize the properties of differing strengths, breathability and more. Can be added to a thin layer of metallic to help give the polyester more of a wicking finish, and polyester can be added to cotton to give it more durability and flexibility

The final fabric is normally and flexible. It is also tear-resistant, less prone to pilling and static, can be made into abrasion-resistant fabrics, such as canvas. We can often find different ratios of the fibers, which will suit my end purpose.

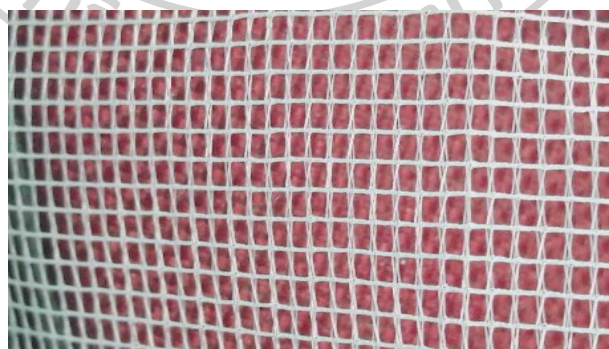


Figure 172: The cotton thin mesh: The fabric is thin and sees through in both 1/8"square configurations, but the strength of the material to be used in conjunction with artificial fibers. Flexibility in light and water resistance

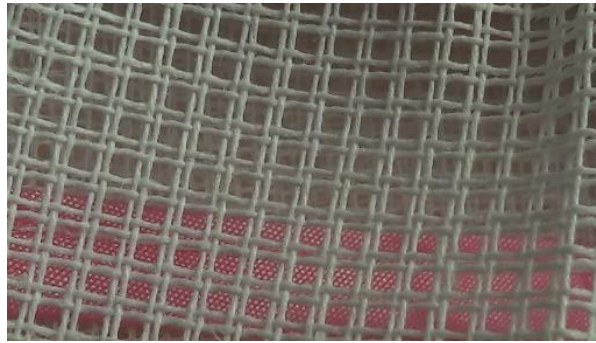


Figure 173: The cotton mesh: The fabrics have moderate densities in both 1/8"square configurations. The strength of the material to be used with artificial fibers. Flexibility to withstand light and water.



Figure 174: The plastic mesh: The high-quality, extruded plastic netting is both 1/4"square configurations for a wide variety of aquaculture applications. Made from a pliable, yet durable semirigid polyethylene that is great for outdoor use. All screening is nontoxic.

This netting is characterized by a smooth surface and heavy-duty construction. And the material is produced to high-quality standards for consistency, uniformity and flatness making fabrication into weaving art with Telephone cables wire and cotton waxed coating yarns can be done.



Figure 175: Telephone cables wire: The telephone cord is a wire with in copper wires wrapped by a plastic shell various sizes and colors that are beautiful when used in this research that is used standard sizes.



Figure 176: The cotton waxed coating yarns That is the coating a yarn waxed cotton is cotton impregnated with a paraffin or natural beeswax-based wax, woven into or applied to the cloth.



Figure 177: The yarn with a coating with a thin layer of metallic: The metallic fibers are manufactured fibers composed of metal, plastic-coated metal, metal-coated plastic, or a core completely covered by metal.

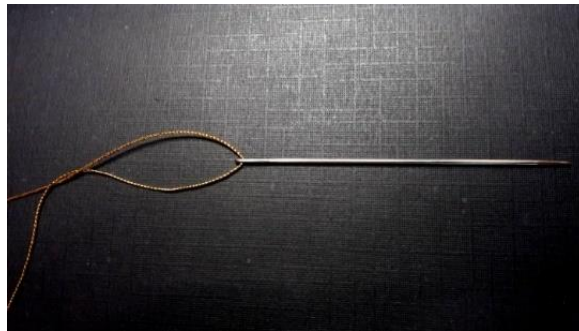


Figure 178: Sewing needle: The Needle 6 " size is the main device.



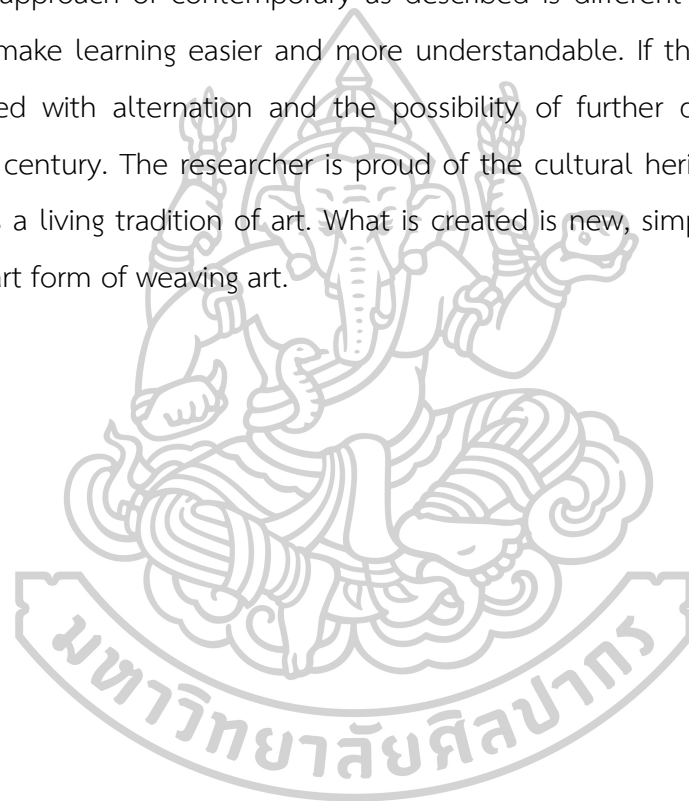
Figure 179: A bamboo sticks: The bamboo stick 18" size to use for take-up weave same a string model to hanging on a loom.

3.3 METHODOLOGY METHOD

The researcher found that technology of the pass was very useful and can be applied to the manage local wisdom and knowledge. It allows learners to have access to the source of knowledge and enhance practice weaving much easier. As mentioned above the study can be used as a study guide. The objective of this study for a researcher with innovative ideas in both artistic and academic in the concept of bringing this fascinating weaving process to create an art form. Its value is much more than usual clothing which uses all types of cotton yarn or yarn chemical dyes. The body of knowledge in this finding can be applied to studying the process and design, the first method of fabric craft practice.

As a researcher, it is expected that with this research is a search of the roots and identity of the art tradition, what suggesting should be done, what is the most accepted or most possible practice. The art of weaving is not just the classic tradition of the past; it can also be a source of inspiration for contemporary design in Thailand.

Finally, a researcher has tried to make an investigation of the experimental results. String coated yarn is used in weaving, pattern design with a motif of the image, the approach of contemporary as described is different from the traditional design. To make learning easier and more understandable. If the two concepts can be combined with alternation and the possibility of further development of the twenty-first century. The researcher is proud of the cultural heritage of the country, its status as a living tradition of art. What is created is new, simplifying, it is inspiring traditional art form of weaving art.



A DIAGRAM OF THE METHODOLOGY OF THE RESEARCH: Exploring the significance of yok dok textiles for education purposes.

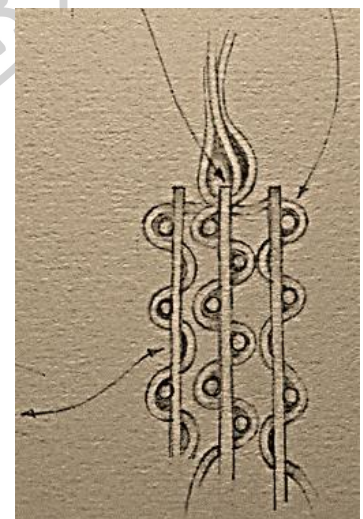
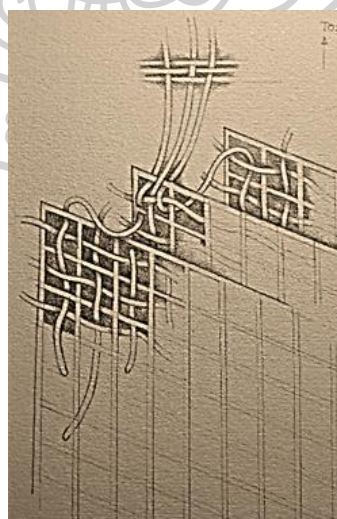
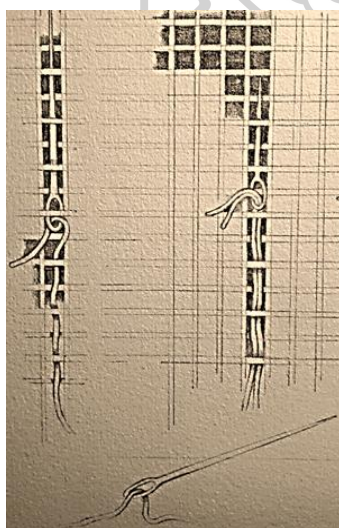
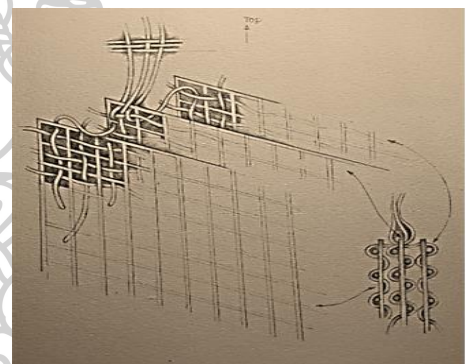
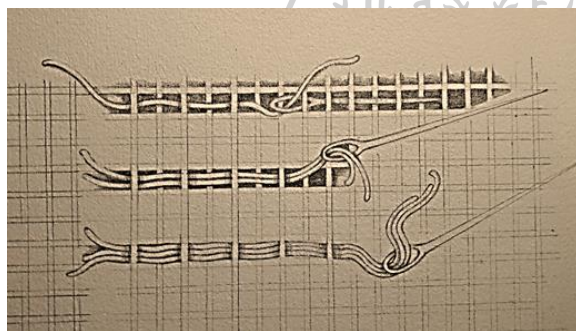
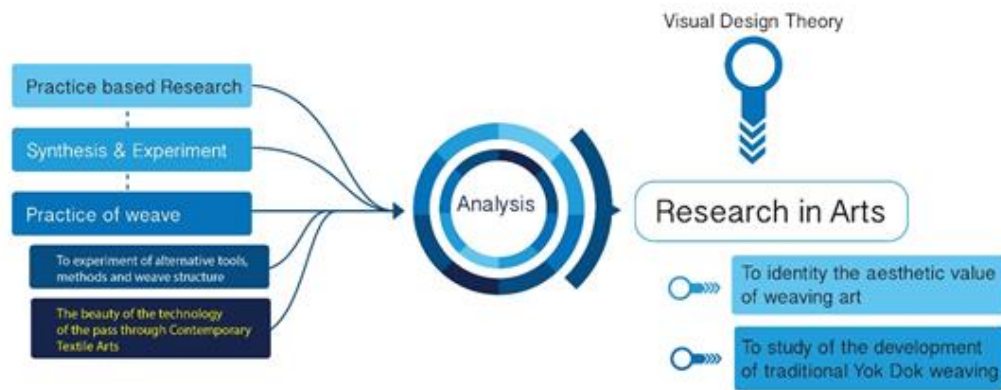


Figure 180: A diagram of the methodology of the research and the example: The practice based of weave.

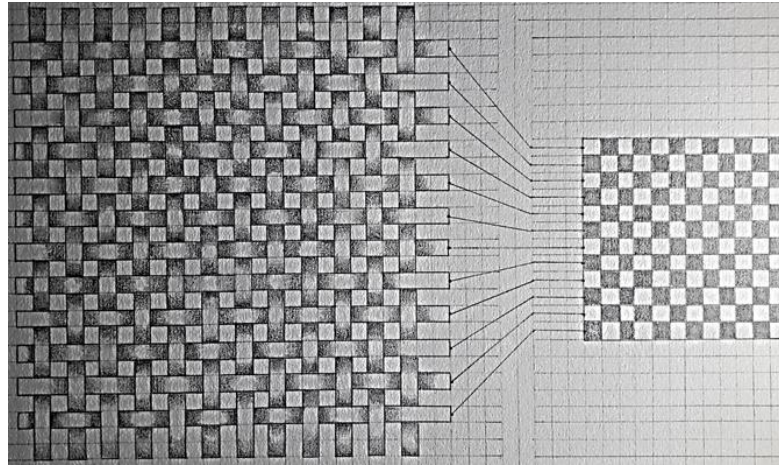


Figure 181: The practice based of plain weave.

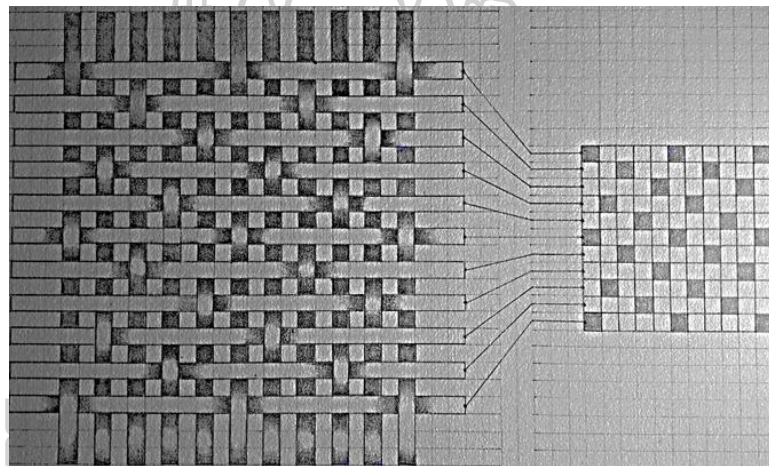


Figure 182: The practice based of satin weave.

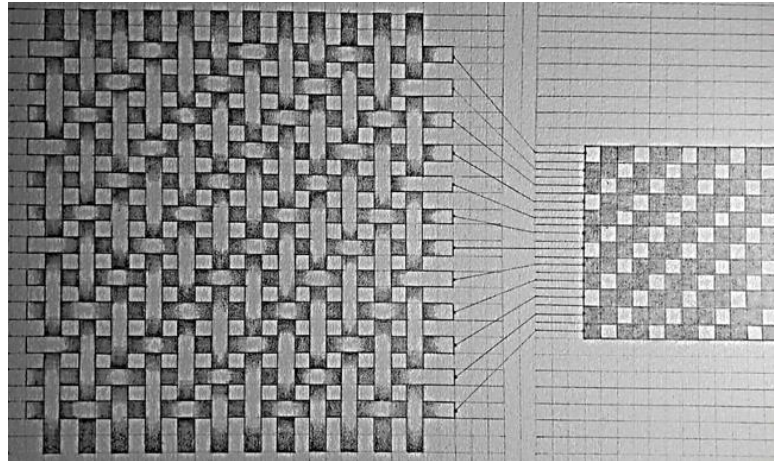


Figure 183: The practice based of twill weave.

A common weaving art tradition different names each language such as called Songket/Sungkit by Indonesia/Malaysia/Brunei. The songket-weaving is a traditional craft work. It has been known already since the Sriwijaya period. The materials utilized are usually gold and silk yarns. The original characteristics of Palembang songket can be detected by observing the motives on those textiles.

According to the applied decorative motives and their designs, the motives reflects roses, chained stars, waves, and bamboo shoots. Several names of songket weaving are known as Songket Lepus, Songket Naga Berdaung, Songket Bunga jatuh, Songket Bunga Cina, Songket Bertabut, Songket janda berhias, etc.



Figure 184: Example: the technic songket-weaving the original technique to use traditional craftwork weaving tools inspired for this Ph.D. Thesis

SOURCE: <http://indonesiacultural.blogspot.com/2008/03/palembang-songket-handwoven-textile.html>.



Figure 185: Example: inspired of songket the motifs of the triangular motifs the bamboo shoot and the cockerel's tail feathers.

SOURCE: Tenun Handwoven Textiles of Indonesia, Cita Tenun Indonesia, 2010.P27.

3.4 EXPERIMENTAL RESULTS

The new a motif has been to beauty in shining of thread on all the mesh by making it simpler or less complex. Does which create has been beauty on the surface. Moreover, synthetic materials are mainly used instead of natural ones. The beauty of the motif is unique of textile in the 21st century. A vibration of the lighting reflective of the yarn affects is on the intensity or softy. Furthermore, to watch working a thing done on a prototype model. This need has been developed weavings art by theory. Required system difference dimensions and related are crease effects of light refaced vibration have been obtained on the surface.

This research placed great emphasis on interpreting aesthetic values and identity of contemporary textile art. To analyze and interpret the concept of "Contemporary textile". My art form inspired by "The beauty of creating a pattern on the bamboo size little and long straight line and the thin mesh." The research found that insert the yarn onto the bamboo size little and long straight line and the thin mesh in the scale the researcher is thinking an important factor in enabling the weaver to create a new textile design.

