

Original Yok Dok Technique on The Thin Mesh^{*}

เทคนิคยกดอกต้นแบบบนตาข่ายโปร่ง

Supamas Jiamrungsan (ศุภมาส เจียมรังสรรค์)^{**}

Abstract

This Article is about the original textile's art 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, such as floral patterns motifs especially the design for the Siamese court. From past to present, as in industry, the design for the royal court in the past becomes one of the key handicrafts with the interweaving of gold threads into the fabric widely used in modern society.

This study is a qualitative research, concerning with how the Yok Dok techniques and patterns, aiming at :1) Developing the guidelines to evaluation and criticism of Thai traditional and contemporary fabric arts, 2) improve the design and weaving technique and 3) making intervention for the researcher's individual design project.

The results showed that the weave structure can be modified by opening and closing the warp yarn on a draw frame so, the process of design and weaving needs special weaving skill. To achieve the new artwork, a high skillful weaver has to understand the nature of conventional complex weave to make layer, so that modification for new intervention is made possible. Source of inspiration comes from Yok Dok to as the beginning point for weaver. It is completed by the expert weaving skill to make delicate material properly designed as a prototype. The method will serve as a guideline for further research.

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^{**} Student of Doctor of Philosophy Program in Design Arts (International Program), Faculty of Decorative Arts, Silpakorn University, Thailand Email: massupa@yahoo.com Assoc Prof. Pairoj Jamuni Ed.D.(1st Supervisor) Asst.Prof. Veerawat Sirivesmas, Ph.D (2nd Supervisor) Asst.Prof.Namfon Laistoolai, Ph.D (3st Supervisor)

In summary, the researcher plans to design a series of fabric artworks based on the inspiration of Thai literature, making synthesis between original classical golden fabric weaving method of the past and modern material, gold color of modern chemical and sequence arrangement so that layers will become obvious. Thai weaving techniques will be applied to make development to ward contemporary designs. Instead of using natural fiber or conventional domestic yarns the researcher uses combinations of yarns, with modern synthetic chemical dyes, thin mesh, and plastic mesh etc. They will be integrated to make a synthesis of contemporary weaving art.

Keywords: 1. Pha Yok Dok 2. Pha Yok Thong 3. Pha Brocade

บทคัดย่อ

บทความนี้มุ่งเน้นการศึกษาเกี่ยวกับศิลปะการทอผ้าไทยดั้งเดิมที่มีเส้นด้ายเสริมทางยืน และทางพุ่ง เทคนิคที่เรียกว่า ผ้ายกดอก ซึ่งถือว่าเป็นผ้าไหมชั้นสูงในประเทศไทยที่พบเห็นได้ยากโดยทั่วไป ในอดีตคนไทยในราชสำนักโบราณจะทำการจ้างพ่อค้าคนกลางเพื่อสั่งซื้อสิ่งทอและส่งมอบสิ่งทอสำเร็จรูปไปยังราชสำนักสำหรับพระราชวงศ์และขุนนาง คำสั่งซื้อถูกส่งไปพร้อมกับการออกแบบที่ต้องการและตัวอย่างผ้า ในบางกรณีช่างทอผ้าชาวต่างชาติสร้างลวดลายขึ้นใหม่ลักษณะเด่นของผ้าไหมเช่นการใช้ลวดลายดอกไม้ (ลวดลาย) โดยเฉพาะสำหรับราชสำนักสยาม เมื่อเวลาผ่านไปจวบจนถึงปัจจุบันของเดิมที่เคยทำให้ราชสำนักกลายเป็นงานหัตถกรรมหลักอันหนึ่งที่ใช้เป็นเทคนิคอย่างแพร่หลายในปัจจุบัน

การศึกษานี้การวิจัยครั้งนี้เป็นการวิจัยเชิงคุณภาพ เกี่ยวข้องกับเทคนิคการทอผ้ายกดอกที่มุ่งหมายไปที่

- 1) พัฒนาเป็นแนวทางของผ้าทอโดยการประเมินและวิจารณ์ทั้งในอดีตและปัจจุบันของผ้าไทย
- 2) พัฒนาแบบและกระบวนการทอ
- 3) ทำให้เกิดนวัตกรรมเป็นแบบเฉพาะตัวของผู้วิจัย

