Study the Aesthetic and Functional Values of Punch Needle Embroidery to Implement some Ancient Egypt Souvenirs

Prof. Heba Assem El-Dessouki

Prof. of Textile & Clothes, Head of Home Economics Dept., Faculty of Specific Education, Ain Shams University.

dr.mansoura.soliman@sedu.asu.edu.eg

Dr. Mansoura Soliman Said

Assoc. Prof. of Textile &Clothes, Home Economics Dept., Faculty of Specific Education, Ain Shams University.

dr.mansoura.soliman@sedu.asu.edu.eg

Researcher. Aseel Z. Farag

Home Economics teacher at Oxford language School. aseel.zareeffarag.7@gmail.com

Abstract

Punch needle embroidery is a unique type of embroidery that uses loops of threads to create designs. Punch needle embroidery technology ranges from common hand manual tools to high-cost industrial tufting machines. Computer-controlled punch needle fabrication tools remain out-of-reach for most practitioners. (22)

The researchers believe that Covid-19 had a great impact on the spread of punch-needle embroidery art in recent years. One of the reasons is that people had to stay in their homes for long periods, as well as its spread on social media such as Instagram, Twitter, TikTok and YouTube, so people began to occupy their long free time by learning crafts.

This paper aims to produce pharonic touristic souvenirs using punch needle embroidery, inspired by symbols of ancient Egypt art such as: The Eye of Horus symbol, lotus flower symbol, scarab symbol and pyramid symbol. Five products have been implemented (clutch hand bag, 2 casual hand bags, cardigan, and shirt).

Questionnaire was designed to investigate the aesthetic and functional aspects of the product by specialists in the field of tourism, textile and clothes, after the statistical treatment, it was found that the highest product was the cardigan with the Scarab symbol.

الملخص

يعد التطريز بإبرة النفاش نوعا فريدا من فن التطريز الذي يستخدم حلقات من الخيوط لإنشاء تصميمات متنوعة. تتراوح تكنولوجيا التطريز الابر المثقوبة من الأدوات اليدوية الشائعة إلى آلات الخرق الصاغية عالية التكلفة، وتظل أدوات تصنيع الإبر المثقبة التي يتم التحكم فيها بواسطة الكمبيوتر بعيدة عن متناول معظم الممارسين. (٢٢)

يعتقد الباحثون أن Covid-19 كان له تأثير كبير على انتشار فن التطريز الإبرة المثقوبة في السنوات الأخيرة ، ومن أسباب ذلك اضطرار الناس إلى البقاء في منازلهم لفترات طويلة، فضلًا عن انتشاره على وسائل التواصل الاجتماعي مثل ولله المناس الله المناس الله المناس الله المناس الله المناس في شلخل أوقات فراغهم الطويلة من خلال تعلم الحرف اليدوية.

تهدف هذه الورقة البحثية إلى إنتاج تذكارات سياحي فرعوني باستخدام التطريز بإبرة النفاش، مستوحاه من رموز الفن المصري القديم مثل؛ رمز عين حورس، ورمز زهرة اللوتس، ورمز الجعران، ورمز الهرم. تم تنفيذ خمسة منتجات (حقيبة يد صغيرة، ٢ حقيبة يد، كارديجان، وقميص).

تم تصميم الاستبيان للتحقق من الجوانب الجمالية والوظيفية للمنتج من قبل متخصصين في مجال السياحة والمنسوجات والملابس، وبعد المعالجة الإحصائية وجد أن المنتج الأعلى كان كارديجان الذي يحمل رمز الجعران.

الكلمات المفتاحية

ابرة التثقيب (النفاش)، والقيم الجمالية والوظيفية، والتذكارات السياحية، ورموز ودلالات الفن في مصر القديمة

Introduction

Punch needle embroidery (also known as needle punching, needle punch work, punch needle work, or punch work) is a technique involving the punching and looping of a thread or ribbon (c. 2 mm in width) in a particular design through a fabric. The technique uses yarn or embroidery thread attached to a hollow needle that is "punched" back and forth through a fabric to create a surface of thread loops.

To produce this work, a piece of loosely woven cloth, with a design drawn on the reverse, it is placed in a tensioning frame of some kind (such as an embroidery hoop). With the help of a punch needle, a series of loops is made on the obverse side of the cloth, using the fingers to hold the loops initially in place. When the design is finished, the cloth is removed from the frame and turned over. The series of loops (the pile) gives the design a carpet-like appearance. Sometimes the loops are left whole, on other occasions they are cut. (26)

The artworks of ancient Egypt have fascinated people for thousands of years. The early Greek and later Roman artists were influenced by Egyptian techniques, and their art would inspire those of other cultures up to the present day. Many artists are known from later periods but those of Egypt are completely anonymous and for a very interesting reason: Their art was functional and created for a practical purpose whereas later art was intended for aesthetic pleasure.