The results of the experiment 1st

I have worked by myself across the learners to access and practice weaving much easier weave style to understand this have studied more than 6 textile samples in my collections, from the prototyped works were technical research that sets out the authors' alternative classification system via tables, the thin mesh, and diagrams. But it is also a new of a sophisticated weaving art. Each technique is described in detail, with technical details development with accompanying photographs. The results of the experiment 1st by insertion thread put a bamboo stick to take up weave same a string model on the hanging of the surface.



**The technique by the weaving apparatus (string model) with motif pattern.
The results of the experiment 1st .**

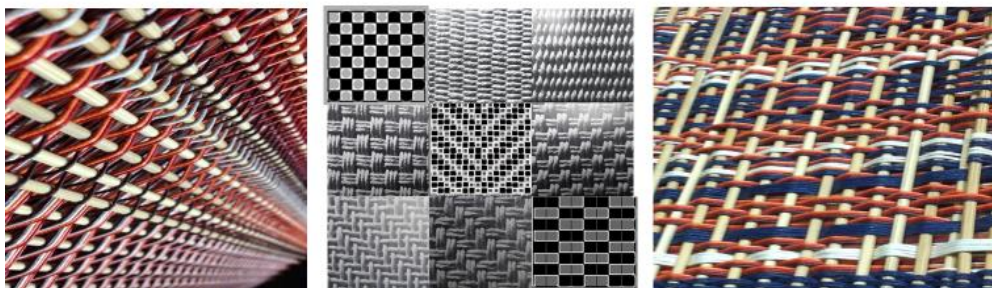


Figure 186: Example: inspired from songket the results of the experiment 1st.

The material are gold and silk yarns

Palembang songket sarongs are not used daily, but at certain ceremonial events only, e.g. at traditional (adapt), wedding, religious ceremonies. The songket weaving are available in the form of sarong, shawl and headcloth. In latest development songket weaving are produced for various outfits of divans, back and seat of chairs, table coats, bags etc.

Source: <http://indonesiacultural.blogspot.com/2008/03/palembang-songket-handwoven-textile.html>



Figure 187: The material are gold and silk yarns of songket weaving are produced.
 Source: From the survey area Private Museum of Dr. Weeratham Taraagoonngernthai.

The results of the experiment by the researcher.

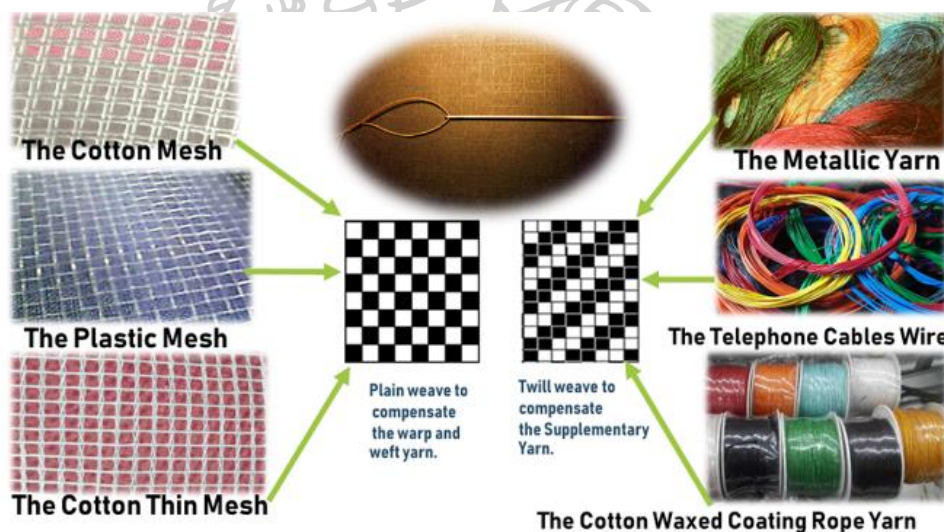


Figure 188: The results showed that the weave structure can be adapted by opening and closing. The warp and weft yarns on a draw frame with this all types of equipment.

The researcher found that Thai weaving techniques can be applied to develop contemporary designs. Instead of using only natural fiber or conventional domestic yarns, combinations of yarns, with modern synthetic chemical dyes, thin mesh, and

plastic mesh etc., will be integrated to create a synthesis of contemporary weaving art as well with this all types of equipment.

- The Metallic Yarn & The Thin Mesh
- The Metallic Yarn & The Cotton Thin Mesh
- The Cotton Waxed Coating Rope Yarn & The Plastic Mesh
- The Telephone Cables Wire &The Plastic Mesh

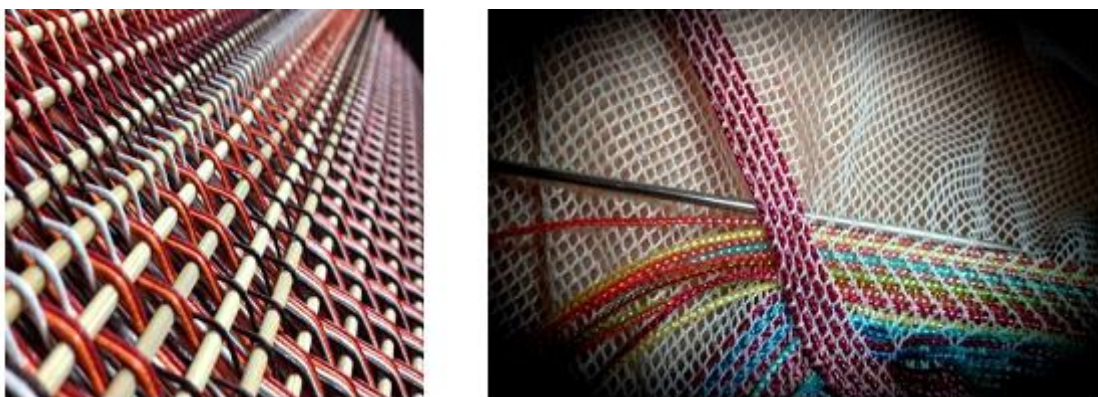


Figure 189: To comparative a bamboo sticks and the thin mesh in the operation weaving.

The supplementary a new image of a technique showed that the weave structure can be adapted by opening and closing the warp yarn on a draw frame. Therefore, there is a concept that this new technique can continue to work as the following guidelines.

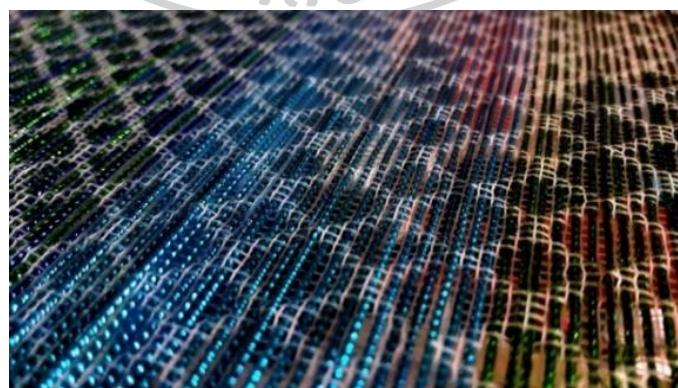


Figure 190: The new a motif has been to beauty in shining of thread on all the mesh by making it simpler or less complex



Figure 191: The results of the experiment 2nd by insertion thread put in the square measure of The Metallic Yarn & The Thin Mesh same embroidered and which embellished on the surface

3.5 SURFACE DESIGN AND DECORATIVE TECHNIQUE

The researcher to be considered in Thai weaving techniques will be applied to develop contemporary designs. Instead of using only natural fiber or conventional domestic yarns, combinations of yarns, with modern synthetic chemical dyes, thin mesh, and plastic mesh etc., will be integrated to create a synthesis of contemporary weaving art.

By applying a kind of coated yarn or the telephone cables line, passing the mesh structure or netted threads, this unconventional device as a substitute to conventional weaving technique, any texture on the surface. It can be used for a decorative technique for interior or craft and arts.



Figure 192: The results of the experiment 2nd by insertion thread put in the square measure of The Telephone Cables Wire & The Plastic Mesh same embroidered and which embellished on the surface

3.6 PURE PRACTICE

The researcher plans to design a series of fabric artworks based on the inspiration of Thai literature. Original, traditional. Remind of a pass the inspired from

- ...Dressing Gods & Demons Costume for Khon.
- ...Thai Fence of the ceremony in form of motifs.
- ...Thai painting picture.
- ...Thai handicraft ELEPHANT MESH PAGE for the sacred ceremony of Thailand.



The series of fabric artworks based on the inspiration, kind of arts in Thai literature.



Figure 193: The inspiration by Thai literature. Original, traditional.

Remind of a pass the inspired from Dressing Gods & Demons Costume for Khon. To make the experiment all by insertion thread put in the square measure of new material as same embroidered and which embellished on the surface.

The researcher can work on a kind of coated yarn and The Telephone Cables Wire and The Cotton Waxed Coating Yarns were used in weaving material. The technique is applicable to all product wherever he wants. By without using the conventional method on the basic loom or other specialists to weave.



Figure 194: To make the experiment by insertion thread put in the square measure of new material “The Cotton Waxed Coating Rope Yarn & The Plastic Mesh” as same embroidered and which embellished on the surface.

3.7 EXPERIMENTAL WEAVING METHOD AND EMBROIDERY WEAVING ART

The experimental weaving method and embroidery weaving art have the hypotheses of this study were aesthetic to present new perspectives of contemporary textile design, to create new motifs fix it up with invented new technic by the researcher was the significant factor which enabled weavers to create new and attractive woven textile structures.

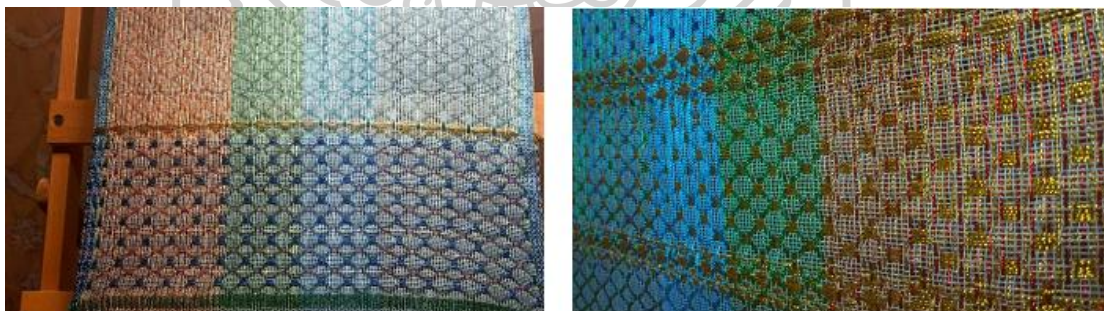


Figure 195: To make the experiment by insertion thread put in the square measure of new material “The Metallic Yarn & The Thin Mesh” as same embroidered and which embellished on the surface.

3.8 THE SUPPLEMENTARY OF YARNS WEAVING TECHNIQUES

The researcher found that is a supplementary weft technique. That is the process of designing for weaving which is the first method of fabric craft practice to use for the manual textile art inspiration from Pha Yok Dok textile design to those who is the weaver.

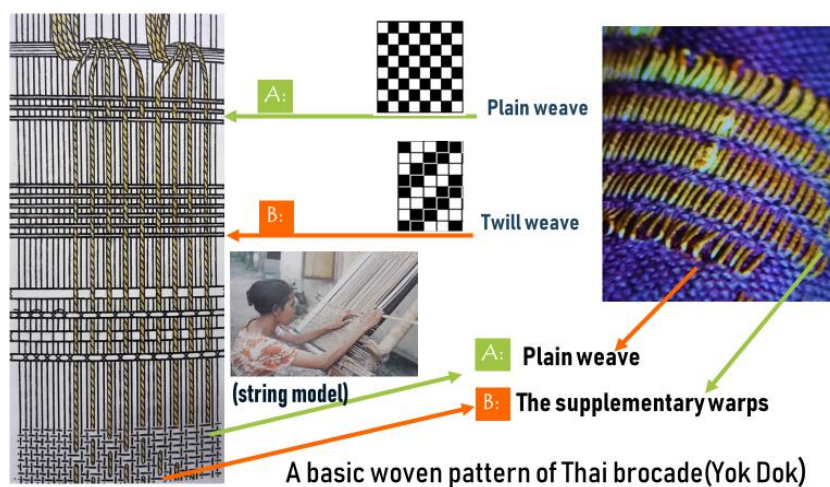


Figure 196: The activation results showed that the weave structure can be adapted by opening and closing the warp yarn on a draw frame. The particularities semi Yarns assembled in parallel using embroidery semi weaving.



Figure 197: The Metallic Yarn & The Thin Mesh.



Figure 198: The Metallic Yarn & The Cotton Thin Mesh.



Figure 199: The Cotton Waxed Coating Rope Yarn & The Plastic Mesh

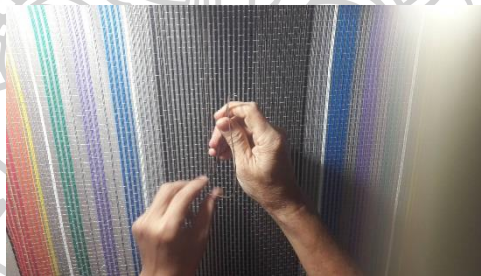
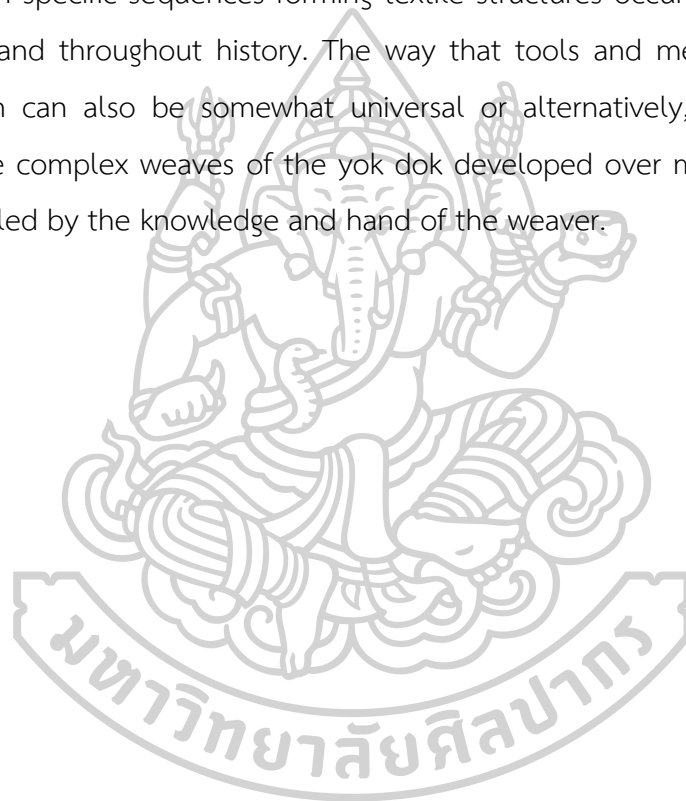


Figure 200: The Telephone Cables Wire &The Plastic Mesh

3.9 EXPERIMENTAL SET UP EMBROIDERY

The project has involved researching the warp and weft technique used by traditional Yok Dok craftspeople. It is a complex process which requires highly skilled weavers. In creator's point of view, for the weaving of each fabric depending on a draw frame. The researcher brings to the project a general perspective in textile studies, we can see some universal aspects of weaving. The movement of yarns interlacing in specific sequences forming textile structures occurs in many regions of the world, and throughout history. The way that tools and methods facilitate this construction can also be somewhat universal or alternatively, unique, culture to culture. The complex weaves of the yok dok developed over millennia are created and controlled by the knowledge and hand of the weaver.