ผลการวิจัยพบว่า การทอและโครงสร้างสามารถปรับเปลี่ยนเป็นการเปิดและปิด เส้นด้ายยืนบนกรอบเฟรม ซึ่งการออกแบบและกระบวนการทอนี้ จำเป็นที่จะต้องใช้อย่างที่มีความชำนาญสูงมีความเข้าใจในธรรมชาติของความซับซ้อนของการขัดกันของเส้นด้ายเพื่อที่จะปรับเปลี่ยนจนก่อให้เกิดนวัตกรรมใหม่

แรงบันดาลใจมาจากการทอผ้ายกดอกเป็นสำคัญ ซึ่งจะได้สำเร็จได้ต้องมีความเชี่ยวชาญที่จะทำวัสดุที่บอบบางนี้ขึ้นมาเพื่อสร้างชิ้นงานต้นแบบให้มีความสอดคล้องทั้งวัสดุ กระบวนการ และรูปลักษณะ

ในการสรุปสาระสำคัญขั้นสุดท้ายผู้วิจัยจะทำการออกแบบชุดงานที่มาจากวรรณคดีไทย สันเคราะห์ระหว่างผ้าทอต้นแบบและเทคนิคจากอดีตมาสู่ปัจจุบัน ที่มีความหรูหราของผ้าที่มีสีทอง โดยใช้วัสดุประดิษฐ์ใหม่ที่มีสีทองจากเคมีให้เห็นและเรียงชั้นของการทออย่างเป็นลำดับ ให้เห็นเป็นชั้นของการทอของผ้าอย่างชัดเจน

เทคนิคการทอแบบอย่างผ้าไทยนี้ จะปรับเปลี่ยนพัฒนาในแนวทางรูปแบบร่วมสมัยการใช้วัสดุใหม่ทดแทนเส้นใยธรรมชาติที่เป็นประเพณีนิยมในท้องถิ่น ผู้วิจัยได้นำวัสดุที่ประดิษฐ์ใหม่ที่มีความผสมผสานกับความทันสมัยได้แก่เส้นใยสังเคราะห์ เช่น ผ้าตาข่ายโปร่งบาง และ ตาข่ายพลาสติก มาผสมผสานสังเคราะห์สร้างงานศิลปะการทอร่วมสมัยขึ้น

คำสำคัญ : ผ้ายกดอก ผ้ายกทอง ผ้าตาด

อาจารย์ที่ปรึกษาหลัก รศ.ดร.ไพโรจน์ ชมณี

อาจารย์ที่ปรึกษาร่วม ผศ.ดร.วีรวัฒน์ สิริเวสมาศ

อาจารย์ที่ปรึกษาร่วม ผศ.ดร.น้ำฝน ไส้ตรูไกล

Introduction

In researcher's point of view, the researcher focuses on techniques Pha Yok Dok in Surin. The golden fabric is located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin (about 10 kilometers from Surin along Ke Loi-Mueang Lieng Road.) It is a fabric of Yok Dok the ancient silk weaved with gold threads. The process begun when very small silk threads dyes and weave. Many ancient designs such as the famous beautiful golden brocade silk fabric was made in this manner. It is made of pure silver threads woven with silk threads. It takes 2-3 months to a year for weaving each fabric-depending on the design and of production (selection of silk yarns) done by weaving 1500 shaft/ Takor (maximum was 1500). Surin province has continually made the selected material for many centuries. Shirts and shawls produced from Surin were given to leader and spouse of APEC Summit countries hosted by Thailand.

The APEC leader Countries in 2003, The silk was selected as the fabric to produce shirts, the gift for the conference participants. The project is supported and promoted by the Bureau of the Royal House Hold and Her Majesty the Queen's Foundation. 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. There was a luxury item worn by wealthy ladies or those who knew how to weave their own cloth and only for special occasions. This complex craft was taught to daughters by their mothers, with the designs committed to memory and handed down through generations of families.

In the case of Thailand, Thai high social life style evolved from different foundations race, religion. In each place, there were also customs, traditions and culture that were the specific identities of different groups in each region and enabled them to live happily together in the same society. The culture of local cloth creation considered as an artistic handicraft which identity directly derives from local folk wisdom and reveals the goodness and beauty that has been accumulated and inherited in each area from generation to generation.

Pha Yok Dok is one of reflecting human intelligence on how they invent weaving. It is a complex process which requires highly skilled weavers. The sophistication of the pattern varies technique where the patterns are set in the warp with additional pattern heddles. It is placed behind the main heddles and suspended over the warp with a support hung from the frame. It is genuine art textile weave of Thailand. There are designing and weaving silk for famous, intricate, and elegant designs of weaving technique. The process of discontinuous supplementary weft: weavers used a long piece of bamboo to pick up the warp yarns. After that a supplementary weft yarn is periodically added, under them from one side to another side along the weft yarns direction. The process is continued through the cloth width. Pha Yok Dok is a weaving process by adding a special fabric pattern. There are steps and many specialties weaving method, each of them depend on each individual design. These characteristics come from the roots and identity of steps and methods of natural fabric cultivation for use in the complex and delicate skill of weaving. This handicraft highlights the continuing significance and relationship of clothing and humanity from the past to the present.

Result indicated that difficulty is revealed from weaving technique, wherever pattern such as floral, animal, or geometric shape mode. Grid motifs cannot be easily done. Many places in Northern, Northeastern and Southern of Thailand, women weavers normally weave the finely detailed gold-etched or silver-etched shapes in the fabrics. Thai brocades are woven with gold or silver cotton threads or silk yarns. The overall classic designs, including star, elephant pedestal or peafowl tail motifs cannot be easily made. The weave must be repeated several times. An example of special Thai design, the Kaeo-Ching-Duang (Triumphed of the circular Glass Design) This is a repeats pattern, each unit with flower, an animal motif in scribed in to the circular edge unit. There is also other pattern of the unit outline such as diamond, quadrangles, rhombuses, squares or hexagons each of these has flower, animal or the called the “Thep-Pa-Nom” (Angel with saluting hands) in scribed.



Figure 1 Pha Yok Dok in Surin. The golden fabric is located at the Tha Sawang Village, Tambol Ta Sawang, Amphoe Mueang, Surin. Source: From the survey area.



Figure 2 Pha Yok Thong in Roi - Et, the cite of production the Royal court golden fabric is located at the Village, Amphoe Mueang (city District) of Roi – Et. Source: survey area.



Figure 3 Weaving apparatus (string model) of the luxurious Yok Dok is imported from people's Republic of Lao.



Figure 4 The sample which is normally white ground with indigo-dyed cotton discontinuous supplementary wefts. The Pha Saew with pattern an differs from one household to another. Each family with the heirloom operates in dependently by opening and closing warp yarn on a draw frame. Source: survey area District.

As practiced in the world, the Yok Dok, Supplementary of yarns are of worldwide use. It is historical well-known textile tradition. Examination of surviving pieces of cloth for Fabric dyes, thread quality, a pattern registers and records of weaver's family had already been testified. A family that having heirloom pieces as mention, the family with long past history as expert in textile weaving tradition can continue this culture heritage.

Asia and Europe share a common weaving art tradition but they are called under different names depending on each language such as in Asian are Yok Dok: Thai, Songket /Sungket : Indonesia/Malaysia/ Brunei ,Nishijin : Japan, Jin : China and in European are Jacquard: France, Dobby: France ,Brocade/Brocates: Italy and Damask /Damascus : Syria etc.,

This branch of classic weaving art enable weaver to use the supplementary weft and warp technique, which are rarely found in past. Siamese court ordered brocades from China and India, foreign weavers created designs especially for the Siamese.

The purposes of this study:

- 1) To pass on the Knowledge by initiative method. Technique of golden fabric is about weaving with gold threads known as Yok Thong.
- 2) To improve a contemporary pattern making 21st century Yok Dok version the Yok Thong is a complex process requiring highly skilled weaver making each fabric depending on draw frame.
- 3) Making a 21st century textile art whose inspiration of Yok Dok and Yok Thong as possible device, the weave structure has Yok Thong as back bone.