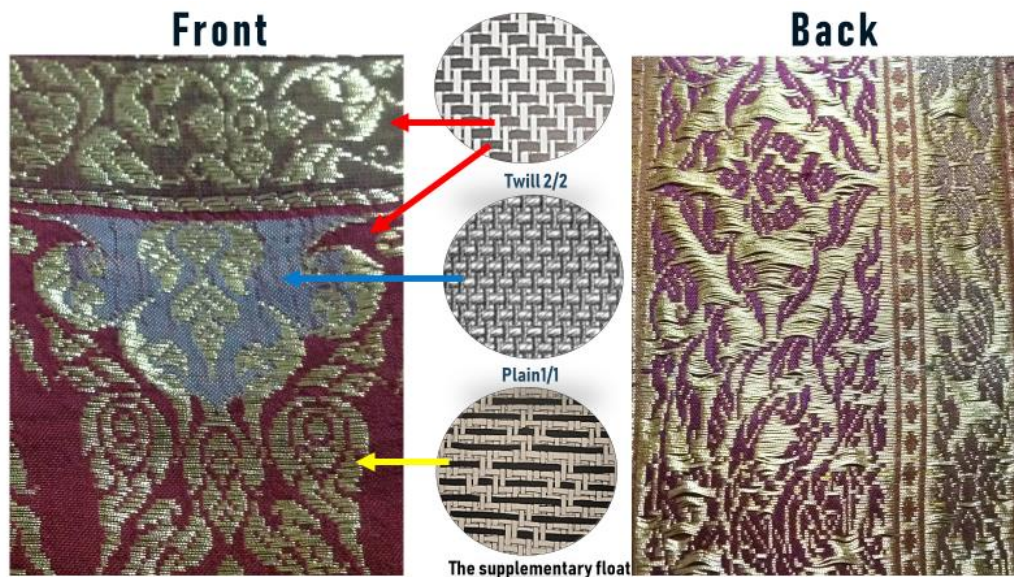


Figure 201: This is a diagram of the movement of yarns interlacing in specific sequences forming of Thai textile structures on a complex process front to be comparing in structure weaving new artwork with new kind of material.

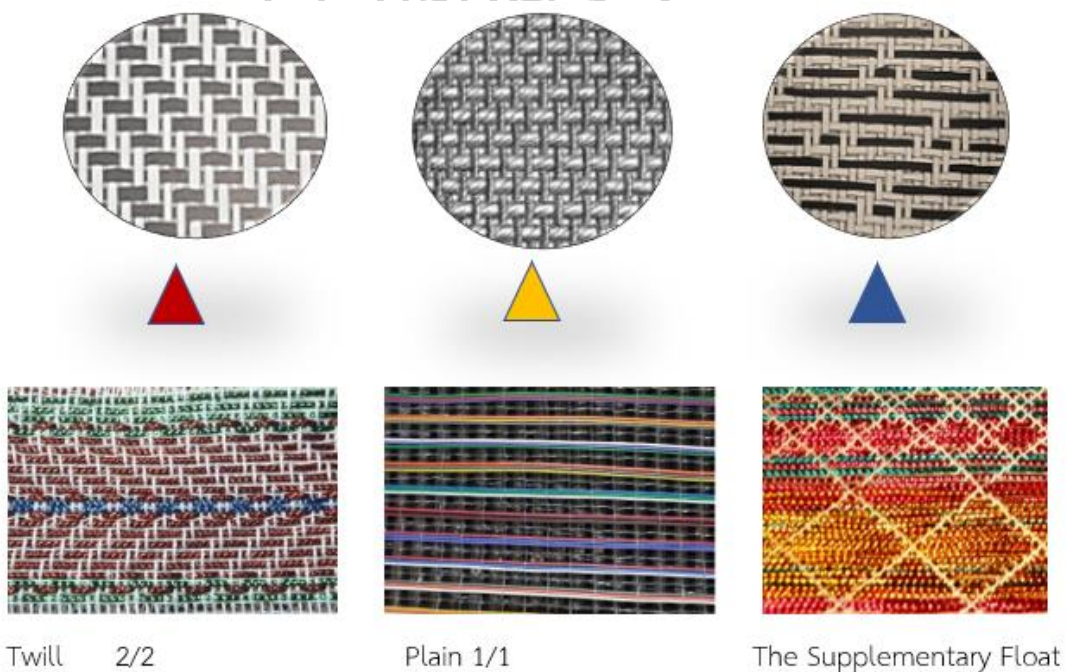


Figure 202: This is a diagram of the movement of yarns interlacing in specific sequences forming of Thai textile structures on a complex process front to be comparing in structure weaving new artwork with new kind of material.

3.10 THE EXPERIMENT OF WEAVING TOOLS

In latest development brocade weaving are produced for various outfits of divans, back, and seat of chairs, table coats, bags etc. But nowadays a lifestyle it changes in needs by the researcher had been found in the market of home furnishing get to use any materials. Then the researcher was trying to keep some Thai art to which in my weaving artwork.

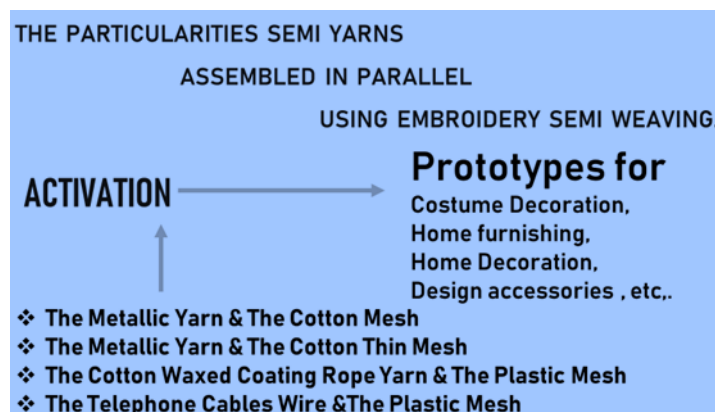


Figure 203: This is a diagram of the new kind of material for special properties same assembled in parallel usability in comparison semi yarn operation of contemporary weaving arts.



Figure 204: Then the researcher found an interesting was design by Varvara Fyodorovna Stepanova was a Russian artist associated with the Constructivist movement. It is nearly a pattern to work to weave the one on my work.

Varvara Fyodorovna Stepanova, Life and work.

Born 1894 in Kovno (now Kaunas, Lithuania) the peasant family. Studies at the Kazan School of Art, Odessa, where she meets Aleksandr Rodchenko whom she subsequently marries. Teaches at the Krupskaja Academy of Social (Communist) Education.

1922 makes collages for the journal Kino-fot. Designs set and costumes for Vsevolod Meyerhold's production of The Death of Tarelkin at the Theater of the Revolution. Makes a series of linocuts on the subject of Charlie Chaplin. Contributes to Berlin's First Russian Art Exhibition.

1923-28 closely involved with the journals LEF and Novyi Lef.

1923-25, with Lyubov Popova, becomes designer of textiles at the Tsindel (First State Textile Factory) near Moscow.

1924-25 professor of textile design at the Vkhutemas. 1925 contributes to the Exposition Internationale des Arts Décoratifs et Industriels Modernes in Paris.

1926-32 works predominantly as a book and journal designer, fulfilling major government commissions. 1930s-50s continues to paint, design, and exhibit.

1941-42 lives in Perm. 1958 dies in Moscow.

SOURCE: Biography from Monoskop.org, Stephen Ellcock Face Page, 19 October 2017..

The imagination weaving on computer Design



Figure 205 The imagination weaving on computer Design by Varvara Fyodorovna Stepanova theme style.

Choose to use the theme of the Russian artist Varvara Fyodorovna Stepanova, which is similar to the design inspired by the inspiration by Thai literature. Original, traditional. To make the perfect combination of acceptance. Contemporary Art with Thai Brocade Technique in Size 60 X 90 with new kind of material the Telephone Cables Wire & The Plastic Mesh.

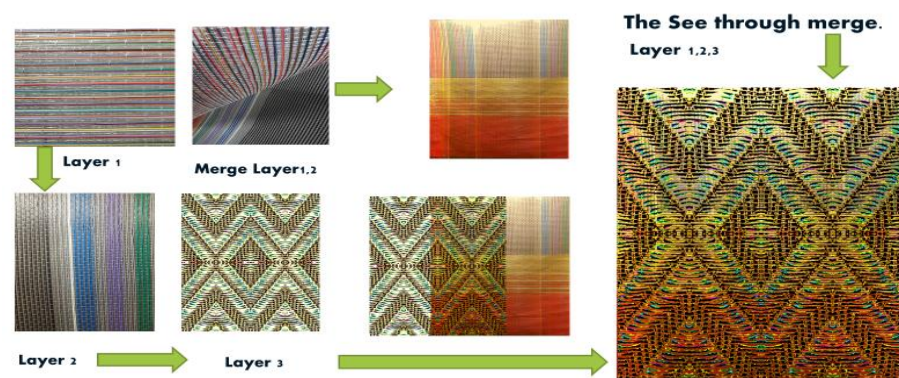


Figure 206: This is a diagram of the new design for special operation of contemporary weaving arts on computer Design by the researcher.

The results showed that the weave structure can be adapted by opening and closing the warp yarn on a draw frame. The particularities semi Yarns assembled in parallel using embroidery semi weaving. The prototype for Costume Decoration, Home furnishing, Home Decoration, Design accessories, etc. AS an example, the following is a technical thinking process in which the researcher thinks in order to make learning easier. By separating the weaving layer, we can see clearly the work of weaving.



Figure 207: To weaving a warps

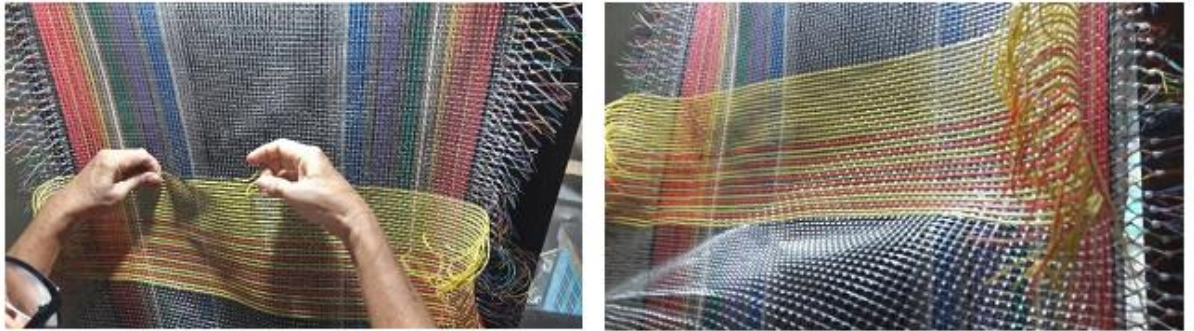
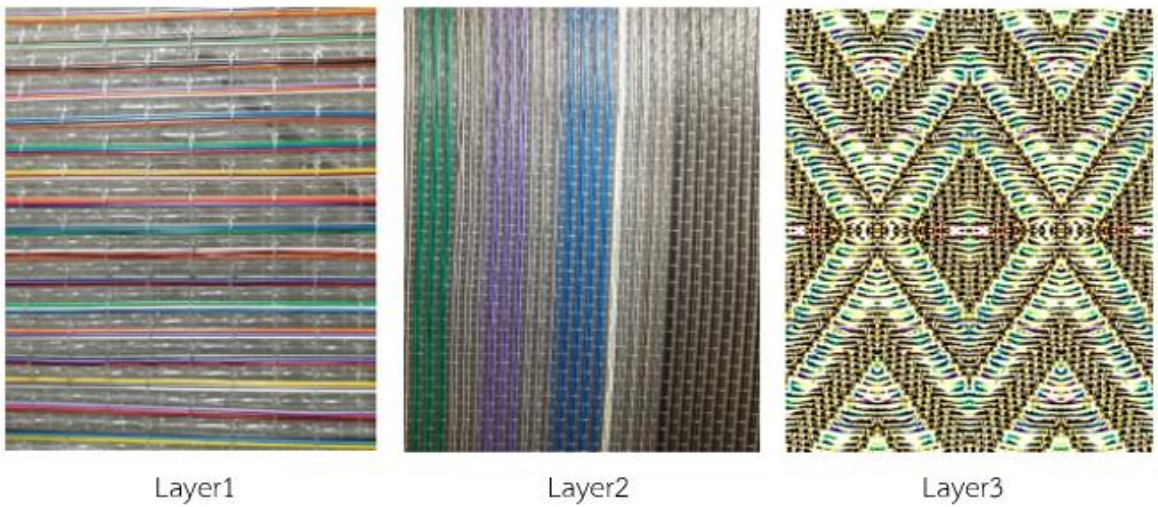


Figure 208: To weaving a weft working with handmade equipment process.



Layer1

Layer2

Layer3

Figure 209: To making a Layers

Three-dimensional fabric as a working plan with computer graphic prepattern design imagination. Layout by three layers of fabric and insert three layers use yarns (the Telephone Cables Wire & The Plastic Mesh) into the first layer and the second layer is the third layer. The plain pattern creates three-tiered stitching to create two patterns on the two-surface side.



Figure 210: a. Layer1 /Layer2+3



Figure 211:b. To merge Layer



Figure 212: A Prototype



Figure 213: The background of prototype for Decoration.

The computer graphic was to make a prepattern design imagination. It will be the experimentation setup embroidery for making Layers of a structure. For a new matter for a process of weavers, it is made a feeling if great can do this. Because we will control them by outside the loom and save expenses for the end yarn of warping. Everywhere can do it, by the primary first as just to learn to get to know a weave and plan for using the colorway of cloth all through an imagination pattern of motifs.

CHAPTER 4

DESIGN PROCESS OF WEAVING ART

4.1 Process of design

The concept of adoption

The preserved study findings revealed from data that information technology was very useful to manage local wisdom information and knowledge which allow researchers to access and practice weaving much easier. The reasons mentioned above is used as a guide to the objective of this study for researchers with innovative ideas in both artistic and academic in a concept of bringing this fascinating weaving process to create the art form. Its value added is much more than usual clothing which uses all types of cotton and chemical dyes, offer for the telephone cables line, plastic nets, plastic mesh. The wisdom of this finding is the process and design which is the first method of new weaving practice. As a researcher, it is expected that with this research in the roots and identifies what should be done to the acceptance most possible.

Textile Art has been my interest for such a long time. It can be used and applied in so many ways an art installation for should create work in the interior decoration or craft smaller pieces sold in galleries. Also, the waste material it can be taken to weave for product solid or soft and flexible. In the beginning, basic weave structure it was mainly the textile art from Pha yok dok which got my interest. Because of the technical knowledge weaving in the past, the scale could also the time that was put into this one special piece of work.

The synthesis is possible basic weave structure it was mainly the textile art from Pha yok dok for design Thai elements form and foreign form components are in harmony. An empirical thinking is required to find the way to combine elements from the two sources, Thai and foreign what is compatible or not. The only experimental result can tell, whether the synthesis is successful or not. As successful experiment guides the research direction, find the possible choices of designs, alterations of technique and material. For example,

Design Process

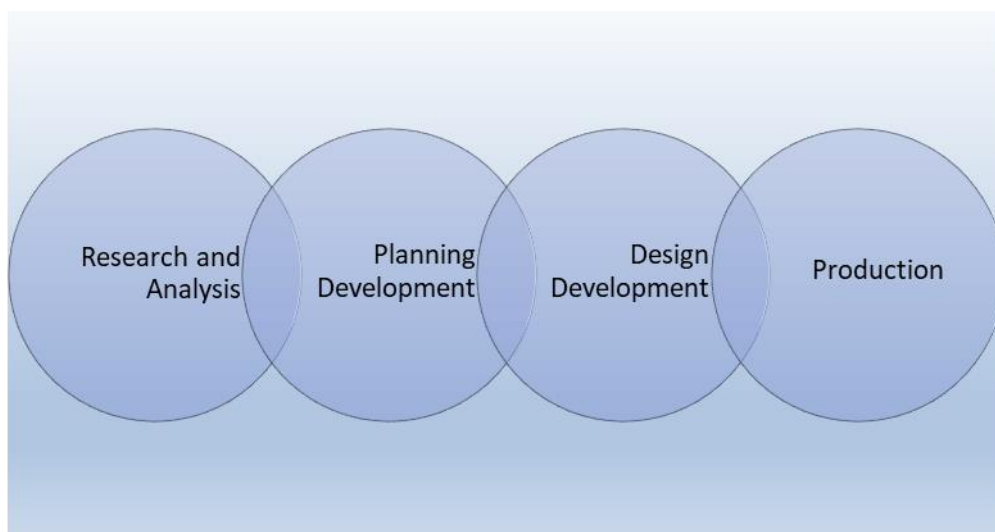


Figure 214:A diagram of Design process in major method.