Research objectives

1. To study principle motif and implementation of Yok Dok textile design.
2. To develop pattern of contemporary fabric arts are the synthesis of Yok Dok textile design.
3. To create weaving art inspiration from Yok Dok textile design.
4. To propose the pattern design and process of weaving art.

Research process

My research is concerned with how the Yok Dok techniques and patterns can be adapted using contemporary fabrics. 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. The results showed that the weave structure can be adapted by opening and closing the warp yarn on a draw frame.

Scope of the research

1. Focuses on the formal process of Yok Dok textile design.
2. Improve Motif of Yok Dok textile design make international of weaving art.
3. Introduce new trend and teste and art form to contemporary design.
4. Make investigation of the experimental result testing string coated yarn weaving, and develop design pattern with motifs, the approach of contemporary as described is different from the traditional design.

Research Methodology

The researcher found that technology of the pass is very useful and it can be linked to local wisdom. In this manner learners can get benefit frame new of knowledge and the study can be used as a study guide. The objective to make innovative, new idea and design, artistic as well as conceptual and make fascinating weaving process to create new art form and art work. The research will increase the value of clothes. Body of knowledge obtained can be applied to design in future. It is useful for fabric craft practice. The researcher is a search tracing to fine the roots and identity of art tradition as well as expending alteration of fabric 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. The researcher has tried to make an investigation of the experimental results. The string coated yarn is used in weaving, pattern design with a motif of image, the approach of contemporary as described is different from the traditional design. To make learning easier and more understandable, 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 my country. Its status as a living tradition of art. What is created is new, simplifying, it is inspiring traditional art form of weaving art.

Discussion/Conclusion

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 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 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 source of information to make the maximum amount of cultural and commercial benefit.

Rasa Suntrayuth (2018) The merchant sometimes uses 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 (1997) 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 textile weaving. 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 lacking, of specialists, materials and weaving tools. are main limitations among people in weaving traditional Jok textile.

But it is 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 Homotech, Mobiltech, Protech, Clothech etc.,

Methodology

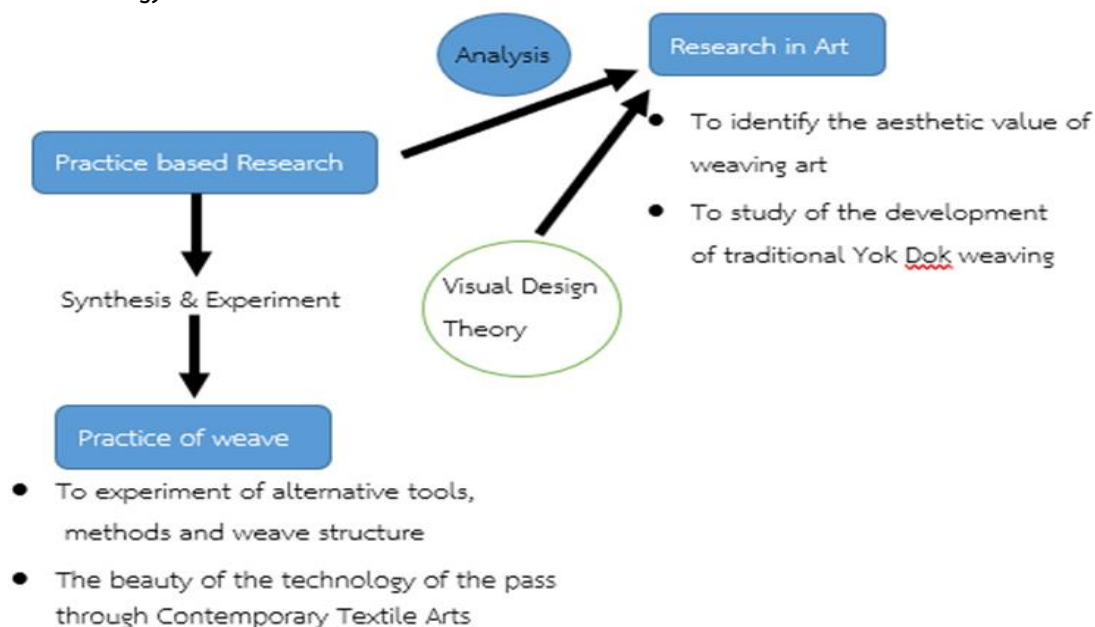


Figure 5: This diagram of the methodology of the research

The concept of adoption

The preserved findings revealed that information technology was very useful to manage local wisdom. And knowledge which allow learners to access and practice weaving

much easier. Which 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. Its value is much more than usual clothing which use all types of cotton and chemical dyes, plastic nets, plastic mesh. 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 identity what should be done to the acceptance most possible.

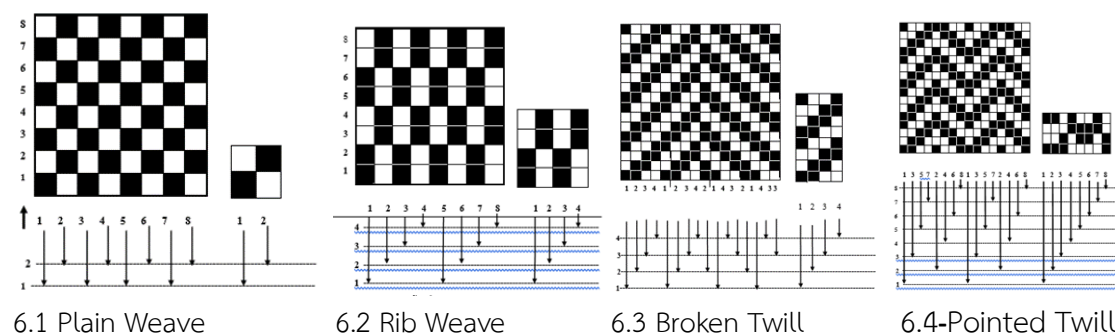


Figure: 6 Basic Weave Structure

6.1 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.

6.2 Warp Ribs: 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.

6.3 - 6.4 **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 are 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: 7 cotton waxed coating

The Supplementary warp weaving technique of motif pattern, a new image of contemporary Yok Dok Source: From the results of the experiment 1st

Motifs	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.
Texture	This shows texture weaving details from cotton waxed coating yarns on gains bamboo more durable compared to normally yarn. To insert supplementary weft yarns can take up from end yarn.
Textile structures	Textile structure stitching are structure weave with cotton coating rope, candle stitching can be loosening for more density.
Distinguish	It's cannot use to the textiles for apparel.
The most suitable application	To decorate the ornamental pattern is the most suitable.