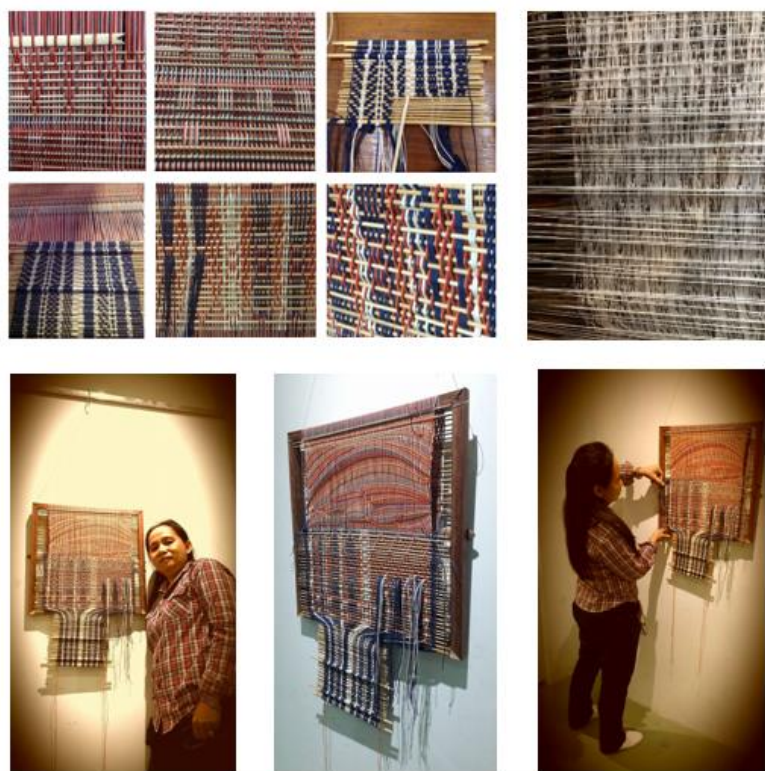









Figure 215:The Cotton Waxed Coating Rope Yarn insertion thread put the bamboo stick to take up weave same a string model on hanging of the surface the Supplementary warp weaving technique weave of motif pattern new image of contemporary Yok Dok

Source: From the results of the experiment 1st

Table 1 The results of the experiment 1st

Motifs 	<p>The different kind of weave use the point at which a beginner should start weaving depends on space of pattern weaving structure by basic weave pha yok dok motif appears clearly due to the sophisticate method of weaving.</p>
Texture 	<p>This shows a detailed of weave to take up texture that weaves from cotton waxed coating yarns on a long piece of the bamboo stick more durable compared to normally yarn. To insert supplementary weft yarns can take up from end yarn.</p>
Textile structures 	<p>Textile structure stitching are structured weave with The Cotton Waxed Coating Rope Yarn can be loosening for more density.</p>
Distinguish 	<p>It's cannot use to the textiles for apparel.</p>
The most suitable application	<p>To decorate the ornamental pattern is the most suitable.</p>
List of Equipment	<ol style="list-style-type: none"> 1. The Cotton Waxed Coating Rope Yarn  2. A long piece of the bamboo stick. 
The source of the work. 	<p>The process of discontinuous supplementary weft: weavers used a long piece of the bamboo stick to pick up the warp yarns, then, they added periodically a supplementary weft yarn under them from one side to another side along the direction of the weft yarns, continued through the width of Pha Yok Dok. To study used for take-up weave same a string model to hanging on a loom.</p>

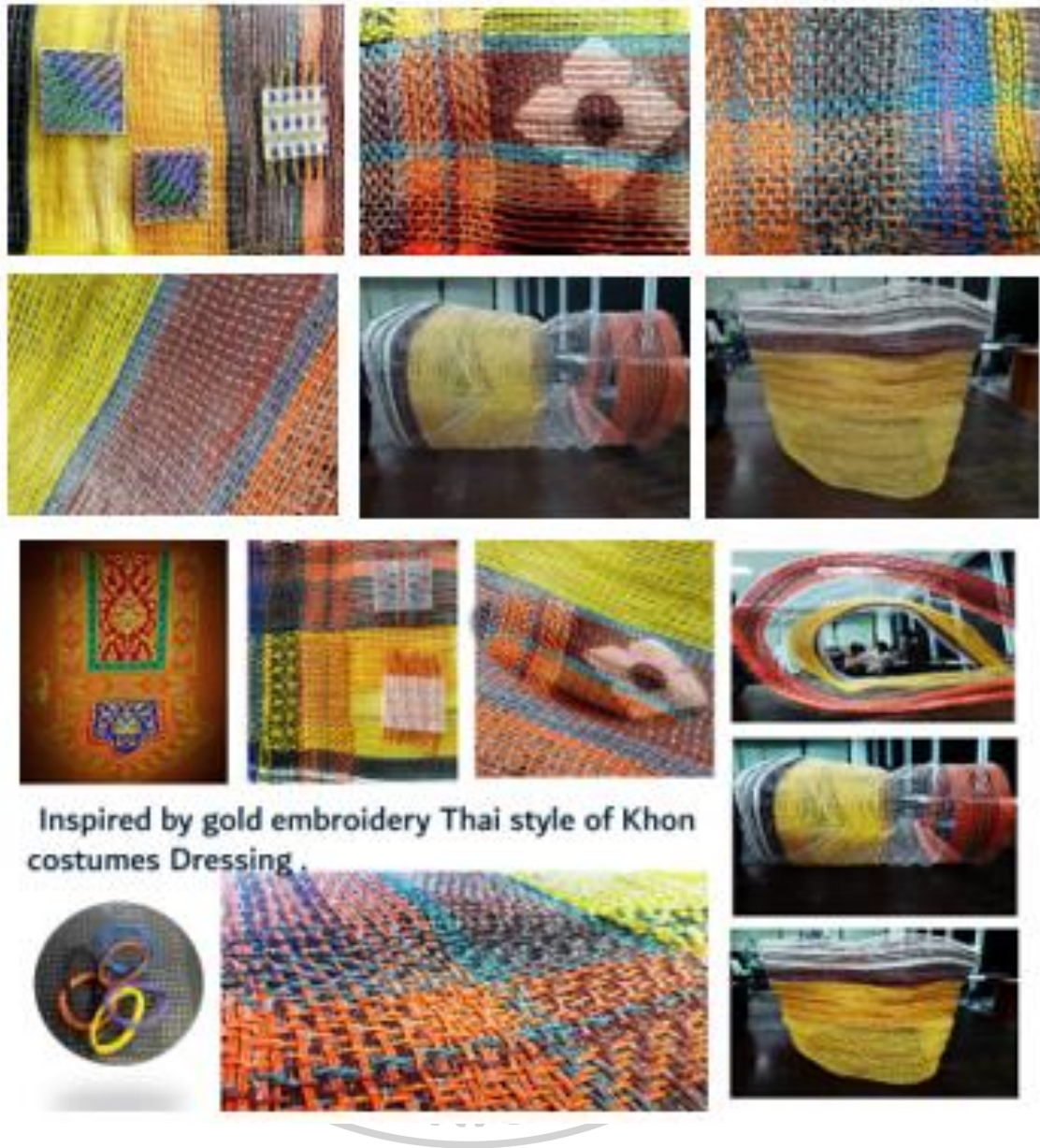

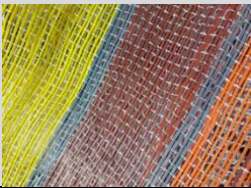






Figure 216: The Phone cables The Supplementary warp weaving technique weave of motif pattern new image of contemporary Yok Dok Source: From the results of the experiment 2nd

Table 2 The results of the experiment 2nd

<p>Motifs</p> 	<p>The different kind of weave use the point at which a beginner should start weaving depends on space of pattern weaving structure by basic weave pha yok dok motif appears clearly due to the sophisticate method of weaving.</p>
<p>Texture</p> 	<p>It shows textured details that weaved from the telephone cables wire on plastic mesh, which more durable compared to normally the telephone cable wire. To insert supplementary weft yarns can take up from plastic mesh.</p>
<p>Textile structures</p> 	<p>Fabric stitching is a woven structured with the telephone cable wire. It can be stronger, and give more density.</p>
<p>Distinguish</p> 	<p>It's uncommonly to the textiles for apparel.</p>
<p>The most suitable application</p>	<p>To decorate the ornamental pattern is the most suitable</p>
<p>List of Equipment</p>	<p>1. The telephone cables wire </p> <p>2. The plastic mesh </p>
<p>The source of the work.</p> 	<p>The process of discontinuous supplementary weft: weavers used the telephone cables wire on plastic mesh then, they added periodically a supplementary weft yarn under them from one side to another side along the direction of the weft yarns, continued through the width of Pha Yok Dok.</p>

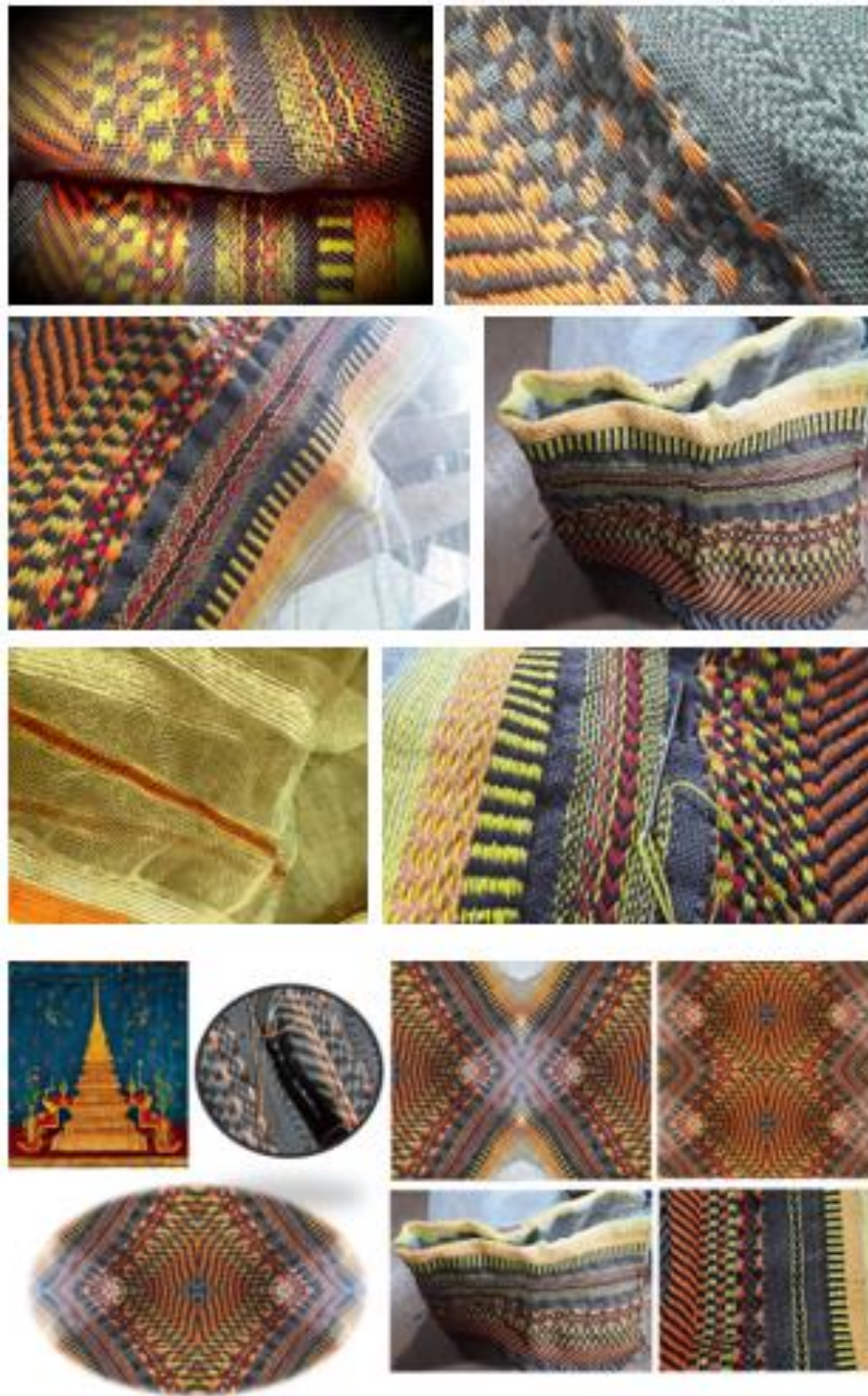


Figure 217: The Supplementary warp weaving technique of motif pattern, a new image of contemporary Yok Dok Source: From the results of the experiment 3th.

Table 3 The results of the experiment 3th








Motifs 	<p>The different kind of weave use the point at which a beginner should start weaving. It depends on space of pattern weaving structure by basic weave pha yok dok motif, which appears clearly due to the sophisticate method of weaving.</p>
Texture 	<p>This shows a textured weaving detail from cotton waxed coating yarns on plastic mesh more durable compared to normally cotton waxed coating yarns. To insert supplementary weft yarns can take up from plastic mesh.</p>
Textile structures 	<p>Fabric stitching is a woven structured with a cotton waxed coating yarn. It can be stronger, and give more density.</p>
Distinguish 	<p>It's uncommonly to the textiles for apparel.</p>
The most suitable application	<p>To decorate the ornamental pattern is the most suitable</p>
List of Equipment	<ol style="list-style-type: none"> 1. The cotton waxed coating yarns 2. The plastic mesh  
The source of the work. 	<p>The process of discontinuous supplementary weft: weavers used the cotton waxed coating yarns on plastic mesh then, they added periodically a supplementary weft yarn under them from one side to another side along the direction of the weft yarns, continued through the width of Pha Yok Dok.</p>



Figure 218: The Supplementary warp weaving technique weave of motif pattern new image of contemporary Yok Dok Source: From the results of the experiment 4th

Table 4 The results of the experiment 4th





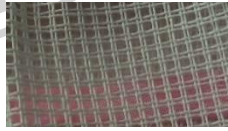


<p>Motifs</p> 	<p>The different kind of weave use the point at which a beginner should start weaving. It depends on space of pattern weaving structure by basic weave pha yok dok motif appears clearly due to the sophisticate method of weaving.</p>
<p>Texture</p> 	<p>This shows textured weaving details from the yarn in a metallized yarn made of an aluminum or pure silver and resin coating on polyester film or nylon film on the cotton mesh. It is more durable, compared to normally a metallized yarn. To insert supplementary weft yarns can take up from the cotton mesh.</p>
<p>Textile structures</p> 	<p>Textile structure stitching are structure weave with the cotton mesh. Fabric stitching is a woven structure with a metallized yarn. It can be moderate weight density.</p>
<p>Distinguish</p> 	<p>It's uncommonly to the textiles for apparel.</p>
<p>The most suitable application</p>	<p>To decorate the ornamental pattern is the most suitable</p>
<p>List of Equipment</p>	<p>1.The cotton mesh</p>  <p>2. The metallized yarn</p> 
<p>The source of the work.</p> 	<p>The process of discontinuous supplementary weft: weavers used the metallized yarn on the cotton mesh then, they added periodically a supplementary weft yarn under them from one side to another side along the direction of the weft yarns, continued through the width of Pha Yok Dok</p>



Figure 219: A metallized yarn made of an aluminum or pure silver and resin coating on polyester film or nylon film. The Supplementary warp weaving technique of motif pattern new image of contemporary Yok Dok Source: From the results of the experiment 5th

Table 5 The results of the experiment 5th





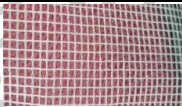









<p>Motifs</p> 	<p>The different kind of weave use the point at which a beginner should start weaving. It depends more on space of pattern weaving structure by basic weave pha yok dok motif appears clearly due to the sophisticate method of weaving.</p>
<p>Texture</p> 	<p>This shows textured weaving details from the yarn in a metallized yarn made of an aluminum or pure silver and resin coating on polyester film or nylon film on the thin mesh more durable compared to use high density a metallized yarn. To insert supplementary weft yarns can take up from the thin mesh.</p>
<p>Textile structures</p> 	<p>Fabric stitching is a woven structure with a metallized yarn. Can be stronger and weigh, more density.</p>
<p>Distinguish</p> 	<p>It's uncommonly to the textiles for apparel.</p>
<p>The most suitable application</p>	<p>To decorate the ornamental pattern is the most suitable</p>
<p>List of Equipment</p>	<p>1. The thin mesh. </p> <p>2. The metallized yarn </p>
<p>The source of the work.</p> 	<p>The process of discontinuous supplementary weft: weavers used The metallized yarn on the thin mesh then, they added periodically a supplementary weft yarn under them from one side to another side along the direction of the weft yarns, continued through the width of Pha Yok Dok</p>



Figure 220: A metallized yarn made of an aluminum or pure silver and resin coating on polyester film or nylon film. The Supplementary warp weaving technique of motif pattern new image of contemporary Yok Dok Source: From the results of the experiment 6th

Table 6 The results of the experiment 6th

<p>Motifs</p> 	<p>The different kind of double Twills weave use the point at which a beginner should start weaving. It depends more on space of pattern weaving structure by basic weave pha yok dok motif appears clearly due to the sophisticate method of weaving.</p>
<p>Texture</p> 	<p>This shows textured weaving details from a metallized yarn which made of an aluminum or pure silver and resin coating on polyester film or nylon film on the thin mesh. It is more durable compared to use low density normally a metallized yarn. To insert supplementary weft yarns can take up from the thin mesh.</p>
<p>Textile structures</p> 	<p>To running stitches, take to embroidery yarns in tulle of the thin mesh. Fabric stitching is a woven structure with a metallized yarn. Can be thin and light, with low density.</p>
<p>Distinguish</p> 	<p>It's uncommonly to the textiles for apparel.</p>
<p>The most suitable application</p>	<p>To decorate the ornamental pattern is the most suitable</p>
<p>List of Equipment</p>	<p>1. The thin mesh </p> <p>2. The metallized yarn </p>
<p>The source of the work</p> 	<p>The process of discontinuous supplementary weft: weavers used the metallized yarn on the thin mesh then, they added periodically a supplementary weft yarn under them from one side to another side along the direction of the weft yarns, continued through the width of Pha Yok Dok</p>

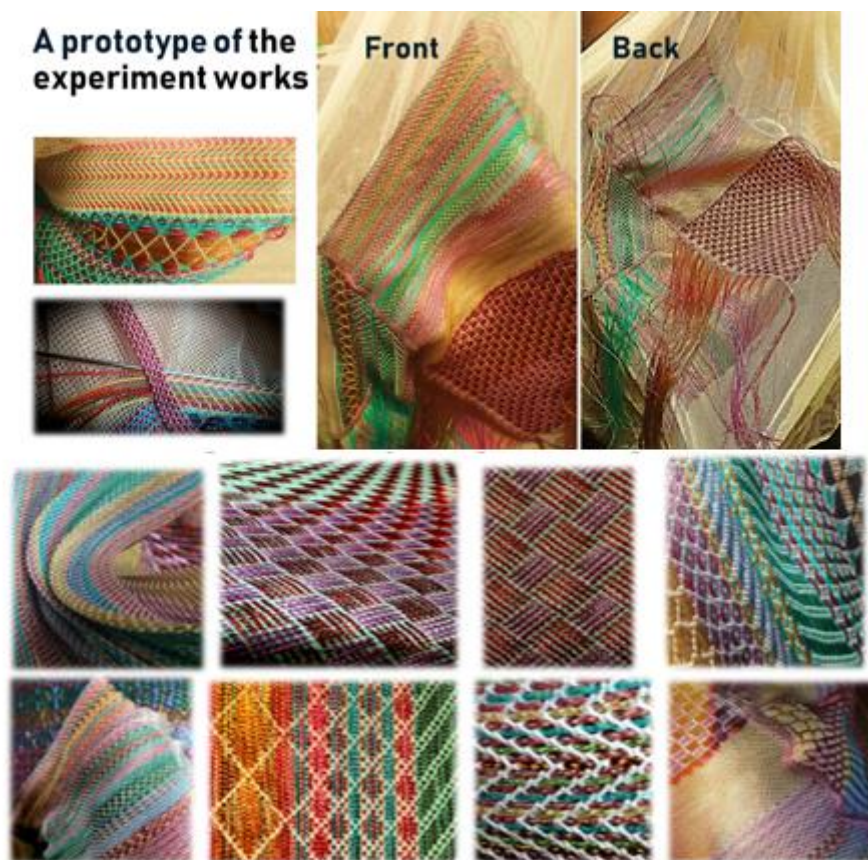

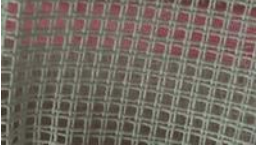

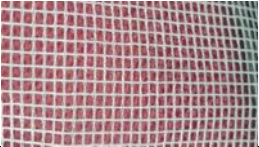




Figure 221: The summary, all types of fiber of cotton and yarns chemical dyes, the thin mesh, plastic mesh. By past Multi Culture for Tradition Culture, The old Original, Innovative Technology, to Contemporary art.










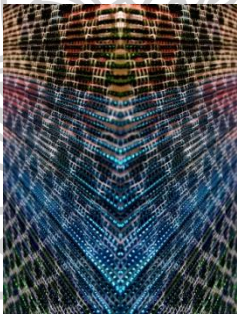

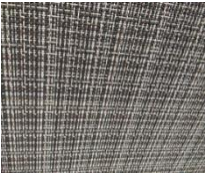


Table 7 The summary, all types of fiber.

Aesthetic of Fiber	Main Structure	Practice of Weave
<p>The Cotton waxed coating</p> 	<p>The main is disadvantage the fabric is thick and fluffy. It was difficult to maintain production in the long term.</p>	<p>Inconvenient : The cotton mesh</p> 
<p>The Metallized yarn</p> 	<p>The surface is beautiful and durable.</p>	<p>Appropriate : The thin mesh</p> 
<p>The telephone cable wire</p> 	<p>The main is to disadvantage the hardness and weight. But it was the surface is beautiful and durable can be produced in the long term.</p>	<p>To suit : The plastic mesh</p> 



4.2. Research and Development

Table 8 Any form, material and integration in the type of device.

List of Equipment	The cotton waxed coating	The Metallized yarn	The telephone cable wire
Roots of the work	The bamboo sticks 	The thin mesh 	The plastic mesh 
Difference of work	The plastic mesh 	The thin mesh 	The plastic mesh 
The suit of the work	The plastic mesh 	The plastic meshes 	The plastic meshes 
Job summary	The cotton waxed coating 	The Metallized yarn 	The telephone cable wire 
	The plastic mesh	The thin mesh	The plastic mesh

4.3 Design Development

In the final stage, make an evaluation to study the viewers' tastes, choice and trend keep in mind that we are living in the world of pluralism, it is one in the sense of sharing cultural information but not trend and taste. What is accepted as a beautiful color combination in Japan may not be acceptable in the Scandinavian work. So, an artist/ designer has to accept the contemporary multiple preferences. In my research objectives found that of grow an idea and art form in.

1. Can be done the implementation of textile design principles motif of Yok Dok textile design.

2. Used the pattern of the contemporary fabric is to the synthesis of Yok Dok textile design.

3. Just the invents weaving art inspiration from Yok Dok textile design.

4. Succeed in conference propose the pattern design and process of weaving art be done the methodology of the research and the example the practice based of weave.

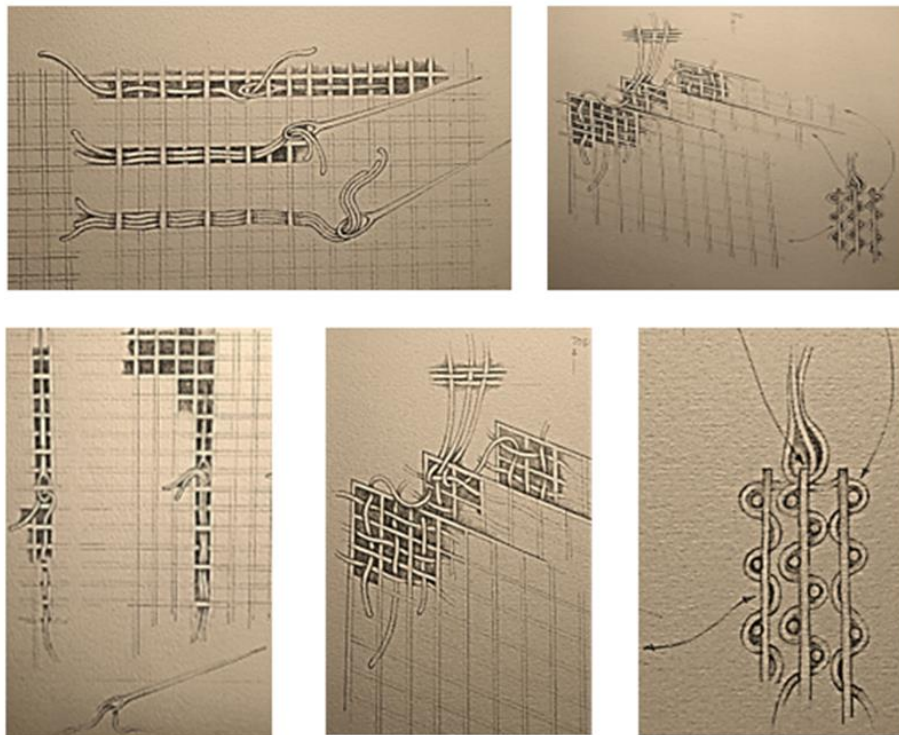


Figure 222: The methodology of the research and the example: The practice based of weave.

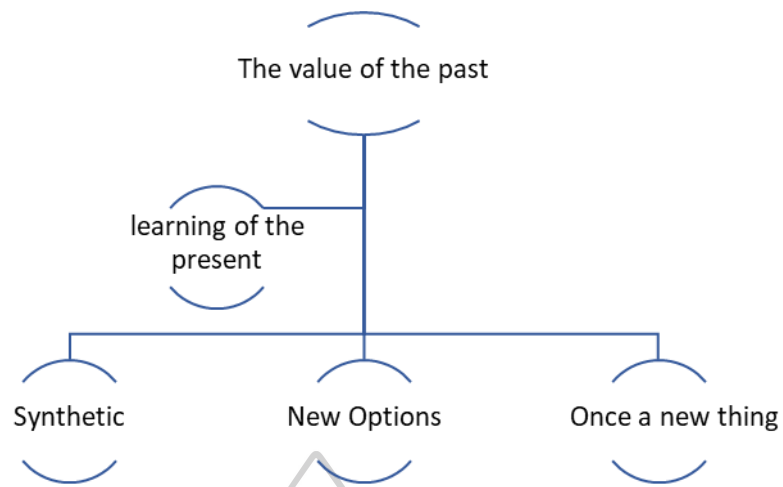


Figure 223: Diagram of Education of Yok dok in research

1 <i>Brocade all the world</i>	2 <i>Brocade of Indonesia</i>	3 <i>Brocade of Malaysia</i>	4 King no.4 & Brocade of India	5 King no.5 & Brocade of Cambodia
16 WEAVERS	Dr. Weerathana 17 <i>Yok Dok</i>	Mr. Schle 18 <i>Jacquard</i>	Dr. Weerathana 19 <i>Yok Dok</i>	6 King no.6 & Brocade of Thai
15 IN THE 21 ST	Mr. Schle 24 <i>Jacquard</i>	25 Postmodern Massupa	Mr. Schle 20 <i>Jacquard</i>	7 King no.7 & Brocade of Thai
14 CENTURY	Dr. Weerathana 23 <i>Yok Dok</i>	Mr. Schle 22 <i>Jacquard</i>	Dr. Weerathana 21 <i>Yok Dok</i>	8 King no.8 Brocade of Thai & Western
13 ESTABLISH A	12 FOUNDATION	11 FOR A NEW	10 GENERATION.	9 King no.9 Brocade of Thai Yok Dok

Figure 224: Diagram of my glow idea and art form in research

There is a diagram of my glow idea and art form in research to collecting fabric information at the international level the value of the past that must be known for the learning of the present. Synthesis of new options of new things to create a foundation for the next generation, the success found is an experimental result. New technic used in weaving, pattern design with a motif of the image, the approach of

contemporary as described is different from the traditional design. This is planning of creating new things that come from the traditional basis. Comes out in the form of job creation from the analysis of the new theory. Which will be utilized by Establish a foundation for a new generation of weavers in the 21st century to be Postmodern version.

To make learning easier and more understandable. If the two concepts by Dr. Weeratham Taragoonngernthai who kindly advise me about the Thai royal court in a fashion and Mr. Schle Wood-thanan, who kindly advise the researcher about Jacquard and all the weave structure on section a machine loom. It can be combined with alternation and the possibility of further development of the new factor. The researcher is proud of the cultural heritage of the country, its status as a Thai tradition of art. What is created is new, simplifying, it is inspiring the traditional art form of weaving art. They can take to control of the weaving workshop. To express themselves and create masterpieces that helped form some of the founding principles of postmodern style in continuous design.

No. 25 = Target of researcher

No. 17,18,19,20,21,22,23,24 = Survey data for Just to use income

No. 1-5, 6-9,10-13,14-16 = A data of other that had been in the past

In the case of Yok Dok, necessity is detailed in detail of researcher is to found that. For a document, this showed the while there are countless instances of support and goodwill between Thailand and the United States, the focus of this exhibition is the gifts exchanged at historic moments and the stories they tell of two worlds uniting on the basis of generosity and mutual esteem.

Over time, the initial tokens of wealth and prestige evolved into presents based also on the sharing of knowledge and culture. Each gift is a prism that reflects its time and place, and much like the Kingdom of Thailand and the United States of America demonstrates both a reverence for tradition and an eye to the future.

Source: QUEEN SIRIKIT MUSEUM OF TEXTILES, MARCH 21 - JUNE 30, 2018, Grand Palace, Na Phra Lan Road, Phra Nakhon, Bangkok 10200, greatandgoodfriends@america.gov

Bringing silk, gold, silk and gold thread into a special gift to this world-class country. Thus as search for allowing to experience the value of Thai handicraft work that has created a civilization in the past as shown in this evidence In this research, we have studied the way and mercy from Her Majesty the Queen, who revived utilise an important identity for Thailand and foreign artists, combined with the weavers Thai craftsmanship of identity of beauty that is based on the theory of philosophers so all that is.

Her majesty queen Sirikit: the artistic value in the Thai fabric.

Immanuel Kant: the theory of beauty according to the taste of yok dok. The frame and criteria, a judgement of the taste is aesthetic because of the true definition of idea be beauty

Clive Bell: the theory of complex shapes. Art as a form.

John Dewey: the theory of materials and tools. Art as experience.

Kajiwara Koho: the theory of learning from a master teacher.

Charles Jencks: the theory of forgetting the old knowledge to embrace new knowledge.

Van wolfen, gijs: the theory of technology that rips away from what has been known.

Silk and Gold Thread Hip Wrapper for Royalty for the one of gift

This phaa yok (metallic brocade) textile with mat mii (ikat) embellishment, woven in an Indian-style but likely produced in Nakhon Si Thammarat in southern Thailand,, is decorated with the phum khao bin (“heads of rice”) pattern in the main field and three borders at each end, both features that indicate this textile was intended for royalty.

Source:<https://www.greatandgoodfriends.com/gallery-textiles?fbclid=IwAR1Jmli2fzrzknQIPBCLSO6XnMJZdCwndg8bdWT-WtKFi2leijl15wKiWms>



Figure 225: Silk and Gold Thread Hip Wrapper for Royalty Gift from King Chulalongkorn to the Smithsonian Institution, 1876 95.25 x 304.8 cm Courtesy of the Smithsonian Institution, Department of Anthropology; E27129-0; Photo by Jim Di Loreto

Source: QUEEN SIRIKIT MUSEUM OF TEXTILES, MARCH 21 - JUNE 30, 2018, Grand Palace, Na Phra Lan Road, Phra Nakhon, Bangkok 10200, greatandgoodfriends@america.gov

Silk Hip Wrapper for Nobleman for the one of gift

Two characteristic Southeast Asian techniques were used to make this phaa nung (hip wrapper): mat mii (ikat), in which the pattern is dyed onto the weft threads before the textile is woven; and the supplementary gold weft brocade called phaa yok. Similar to court nielloware, the textile design, particularly the two bars bordering the ground of the silk, indicates it was intended for a nobleman. Textiles in this style were worn exclusively within the court.

Source: <https://www.greatandgoodfriends.com/gallery-textiles?fbclid=IwAR1Jmli2fzrzknQIPBCLSO6XnMJZdCwndg8bdWT-WtKFi2leiJl15wKiWms>



Figure 226: Silk Hip Wrapper for Nobleman Gift from King Mongkut to President Franklin Pierce, 1856 96 x 319 cm Courtesy of the Smithsonian Institution, Department of Anthropology; E83-0; Photo by James Di Loreto and Lucia RM Martino

Source: QUEEN SIRIKIT MUSEUM OF TEXTILES, MARCH 21 - JUNE 30, 2018, Grand Palace, Na Phra Lan Road, Phra Nakhon, Bangkok 10200
[,greatandgoodfriends@america.gov](mailto:greatandgoodfriends@america.gov)



CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

The Thai cultural heritage, the researchers is looking for the source of inspiration as well as tracing to the ancestral art and cultural heritage of the past. It is the means to find the cultural or national identity self. The most important idea is what are the strength of precious cultural heritage from the past, as a starting point to developed the practice-based research.

In conclusion, researchers plan to introduce the weaving technique. Design and creativity from the synthesis of multi-cultural differences to work with materials through contemporary art. Get to know of Pha Yok Dok custom for its durability and suitability for the next generation.

The second element comes from other cultures, it is foreign origin. The researcher has to prove herself she has a broad mind and far vision to adopt ideas and elements from something outside the Thai sphere, it can be those of other Asian, European, American or others. The challenge is difficult in the case of the third element, the synthesis.