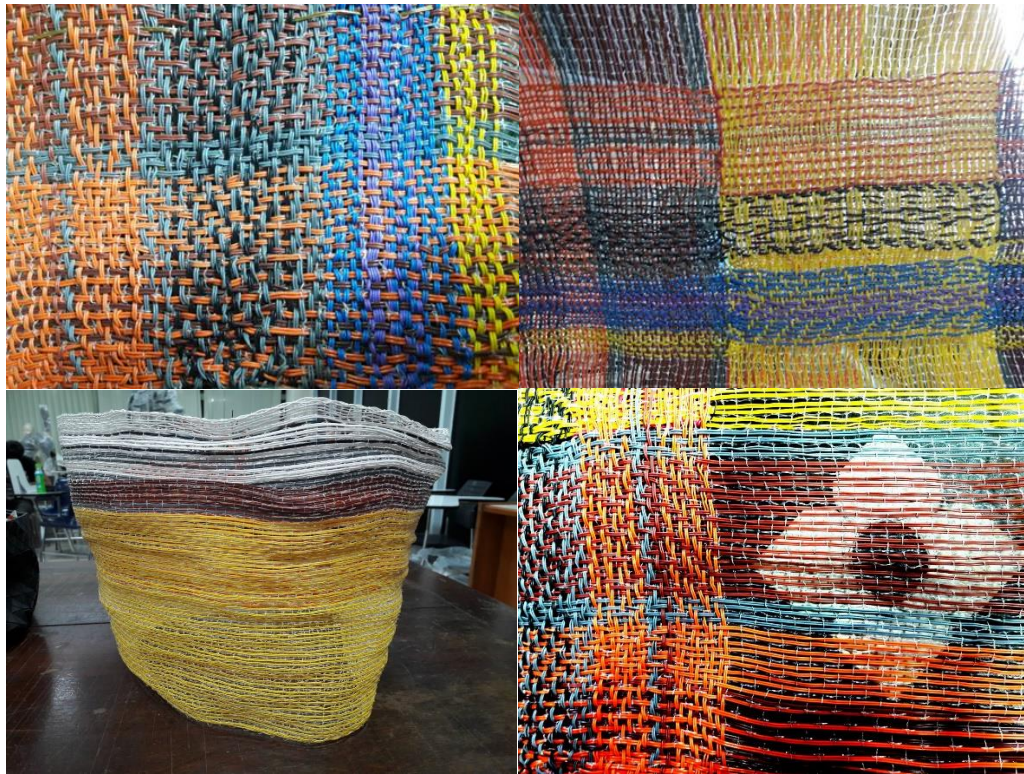


Figure: 8 The Phone cables The Supplementary warp weaving technique of motif pattern, a new image of contemporary Yok Dok Source: From the results of the experiment 2nd

Motifs	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.
Texture	This shows texture weaving details from the telephone cables wire on gains plastic mesh, which more durable compared to normally the telephone cable wire. To insert supplementary weft yarns can take up from gains plastic mesh.
Textile structures	Fabric stitching is a woven structured with the telephone cable wire. Can be stronger, and give more density.
Distinguish	It's uncommonly to the textiles for apparel.
The most suitable application	To decorate the ornamental pattern is the most suitable



Figure: 9 The Supplementary warp weaving technique of motif pattern, a new image of contemporary Yok Dok Source: From the results of the experiment 3th

Motifs	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.
Texture	This shows texture weaving details from cotton waxed coating yarns on plastic mesh which more durable compared to normally cotton waxed coating yarns. To insert supplementary weft yarns can take up from gains plastic mesh.
Textile structures	Fabric stitching is a woven structure with a cotton waxed coating yarns. Can be stronger, and give more density.
Distinguish	It's uncommonly to the textiles for apparel.
The most suitable application	To decorate the ornamental pattern is the most suitable



Figure: 10 The Supplementary warp weaving technique of motif pattern, a new image of contemporary Yok Dok Source: From the results of the experiment 4th

Motifs	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.
Texture	This shows texture 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 gains cotton coating mesh more durable compared to normally a metallized yarn. To insert supplementary weft yarns can take up from cotton coating mesh.
Textile structures	Textile structure stitching are structured weave with the cotton coating mesh. Fabric stitching is a woven structure with a metallized yarn. It can moderate weight density.
Distinguish	It's uncommonly to the textiles for apparel.
The most suitable application	To decorate the ornamental pattern is the most suitable



Figure: 11 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, a new image of contemporary Yok Dok Source: From the results of the experiment 5th

Motifs	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.
Texture	This shows texture 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 normally a metallized yarn. To insert supplementary weft yarns can take up from gains the thin mesh.
Textile structures	Fabric stitching is a woven structure with a metallized yarn. It can be stronger and give more weight, more density.
Distinguish	It's uncommonly to the textiles for apparel.
The most suitable application	To decorate the ornamental pattern is the most suitable



Figure: 12 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, a new image of contemporary Yok Dok Source: From the results of the experiment 6th

Motifs	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.
Texture	This shows texture 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 more durable compared to normally a metallized yarn. To insert supplementary weft yarns can take up from gains the thin mesh.
Textile structures	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.
Distinguish	It's uncommonly to the textiles for apparel.
The most suitable application	To decorate the ornamental pattern is the most suitable

Aesthetic of Fiber	Main Structure	Practice of Weave
a. Cotton waxed coating	The main is to disadvantage the fabric that is thick and fluffy. It is difficult to maintain	inconvenient
b. Metallized yarn	The surface is beautiful and durable.	To appropriate
c. The telephone cable wire	The main is to disadvantage the hardness and weight. It is difficult to maintain	To appropriate



a. Cotton waxed coating b. Metallized yarn c. The telephone cable wire

Figure: 13 summaries, all types of fiber of cotton and yarns chemical dyes, the thin Mesh, plastic mesh. By pass Multi Culture for Tradition Culture, The old Original, Innovative Technology, to Contemporary art.

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.

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