The Supplementary of Yarns weaving techniques begun in the past (more than a century), it is possible that the contemporary style can be made from the old technic. In the present the artwork in the form of a suspension or temporary installed is the means of presentation. The researcher propose that it is not necessary, to show to the public only the fabric alone can reflect many aspects of idea and knowledge, such as the cognitive aspect of technic and material, social and historical significances, aesthetic and artistic and the affective aspect of taste or beauty appreciation, as you'll see in the next step in the research. The research will bring the above information to make the maximum amount of cultural and commercial benefit.

Rasa Suntrayuth (2018) They sometimes use craft products to add more cultural values to their own products and make them more unique and interesting, as they already known that the wicker work products from their community are quite well-known for their customers.

Rasa Suntrayuth (2018) The activity was mainly a fun idea generation, storytelling and listing what their ideas were. As they are all new generation, their design brief was more to

change up the group of target audience to be a little bit younger than it used to be. Lastly, the group of designers and artists from different backgrounds were working on their personal interests and specialties. The outcomes from this group were totally varied. There was some artwork, sculptures, furniture design, product design, and also interior design. Somporn, Udom (1987) Belief, tradition and culture have been drastically influenced the role of hand-woven textiles in Thai society. However, the recent change of technology and attitudes has decreased that role.

Chunthone, Vitawan (2014) mentioned that “With the onslaught of modernization, the art of Jok or Chok textile was almost lost in the Tai Yuan life style”, meaning that the role and the uses of hand-woven textiles were completely changed. That is, in the past the purposes of weaving textiles were to worship holy spirits, to give to their lovers or to spare good deeds for their next lives. In the present, however, traditional textiles are woven for sale or to earn extra income. The researcher found that a lack of specialists and a lack of materials and weaving tools are main limitations among people in weaving traditional Jok textile.

5.2 EXHIBITION DESIGN

The researcher design art form: It can be defined as. To present a new perspective on contemporary textile design to create new patterns, a guideline according to the principles of important technic. That researchers have invented, it is important for weaving to create new and interesting textiles. Use different types of mesh to insert the yarn. Or any other material, like the yarn, according to the properties of the mesh, to work a dimension related to the beauty that should create work in the interior decoration. Newly crafted or value-added for apparel. As the researcher had presented 6 examples, a common aesthetic, and artistic found.

- 1 What is so special about the piece beauty in shining of thread on all the mesh.

- 2 How can it reflect weaving art practices have a regional historical significance within Thai local craft history. In today’s contemporary technologically fueled world, textile artists are finding new ways to work with new materials, creating a dialog with the past and reflecting on the significance of contemporary culture on our lives today.



Figure 227 Exhibition Thesis of Yok Dok from the art thesis .

5.3 SUGGESTION

As the researcher had presented 6 examples, a common aesthetic, and artistic found "The beauty of creating a pattern on a mesh." The research found that insert the yarn onto a mesh or netting to the researchers was an important factor in enabling the weaver to create a new textile design. By applying string, passing the mesh structure and netted threads, this unconventional device as a substitute to conventional weaving technique, the researcher can work on every kind of material. The technique is applicable to all product wherever he wants. Now not be to weave on loom tool.

Fabric stitching is a woven structure with a metallized yarn. Can be stronger and flexibility. It's not just the textiles for apparel. To running stitches, take to embellishing yarns in tulle of the thin mesh. The researcher identity/ artistic personality the beauty of the pattern is that the identity in the special patterns. Of the 21st-century textile is different from the origin of weaving depending on the area of use and more on the area of the weaving structure art. Weaving properties the basis seems to be obvious because the weaving method is not complicated.

The value of textiles to promote handmade textiles is comparable to contemporary art, from wire-to-wire on plastic fibers that are woven yarn inserts can be taken up from a plastic mesh. The hypotheses of this study were to present new

perspectives of contemporary textile design, to create new motifs fix it up with invented by the researcher was the significant factor which enabled weavers to create new and attractive woven textile structures. By adding the worthiness that features as follows.

1. The advanced design for 2020 which sector to bring is focusing on techniques Pha Yok Dok in Surin. The golden fabric is located in the Surin Province, Thailand. The notable characteristic of the silk is its use of the interweaving of gold threads into the fabric. Yok Dok Brocade silk is one of the key handicrafts in the north-eastern part of Thailand. The different regions use different the facilities are both Asia and Europe share a common weaving art tradition. The project has involved researching the warp and weft technique used by traditional Yok Dok craftspeople. It is a complex process which requires highly skilled weavers. In the creator's point of view, for the weaving of each fabric depending on a draw frame. The researcher brings to the project a general perspective in textile studies, we can see some universal aspects of weaving.

The movement of yarns interlacing in specific sequences forming textile structures occurs in many regions of the world, and throughout history. The way that tools and methods facilitate this construction can also be somewhat universal or alternatively, unique, culture to culture. The complex weaves of the yok dok developed over millennia are created and controlled by the knowledge and hand of the weaver. The comparative of the string model Thai and India Brocade Weaving apparatus Thai drawloom and India Jacquard loom. This is the apparatus to use for the same kind of fabric in the process of weaving a brocade or Yok Dok cloth. They are the difference in operation but the outcome will be amenable together.

2. Tracing for artistic and cultural root as part of the project, the researcher plans to design a series of fabric artworks based on the inspiration of Thai literature. Original, traditional. Remind of a pass the inspired from Dressing Gods & Demons Costume for Khon. Thai Fence of the ceremony in the form of motifs. Thai painting picture, Thai handicraft ELEPHANT MESH PAGE for the sacred ceremony of Thailand.

The process of discontinuous supplementary weft: used the metalized yarn on the thin mesh then, they added periodically a supplementary weft yarn under them

from one side to another side along the direction of the weft yarns, continued through the width of Pha Yok Dok. To be making assembled in the parallel opening and closing the warp yarn on the thin mesh using be a draw frame. Inspired by gold embroidery Thai style of Khon costumes Dressing Gods & Demons Costume for Khon in colors and Thai Fence (Ratchwat)of the ceremony in form of motifs. The process of discontinuous supplementary weft: used the telephone cables wire on the plastic mesh using be a draw frame. Inspired by gold embroidery Thai style of Khon costumes.

The metalized yarn on the thin mesh using be a draw frame. Inspired by hanging on Thai floral garland to making for Elephants ornament called ELEPHANT MESH PAGE on the window for the sacred ceremony of Thailand. The metalized yarn on the thin mesh using be a draw frame. Inspired by gold embroidery Thai style of Khon costumes. The metalized yarn on the thin mesh using be a draw frame. Inspired by Thai painting picture on the door panel of the temple. The cotton waxed coating yarns on plastic using be a draw frame. Inspired by Thai painting a picture a Pagoda form on the temple wall.

3. The international synthesis is Princess Dara Rasmi (1871 - 1919) She was one of the princess consorts of Chulalongkorn, King Rama V of Siam. While the multi-level design was used for the member of the royal family and the high-ranking nobles, while the single-level one was used for the upper class or the wealthy persons of the palace. And her various relative is worn Pha sin in the Tai yuan style different dressed garment. Precious cloth of the royal court of Burma the name of the fabric means interlocking tapestry weave fabric used in the shuttle to weave up to 100 shuttles. She is the inventor of this fabric with the made up of two styles of cloth Lanna to made up of Pha sin made up of a Burmese luntaya Acheiq of the fabric page is actually to stitching for a piece of cloth with a bottom part of Tai yuan Teen jok technique in silk with gold - tinsel thread. A part to expressive not the central Thai style of Lanna residents.

5.4 RECOMMENDATIONS

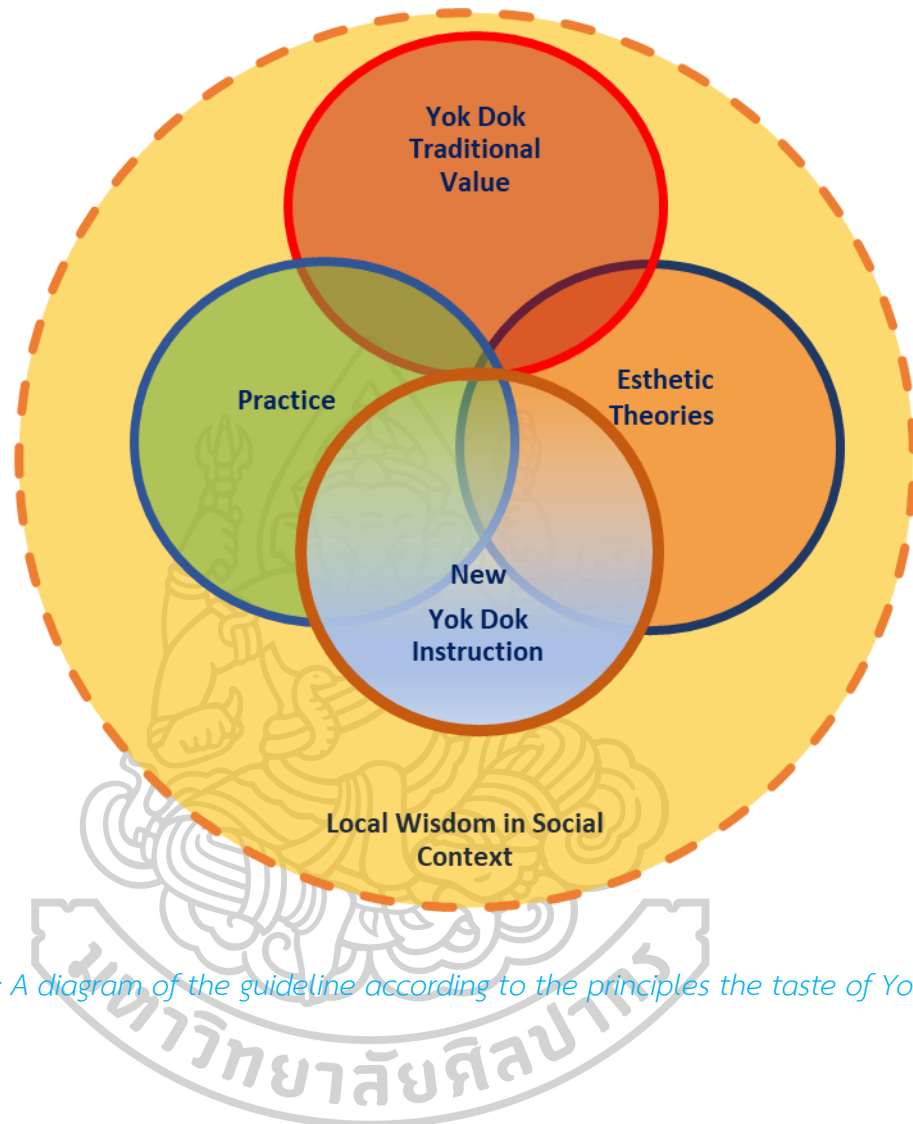


Figure 228: A diagram of the guideline according to the principles the taste of Yok Dok.

In each circle showcasing the importance of Yok Dok Traditional Values; Is Practice With the theory of beauty consistent as a guideline according to the principles of important people in the Esthetic Theories, including.

Immanuel Kant: the theory of beauty according to the taste of yok dok.

Clive Bell: the theory of complex shapes.

John Dewey: the theory of materials and tools.

Kajiwara Koho: the theory of learning from a master teacher.

Charles Jencks: the theory of forgetting the old knowledge to embrace new knowledge.

Van wolfen, Gijs: the theory of technology that rips away from what has been known.

Her majesty queen Sirikit: the artistic value in the Thai fabric.

The circle around the biggest dash in local wisdom in the social context. The study of the arts and crafts in the textile fabric is important to the technician, according to Jon Dewey's theory, must know the truth, so it can be both fiber material, dyeing, pattern weaving process, to the sales in the consumer taste market. In this research, emphasizing in the process of creating work in a way to learn about the value of Queen Sirikit's wishes. Queen in His Majesty King Bhumibol Adulyadej, he realized that the traditional Thai dress in everyday life, the influence of western culture is lost. There is no national costume as a result, therefore, His Majesty has the initiative that costumes should show Thai identity to many countries. And will use this opportunity to present the artistic value in the Thai fabric and jewelry through the Thai dress which later called "Thai Royal Dress" by applying from Dressing of ancient women.

Local wisdom in social context; The circle around the biggest dash is local wisdom in the social context. Based on an interview with Dr. Weeratham Thagunngenthai, an expert weaving yok dok of Ban Chan Soma, Surin province. Found that the current importance to the context of creating knowledge to teach local villagers. Who had previously woven yok dok, such as Nakhon Si Thammarat. Which used to weave the ancient pattern. That has the special characteristics of weaving, is the use of a large loom, must use 3-4 weaving people.

As a cloth to lift the gold-silver writhing throughout the entire piece, with delicate detail, is a fabric woven. Send to the royal Bureau, especially in the past Has been completely lost Due to rare materials. Expensive and no labor. The new generation lacks patience in training. Still, Her Majesty decided to revive it there as well. In 2007. Therefore Dr. Weerathama re-established brocade-weaving, teaching the demanding technique. To the group of experienced SUPPORT Foundation weavers from the region of Nakhon Si Thammarat.

This was used as a sample for the most advanced today, SUPPORT members weavers to copy by Ban Neun Thammavong and Ban Trok Khae in Nakhon Si Thammarat, who began by weaving gorgeous silk and gold brocades. Their first examples came off the loom in 2011. Thus, royal court brocade is once again bringing income to residents of Nakhon Si Thammarat province.

Dressing God Demons Costume for Khon, Museum Textiles Queen Sirikit, 2016. P.,55.

Yok Dok Traditional Values; The nature of the Yok Dok will be discussed art, crafts, historical values, national level.

From an interview with Mr. Piriyaiphong Worakitthanakun ancient weaving specialists. Explained that in the previous study, it was learned from the fabric that the teacher had woven in the same piece to be a model. Therefore, is a way to learn, remove lessons by copying yarn count by warp yarn and weft yarn from fabric structure obtained from the prototype.

And then experiment with weaving with hand loom. This method creates difficulties for learning. Those who do not have true intentions and flair will not be able to understand the process. But nowadays advanced technology camera and computer have a good role in data collection, therefore learning is more effective. Searching for knowledge of the wisdom of Pha Yok Muang Nakhon weaving from old fabrics.

Therefore, using photography methods Removed the pattern with the program graph table. In the computer Applied table as a woven fabric structure, set to 1 square grid graph instead of warp yarn 1 weft yarn 1 line.

From the above method, the researchers also found the problem of the graph table that could not show the size, form, pattern, and complexity of the weaving process. Including not being able to provide the actual size of the fabric that will be used in each fiber of different sizes, so there should be an easy-to-understand method that is easy the addition of learning.



Figure 229: Mr. Piriyaiphong Worakitthanakun and his method to create an issue for new learning by fix the difficulties from the past.

PRACTICE; Refers to the practice of transferring the process of making techniques

The practice of transferring the process of making techniques in the past is the knowledge of wisdom from the fabric. Which is a specific technique, therefore only the weaving group. That is a local weaving profession group local identity. According to the way of life, living and customs is an important element. Pushing for learning the discovery of objects. Such as silk thread, gold yarn, cotton yarn and synthetic fibers used in weaving is a garment. That has cultural beauty and can create various patterns.

Continuing to change according to age and utility is a fabric that has been praised since ancient times. That beautiful, according to the example of fine fabrics is preferred by the upper-class. Woven craftsmanship is the top of the weavers that can be obtained from trading with foreign countries. The resulting in the dissemination of the arts and culture. The natives received knowledge of how to weave and dress. Influenced by India and China as a model of folk weaving. Which

made the natives know the weaving plain cloth and Yok Dok fabrics. That have been modified to change the weaving pattern.

To be unique without being imitated all India and China as for the Yok Dok weaving. The colorful patterns began to weave in the late Ayutthaya period. From the prisoners of war held at Nakhon Si Thammarat to subdue the rebels. And encouraged the prisoners who were weavers from Sai Buri to be teachers, villagers, women, and grandchildren. There is a pattern of weaving of Malay people combined with previous knowledge, applied to Thai patterns. And developing complex woven processes with the ability of weavers to improve their culture.

Combined with the material is expensive gold is a fine, exquisite fabric. Is the reputation of the country in the reign of King Rama II. Until the reign of King Rama V was a prosperous era. In the royal court, there is a luxury living. Yok Dok cloth is very much needed by the royal court. Because it is the cloth that the King gave to important people. The noble level and the high courtiers are used to wear at the time of the meeting.

ESTHETIC THEORIES; various theories in which relevant studies have resulted. Influencing change.

EDUCATION FOR THE NEW GENERATION WEAVER.

Immanuel Kant: A Theory of Aesthetic Judgment: From the Critique of Judgement is used as the key reference to construct theory or concept of the taste of Yok Dok. The following are keyword or item to expand to taste of Yok Dok:

1.Universality

Therefore, whoever is well trained well-educated will make the same subjective judgement. A critic of any nationality or culture background if he has to spend sufficient time to study Yok Dok performed can read the taste of this Thai traditional. He accords to the objective find as a reason for his delight regarding. What he may also presuppose in every other person. The result is that the judgement of taste must do so apart from universality attached to objects, there must be coupled with it a claim to subjective universality.

2.Delight

If beauty can be explained in a judgement of taste the universality of delight is only represented as subjective. A universality which does not rest upon a concept of the object in no way logical but aesthetic but only one that is subjective universality the expression general validity, not to the cognitive.

3.Judgement

To make the Finality, in General, were then, not the cognition of an object merely, but the object itself (its form or real existence) as an effect. Kant explained the faculty of desire, so far as determinable only through concepts, object, or state of mind, or action not necessarily presuppose the representation of an end. The sole foundation of the judgement of taste is the form of the finality of an object (or mode of representing it). For the judgement of taste is an aesthetic and not a cognitive.

4.Subjective

Is the right mode of the judgement of taste. Now this relation is coupled with the feeling of pleasure. A judgement of taste which is uninfluenced by charm or emotion (though these may be associated with the beautiful,) and whose determining ground, therefore, is simply finality of form, is a pure judgement of taste. At this point, we can understand that a definite concept is not pure. The pure judgement of taste is independent of charm and emotion. Every interest vitiates the judgement of taste and robs it of its impartiality. This is especially so where instead of, like the interest of reason, making.

5.Harmony

Investigation of the question of the relative priority in a judgement of the taste of the feeling of pleasure and the estimating of the object. Harmony means all element can get along successfully harmony can take place when tasting the beauty. The quickening of both faculties (imagination and understanding) to an indefinite, but yet thanks to the given representation, harmonious activity, such as belong to cognition generally, is the sensation whose universal communicability is postulated by the judgement of taste.

6.Unity

The judgement of taste is entirely independent of the concept of perfection. What is formal in the representation of a thing, i.e., the agreement of its manifold with a unit. The weaver with high aesthetic and synthetic scenes with chooses her own goal. Ina well to the case of Yok Dok a good train critic looking at a Yok Dok design color pattern yarn all of them Unity beautiful. By using imagination and understand he can see the harmony of design.

- The motif patterns
- Fiber material
- Weave structure
- The prototype
- Loom

Clive Bell: It more exact to call these combinations and arrangement of from that provoke our aesthetic "significant form," but "significant relation of form," at last, receiving the aesthetic emotion, to be continually pointing out those parts, the sum, or rather the combination, of which unite to produce significant form, is the function of criticism. A third interruption has to be met. "Are you forgetting about the color?" someone inquires. Certainly not; my term "significant form," included an n combination between form and color is an unreal one. To make "beauty" the object of the aesthetic emotion, we must give to the word on over- strict and unfamiliar definition. This "something" when we find it in a young woman, we are apt to call it "beauty." We live in a nice age. With the man-in-the-street "beautiful" is more often than not synonymous with "desirable"; the word does not necessarily connote any aesthetic reaction whatever.

John Dewey: Experience means everything they had to learn, take and apply to solve the problem. "Experience occurs continuously, the interaction of live creature condition is involved in the very process of living Oxford, art as an endeavor. Dewey does not deny RG Collingwood," the object leads to the notion that expressing is merely a process of discharging personal emotion." Machine, material and artwork the quality of a work of art is sui generis. Because the manner in which general material is rendered transforms it into a substance that is fresh and vital.

Thus, in time come to establish as part of the acknowledge to be established as part of the acknowledged world. The machine can be used, but “the manner of saying it is individual. the quality...sui generis... general material is rendered transformed it fresh and vital. This is what it is to have a form. It marks a way of envisaging, of feeling, and of presenting experienced matter so that it most readily. The "end" is reached; one would be glad, as a rule, to get the result without having to employ the means. They are but a scaffolding. Color to painting as tone to the music.

We cannot ignore philosophy “Esthetic experience imaginative. This fact, in connection with a false idea of the nature of imagination, also interact ... and imagination. The uniqueness of the aesthetic experience. The philosophies of aesthetics are many and diverse. It is impossible to give even a resume of them in the chapter. But criticism has a clew that, if it is followed, furnishes a sure guide through the labyrinth.

We can ask what element, in the formation of experience, each system has taken as central and characteristic. If we start from this point, we find that theories fall of themselves into certain types and that the particular strand of experience that is offered reveals, when it is placed in contrast with the aesthetic experience itself, the weakness of the theory. For it is shown that the system in question has superimposed some preconceived idea upon experience instead of encouraging or even allowing the esthetic experience to tell its own tale.

Kajiwara Koho: also had traditional apprenticeship planned to apprentice but during an illness, he realized that he needed a lot more training and decided to stay on. after ten years, he became independent.

We can learn something from the Japanese expert, starting from what seems very out of date and old fashion but that is the way building up his strength to be a postmodern leader.

Robert T Coffland, Contemporary Japanese Bamboo Arts, Chicago: Art Media Resources, 1999.

Charles Jencks: According to Jencks many or most ideas, the right method of the past seems to be wrong in the postmodern world. "It is why Post Modernism will

last for the foreseeable future why some of the most committed Post Modernists are those who have left the high church. High church? Religion? Are these adequate, well, yes and no.

Van Wolfen, GIJS: Inspiration for innovations successful innovation is a matter of will power. the innovator has to be open. they have to be able to imagine things that others cannot.

GIJS Van Wulfen, Inspiration for Innovation, UK: BIS Publisher, 2018.

HER MAJESTY QUEEN SIRIKIT: is the consort of His Majesty King Bhumibol Adulyadej (Rama IX) of Thailand, has been the creation of the SUPPORT Foundation (Originally the Foundation for the Promotion of Supplementary Occupations and Related Techniques), established in 1976. And all a part of patterns motif of her dress wearing the Thai Chakri style of national dress, in Thai royal court in a fashion Rattanakosin period Thai Brocade: Prae – wa: The project is supported and promoted

By the Bureau of the Royal House Hold and Her Majesty the Queen's Foundation The examples of Thai brocade still owned by the royal family and reviewed by the research were beautiful but, for the most part, too fragile to use. The researcher had been acknowledging therefore, Her Majesty commissioned new brocade design based on older examples. (The project is supported and promoted by the Bureau of the Royal House Hold and Her Majesty the Queen's Foundation.) Which there are all Her Majesty's Queen Sirikit new dresses distinctive were the all fabrics from the Thai weavers they were made.

Her Majesty's Queen Sirikit new dresses from In Royal Fashion "THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND", Bangkok, Queen Sirikit Museum of textiles,2013. P.75.

As explained, Immanuel Kant's article is used as the number one "Universality" Kant 's first keyword It is about how the frame and criteria, judgement of the taste of Yok Dok Should stand on. The next, Clive Bell, Art as Form. It stands over John Dewey, "art as experience " experience, as the 1st keyword

In the case of Dewey, he does not deny form, feeling, expression and imagination (that can be found in RG COLLINGWOOD and other authorities e.g. Ruskin Wolfflin etc.)

But for Dewey, the experience is the most important elements, it serves as steel frame binding taste, idea beauty, judgement and criteria of judgment of taste together into one strong unit.

Therefore, portion number three, the case of Yok Dok prophet from Thai expert and the researcher's artistic experiment is one stand firmly on the well-constructed foundations of Kant, Bell, and Dewey.

Therefore, the construction of Thai art education as portion #2 and the final stage, the contemporary version of yok dok in future is not too far.

New yok dok instructions; The results of the study analyzed that How to create a structure, how to create arts and crafts, how to new yok dok.

To be generally accepted. There are also other terms that are used and mean technical text, as well. Performance textiles, functional textiles, engineered textiles and high-tech textiles Hometech, Mobiltech, Protech, Clothes etc., I thought it was just in time, making at all peace of work must more between my practice weaving art. By applying string, passing the mesh structure and netted threads, this unconventional device as a substitute to conventional weaving technique, the researcher can work on every kind of material.

The technique is applicable to all product wherever he wants. without using the conventional method on the loom to weave. It is the means to overcome the limitations of conventional weaving technique and making inspiration enable artist and designers to make possible art and design works of many new types. Inspired by traditional Thai weaving: call Yok Dok craftsmanship, the colorful Winter 2018 embroidered looks like brocade requires more than of work and over with its relief - effect by "massupa" is.

- Save time
- Lead to creativity without wastage.
- Lower cost
- See-through
- Successful

The research is an exploration to find the true aesthetic, strength and weakness of the tradition of Yok Dok of the past. Results of the research, practice-based to find alterations of material, weaving technique may not yet be the complete design of the 21st-century Yok Dok.

The thesis is dedicated to Her Majesty Queen Sirikit, whose far sight vision proposed the most important creative idea for the international design world, east meets west.

The researcher had explored the aesthetic of the precious Thai cultural heritage, the Yok Dok. As we have understood it's aesthetic and artform thus the appropriate principle and practice of current Thai art education can be done. Designing the twenty-first century Yok Dok is not an easy job, even though it is not yet possible to accomplish but the study has built a strong foundation for reaching such a goal in the near future. For young generation and the craft education for the new weaver.

BODY OF KNOWLEDGE

1 The body of knowledge obtained:

1.1 Some tradition, as in the case of Yok Dok was once almost forgotten and disappeared, but a creative person with profound understanding can select it, modified and use it as the source of inspiration for contemporary art and design.

1.2 In order to take the distant art tradition and bring back its life, one needs to understand its true nature, aesthetic or taste and art form. It is necessary that modification is required. The contemporary version of the modified an art of the past need not only further artistic experiment to innovate its contemporary version but also proper art education role to raise conscience and reinforce value among the new generation of artist designer and critic.

1.3 As far as issues of 21st-century postmodern is concerned with the research it means

1.3.1 For the social context, the traditional art tradition issue of, high art reserved only for king, queen m prince or princess but nowadays, a well-known model, movie star and celebrity will take the artwork, adopt its value and use it in

international circle. The experiment on aesthetic and artistic modification, choices of materials, tool and technique for production can be changed or expanded, for example, the Yok Dok cloth, once used only as material for the royal costume but now a new choice for Khon player wardrobe

1.3.2 Elements from spheres and taste are in harmony. As you found a successful synthesis, try alterations and make a further intervention. And finally, evaluations, listen to another person's criticism. That the world is one as a meeting place of various ideas, cultures or tastes. Each individual or group develops his unique criteria of criticism. What is the taste in one circle can be an anti-taste in another? The body of knowledge obtained. In my either inspired of color or geometric forms and also by materials like without using the conventional method on the loom to weave. It is a woven structure with a metalized yarn in with easy access to all my materials. Generally, the yarns to make a composition of the colors first before I put the Use different types of mesh to insert the yarn. Or any other material, like the yarn, according to the properties of the mesh, to work a dimension related to the beauty that should create work in the interior decoration. Newly crafted or value-added for apparel

The mechanic, according to John Dewey's theory, must know the truth to be able to do both materials, fibers, dyes, weaving patterns, to sales in the consumer tastes market. decoration or that's similar apparel all in use.

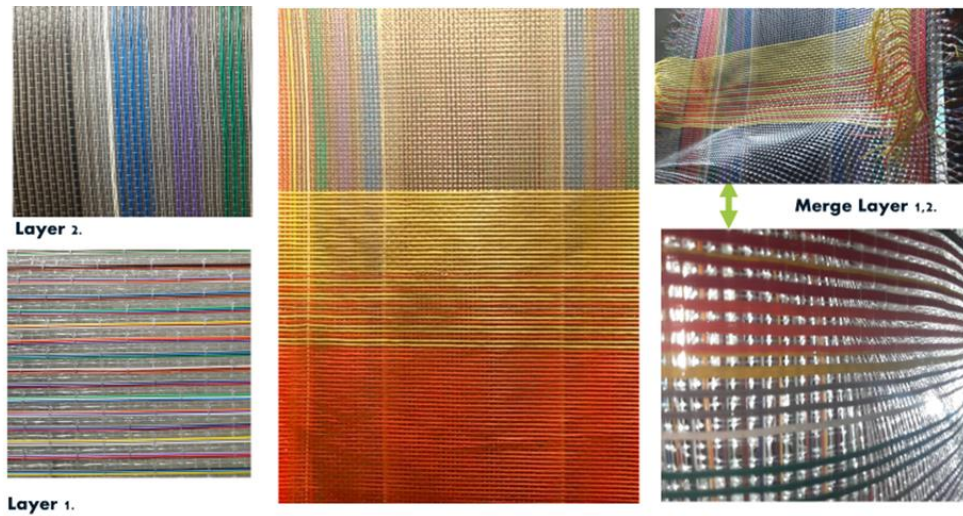


Figure 230: A prototype of the experiment works of research is concerned with how the Yok Dok techniques and patterns can be adapted in contemporary fabrics. The See-through merge. Layer 1,2.

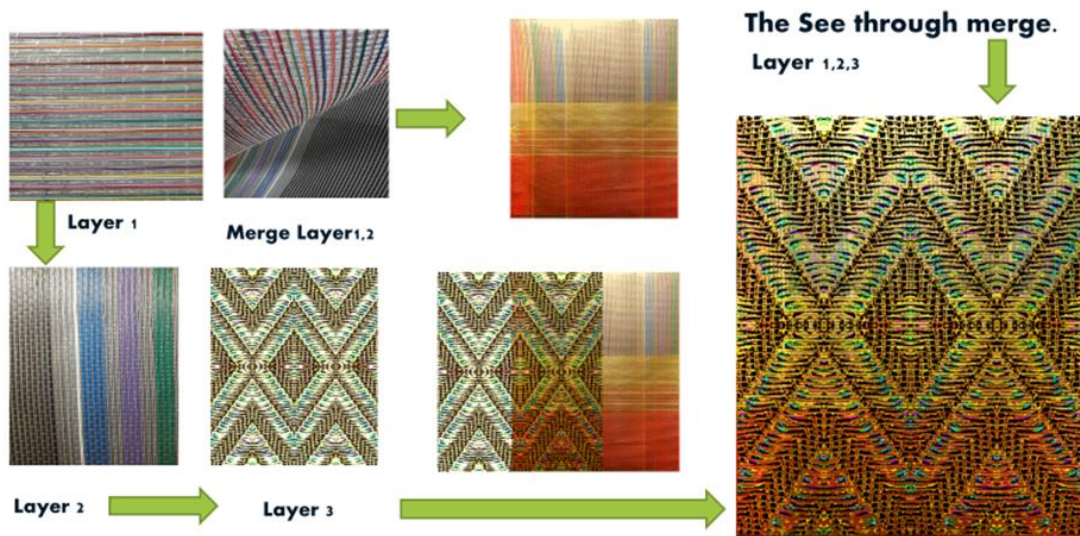


Figure 231: A prototype of the experiment works of research is concerned with how the Yok Dok techniques and patterns can be adapted in contemporary fabrics. The See-through merge.

Layer 1

Layer 2

Layer 3

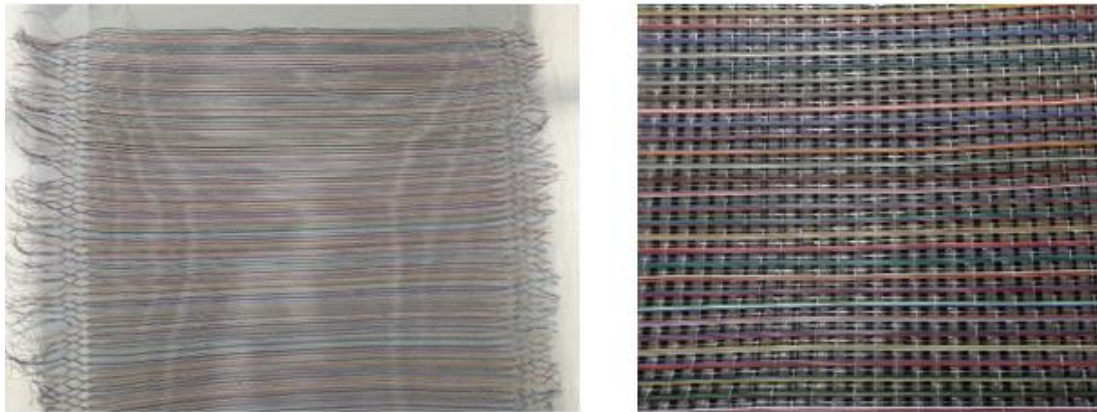


Figure 232: The See-through of Layer 1 by the telephone cable wire and the plastic mesh.

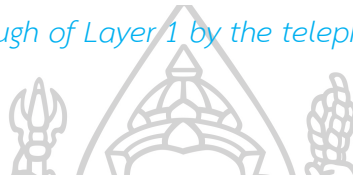


Figure 233: The See-through of Layer 2 by the telephone cable wire and the plastic mesh.



Figure 234: The See-through merge of Layer 1 and 2 by the telephone cable wire and the plastic mesh.



Figure 235: The See-through merge of Layer 1 and 2 by the telephone cable wire and the plastic mesh.



Figure 236: The See-through merge of Layer 1, 2, 3 by the telephone cable wire and the plastic mesh.

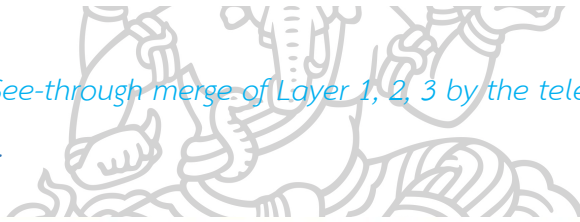


Figure 237: The See-through merge of Layer 1, 2, 3 by the telephone cable wire and the plastic mesh.



Figure 238: The See-through merge of Layer 1, 2, 3 by the telephone cable wire and the plastic mesh.

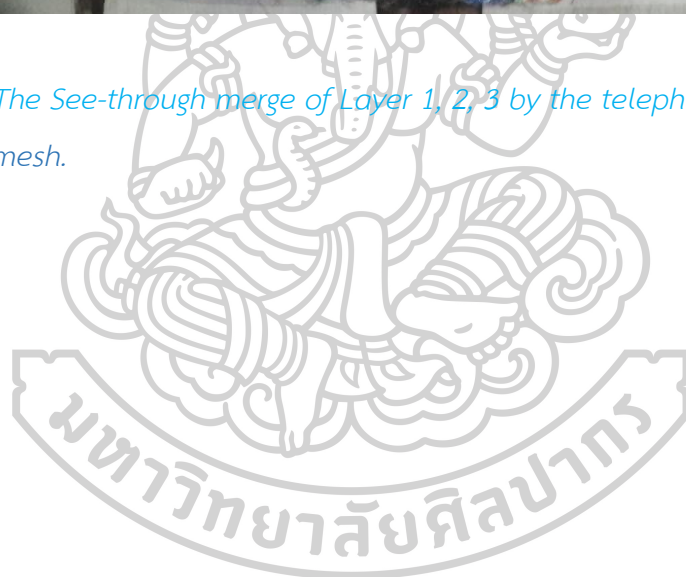




Figure 239: The final merge of Layer 1, 2, 3 by the telephone cable wire and the plastic mesh.

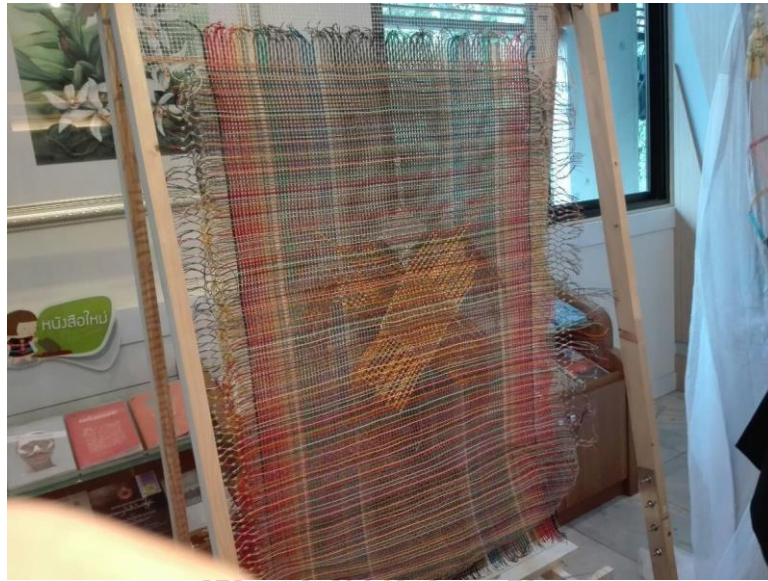


Figure 240: The Exhibition Thesis of Yok Dok of the postmodern.

The first idea is to design the pattern of Yok Dok a new one, but after the experiment, it was only a survey of experiments. That a different effect from the usual yok dok weaving and interesting in a modern form called postmodern. And can be a compass for those interested in studying. To be used as a creative process of art and at the same time.

- The researcher will have ongoing research to go to the textbook because there is currently no writing about lessons on weaving techniques for those interested Therefore is the source of this study

- The thesis gives the meaning in that

1. In theory, you must know more about the beauty of yok dok.
2. Must to know the theory and practice of good Thai and Western together for as a new form.
3. The destination point of postmodern still, need to be in the future.

Finally, the body of knowledge found is:

1) The different kind of weave uses the point at which a beginner should start weaving depends more on space of pattern weaving structure by the basic weave.

2) Pha yok dok motif appears clearly due to the unsophisticated on aslant tulle of the thin mesh

3) hand-woven textiles to be on the same level as the Fine Art

Separate and choose the specific material, why that specific, why it fits best and why other material cannot.

How to weave in the beginning, I wasn't interested at all plastic mesh and the thin mesh I thought it was boring, just to making warp and weft on the loom only. Then I could never have thought it would become my favorite technique.

Since I only had to do weaving on the course I got to learn it well and soon realized that I didn't have to use thread or yarn in the warp and I can put any kind of material between that weave from the telephone cables wire on gains plastic mesh more durable compared to normally the fabrics. To insert supplementary weft yarns can take up from the plastic mesh. The thin mesh a detailed of weave to make up texture that weaves from the yarn in a metalized yarn made of an aluminum or pure silver and a resin coating on the polyester film or nylon film on the thin mesh more durable compared to normally a metalized yarn. To insert supplementary weft yarns can take up a motif pattern of making.

Even though this thesis has not yet given the final design for the Postmodern Yok Dok but the research has sufficiently probed into three key items:

1) The history of the development of Yok Dok from 19th to 20th and the first decade of the 21st century;

2) The results of experiment suggesting the possible art education program, art form, the aesthetic and artistic concept of the 21st century international version of Yok Dok and

3) The body of knowledge, the theoretical framework to use Kant's taste concept to derive the Yok Dok aesthetic, its art form and technique enabling future designer to carry on the future Yok Dok masterpiece.

Pieces of creative work in the world never made from a single person but accumulation of knowledge and experiences as Thai weavers and designers spent years making the Thai weaving tradition continued and developed, foreign weaver such as also have the roles. Immanuel Kant its idea made the establishment of aesthetic concept, the framework of the Thai weaving art possible, Clive Bell gives insight to the definition of the Yok Dok art form and John Dewey, experience theory

guides the means how to make dream and imagination turn into reality. Dr. Weeratham, comment and interview enable the researcher to add sufficient detail of necessity issues and domain to construct the new theory.

The most important person this thesis is dedicated to is her majesty Queen Sirikit of Thailand. The royal taste of the choice of Thai tradition weaving art has opened the great opportunity for the almost forgotten long tradition of Thai weaving art. The cloth of the past returned to life. It is no more only ancient cloth for noble ladies in museum but birth of the modern Thai fashion. The national identity as reflected in Thai costume is revealed to the world.

Queen Sirikit's royal taste and selection as designed by French couturier Pierre Balmain and the textiles created, Urai Lueumrung (1920- 1987), Her Majesty's dressmaker as to longtime, executed them show the Thai identity. Many neoclassic Thai designers and the Seven from Eight Styles, which are known in Thai as Thai Rajani Yom (Royal Favour) include ensemble suitable for the informal, semi-formal and formal occasions. Such as Thai Chakraphat, Thai Siwalai, Thai Dusit, Thai Chakri, Thai Boromphiman, Thai Amarin, Thai Chitralada are all the modern synthesis between classic Thai and modern element combined to make the world know that Thailand has the profound root and pride of their cultural heritage.

The Queen 's Royal taste and choice make Thailand beknown to the world with the pride of the Thai weaving art tradition reflecting Thainess, the identity to be seen through the weaving art of Thailand.

REFERENCES

- Anni Albers. (2017). "On Weaving, New Expanded Edition, The Josef and Anni Albers Foundation Published by Princeton University Press, Princeton and Oxford."
- "Arts of Asia Queen Sirikit Museum of Textiles, A Royal Textile Museum for Thailand, May – June.". (2014).
- Boontiang Suchanart. (2016). " "Pa Saew : Original of Designs on Pa Prae-wa," KIU International Journal of Humanities and Social Sciences."
- Carl Marx . (1954). " "Capital: A critique of political economy. Vol. 1: the process of production of Capital," London: Lawrence & Wishart."
- Chinese Brocade. Retrieved 12-06-2015 <http://www.cnaca.org/english/info/201253/4-20.shtml>
- Chunthone Vitawan. (2014). "The art of contemporary Jok textiles: The integration between craft and creative design" Silpakorn University, Veridian E-Journal International Volume 7 Number 4 January – June. ."
- Doris Goemer. (1986). "Woven Structure and Design, United Kingdom, March."
- Dorothy K. Burnham. (1980). "A Textile Terminology Warp & Weft" by the Royal Ontario Museum. Suntrayuth, Rasa (2018) "Service Design for Creative Craft Community and Product Development: A Case Study of Phanat Nikhom District, Chon Buri Province, Thailand" Silpakorn University, Veridian E-Journal International Volume 11 Number 4 January - June."
- "Dressing God Demons Costume for Khon, Museum Textiles Queen Sirikit ,." (2016).
- FIT FOR A QUEEN: HER MAJESTTY QUEEN SIRIKIT'S CREATIONS BY BALMAIN., B. S. I. p. c. l., P.12. (2016).
- George Dickie, R. J. S. e. (1977). "AESTHETICS A CRITICAL ANTHOLOGY, ST. MARTIN'S PRESS New York.P. 643-687."
- Grace Inpam Selvanayagam. (1990). "“Songket: Malaysia’s woven treasure” Oxford University Press Singapore, Inc., New York . ."
- "Great and Good Friends, Historic Gifts between the Kingdom of Thailand and the United States of America, Trevor Merrion and William Bradford Smith,

- International Cultural Promotions Limited. Bangkok, P.29.. (1818 - 2018.). "#GreatAndGoodFriends., Textiles.". (20-04-2019).
- Handicraft, S. p. a. p., Lester Griswold, Colorado Springs, Colorado.,. (1951).
- Highness Princess Maha Chakri Sirindhorn (16 March 2012). (2013). " In Royal Fashion" THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND, Bangkok, Queen Sirikit Museum of textiles."
- "The history of weaving part 1- Asia." (01-06-2017).
- " An illustrated book of Burmese Court Textiles "Luntaya acheiq" Hans Peter Ahrens, Punvasa Kunlabutr, Lampion, Amarin Printing and Publishing, Bangkok, ." In Royal fashion "THE STYLE OF HER MAJESTY QUEEN SIRIKIT OF THAILAND", B., Queen Sirikit Museum of textiles.,. (2013).
- "INDIAN TEXTILES, John Gillow, Nicolas Barnard, Traditional Textiles by Thames & Hudson Ltd, United Kingdom, London (1991) First paperback edition P.162,163.". (2014.).
- IRENE EMERY. (1965). "The Primary Structures of Fabrics: New York, January ".
- Jane Puranananda. (2004). "'Through the Thread of Time Southeast Asian Textiles" The James H M Thompson Foundation Symposium Papers. ."
- Kam-nuan. (2000). " "Prae-wa Silk at Kalasin Province," Journal of Non-formal System. 6(3): 48-50."
- Katota. "A collaboration of Kyoto Craftsmanship and Hideki Kimura (Ki-Yan)." (15-06-2015).
- MacCannell D. (1973). " "Staged authenticity: arrangement of social space in tourist settings," American Journal of Sociology. 79 (3): 589-603."
- Muneenam Bundit. (2013). "'Success of community enterprise: The ban pone Prae-wa silk weavers group," Local Administration Journal. 6(2): 12-24."
- "Native woven fabrics in the northeast Native cloth development projects in all provinces of the country Silpakorn University, Bangkok, . P.23.." (2000).
- "NEPALESE TEXTILES, SUSI DUNSMORE, British Museum, London ,," (1993).
- "NISHJIN." (20-09-2016).
- ""Patterns and Colors on Local Woven Fabric", a project to develop fabrics and native textiles throughout the country for the promotion of production and export. Silpakorn University, Bangkok, P.199.". (2000).

- "Private Museum of Mrs. Payom Sinawat was honored to be a national artist. Visual Arts (Art of Fabric), ." (1990).
- Prof. Wiboon Leesuwat. (2007). "Encyclopedia of knitting weaving: ancient cities."
- Rosa Liu, Rocío H. "Transmitir la antigua artesanía 'yunjin' de generación en generación (9)." (23-05-2018).
- Rungchaya Chumsak. (2008). "“Prae-wa cloth,” Thai Culture. 47(4) : 46."
- Safwan, A. A. "Weaving " (13-02-2016)."A Saga Nishiki brocade." (25-05-2015).
- "Saganishiki - Japanese silk & paper brocade." (09-09-2016).
- Samanchat Sitthichai. (2010). "“Intellectual cultural heritage: Artistic Prae-wa of Pu-thai living in Kalasin province,” Thai Culture. 49(2) 22-24."
- "Silken Threads Lacquer Thrones Lan Na Court Textiles., Susan Conway, River Books Co., Ltd, Bangkok, Thailand, P.142.". (2002.).
- "Silken Threads Lacquer Thrones Lan Na Court Textiles., Susan Conway, River Books Co., Ltd, Bangkok, Thailand, P.184-185.". (2002).
- Silpakorn University. (2001). "“Patterns and Colours on hand woven textile” The development of fabrics and fabric products across the country to promote the production and exports, Bangkok, Amarin Printing & Publishing Public Co. Ltd ".
- Simatrang, S. (1983). "The structure of Lanna mural paintings, Bangkok, Silpakorn University."
- Simon Clarke. (2011). "Textile Design, Laurence King Publishing Ltd.361-373 City Road London."
- "Simple Weaving Hilary Chetwynd, New York.,." (1969).
- Songket: Malaysia’s Woven Treasure. Selvanayagam, G. I., Singapore.,. (1933).
- Sriraksa Wacharin. (2000). "“Fantastic design of Prae-wa in Kalasin,” Journal of Academic Service Centre Knon Kaen University. 8(4) : 31-33."
- Sritares Poowadon. (2015). "Artistic Prae-wa: Wisdom Inheritance into queen of silk; Seu dam (black blouse), prae being (shawl), sin mai (Thai silk sarong) ...Pu-thai ladies’ accessories in two banks of Khong river. Khon Kaen : Siriphan. "

- Stephen D. Ross ed. (1984). "ART AND ITS SIGNIFICANCE: A ANTHOLOGY OF AESTHETIC THEORY, Albany: State University of New York Press, 187-192."
- "Studies in the Material Cultures of Southeast Asia No.19, Series Editor: Michael C. Howard, "Spirits in the loom" Religion and Design in Lao – Tai Textiles by Ellison Banks Fin dly,, Bangkok, Thailand. P.71. ." (2014).
- Tenun Handwoven Textiles of Indonesia, C. T. I. (2010).
- "TENUN HANDWOVEN TEXTILES OF INDONESIA, CITA TENUN INDONESIA, ." (2010).
- "Thai life "Thai Textiles Thread of a Cultural Heritage, Center for the Promotion of Arts and Culture Chiang Mai University, October." (1996.).
- Thimakom, T. (2016). "Knowledge Management Wisdom of Lanna. Yok Dok Lampoon , Rattana Na Lampoon, Songsak Phrangwattanakun Retrieved July 23,2016."
- Thirabhand Chandrachoen. (2007). "The Secret of Southeast Asia Textiles Myth, Status and the Supernatural: Royal Brocades in the Siamese Court: The James HW Thomson Foundation Symposium Papers: Edited by Jane Puranananda: River Books Co., Ltd."
- Through the Thread of Time Southeast Asian Textiles, T. J. H. W. T. F., River Books: . (2004).
- " Through the Thread of Time Southeast Asian Textiles, The James H.W. Thompson Foundation, River Books:" (2004).
- Traditional Textiles of Cambodia. (2003). "Culture Threads and Material Heritage, Gillian Green, River Books Co., Ltd."
- Udom, S. (1997). "Tai-Yuan Jok textile Ratchaburi, Pabpim Press."
- Wannakuk Chart and Others. (1998). "“A study on Prae-wa silk in Kalasin province,” Journal of National Research Concil Thailand. 30(1/2) : 97-116."
- Wikipedia, t. f. e. "Jacquard loom." (26-11-2015).
- Wongkanha Wacharawon. (2015). "Artistic Prae-wa: Wisdom Inheritance into queen of silk; Away from home Thai people from muang-la-fa-tan to muang-loom-lid-lieng. Khon Kaen: Siriphan."
- "Yunjin brocade makes the latest fashion ". (12-06-2015).
- กรมหม่อนไหม., C. ศ. "ผ้าพุมเรียง".



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