Functional art is work-made-for-hiring, belonging to the individual who commissioned it, while art created for pleasure — even if commissioned — allows for greater expression of the artist's vision and so recognition of an individual artist. (1)

Research problem

The feeling of the study rise from the extent of the current interest in everything related to tourism, and since tourist souvenirs are an influential element for the spread of popular cultures and the consolidation of national identity, this positive effect had to be thought of by the implementation of products bearing a pharaonic character as tourist souvenirs using the art of embroidery with punch needles, which is one of the Handicrafts abandoned for a long time, despite their multiple advantages. Also, the scarcity of Arabic references and books that explain what the punch needle is, its positive points and overcoming its negatives, until it became one of the well-known crafts in Western countries only, despite its Egyptian origins.

Research Questions

What is the benefit of punch needle embroidery for making tourist Souvenirs that follow Ancient Egyptian art:

- 1- What is the possibility of embroidering some symbols inspired by the Ancient Egyptian art by using the Punch Needle?
- 2- Are the functional and aesthetic aspects available in the produced tourist souvenirs?

Research aim

Preserving our authentic Ancient Egyptian and identity by documenting Egyptian artistic symbols in embroidered souvenirs bearing symbols of the past and keeping pace with the present.

- -Choosing the product that are suitable for embroidered tourist souvenirs.
- -Access to the best materials suitable for embroidery with punch needles.
- -Employing symbols of Ancient Egyptian art to make tourist souvenirs.

Research Method

Empirical Method

Research limits

1-Materials:

- Punch Needle: Flat stitch + pile stitch
- Yarn: cotton, 100% acrylic, wool yarn
- Fabrics: Duck, Cotton, Blend fabric
- 2- Symbols: 4 symbols of the Ancient Egyptian
 - Eye of Horus Symbol
 - Lotus Flower Symbol
 - Scarab Symbol
 - Pyramid Symbol
- 3- Products:
 - 1 Cardigan
 - 1 Clutch bag
 - 1 Shirt
 - 2 Casual hand bags

Research Measurements

- 1- A questionnaire to measure the opinions of specialists in the field of clothing and textiles for the aesthetic aspect of the final product.
- 2- A questionnaire to measure the opinions of specialists in the field of clothing and textiles for the functional aspect of the final product.
- 3- A questionnaire to measure the opinions of specialists in the field of tourism for the final product.

Research Hypotheses:

- 1- Statistically significant differences between the implemented products in achieving the functional aspect.
- 2- Statistically significant differences between the implemented products in achieving the aesthetic aspect.
- 3- Statistically significant differences between the products implemented in the products evaluation form according to the opinions of the arbitrators.
- 4- Positive consumer opinions about the use of the implemented products.

History of Punch Needle in Ancient Egypt

It was practiced by Ancient Egyptians using hollow bones of bird wings as needles.

The ancient Egyptians were able to maintain their artistic principals almost without change for thousands of years because while there were individual artists striving for personal expressing of transitory emotions, there were also craftsmen, working in studios, producing a tradition very refined product. At first, this product existed almost exclusively within the domain religion. In the early dynasties the overseer of the studios was a High Priest of (Ptah, the god who was known as the Creator), and it was the priest who was originally responsible for the des and execution of all works of art. Within the studios the artisans practiced their craft and handed down their knowledge and skills from one generation to another. All of this may give the distinct impression that Egyptian art remained unchanged by the events which shaped the country's history. It is true that the Egyptians yearned to cling to the ideals of their past, and indeed did return to them over and over again throughout their history, but they were not unmoved by the forces of their own times. (4)

History of Punch Needle in some Countries

In the **Middle Ages** it was called the "Punch Stitch" and was used for decorating ecclesiastical clothing. In the 17th to 19th centuries, it was popular with sailors who would use their spare time to make what look like miniature hooked rugs. Also known as **Russian** embroidery, the technique continues to be used by a conservative Russian Orthodox splinter group known as the Old Believers, who broke with the church in the 17th century. (18)



Fig (1): A vintage needle set from the 1920s / 1930s. (15)

In the late 1920s and into the 1930s, punch needle embroidery was very popular in the **United States**. Sets of different-sized needles with a common handle were readily available. None of the work was as delicate and refined as can be created with today's needles, but the process was the same as shown in fig (1). (15)

Bunka is Japanese needle embroidery specializing in punch needle. It is worked with special rayon-Chinetti threads, which when pulled open creates a bouclé texture in the yarn. Unlike regular punch needle embroidery, it is worked from the front. The loops on the back hold the stitches in place in the front. Bunka is used for wall hangings. There are many people doing this type of embroidery today. Classes in Bunka can be found through many adult education departments throughout the United States and Canada. (14)

Rug Hooking began in **Maine** in the early 1830's where it was looked down upon and considered a craft of poverty. Women who dreamed of owning beautiful rugs that were becoming very popular got creative and started to make their own rugs.

Women in farming communities had access to burlap sacks, and they began to use a small metal hook with a wooden handle (similar to a crochet hook) to pull strips of fabric, like old clothing and rags, through the burlap to make their own floor coverings. When these women started out, their rugs were very basic. As time went on, they became much more skilled at rug-making, until they could create a beautiful home with an artistic touch.

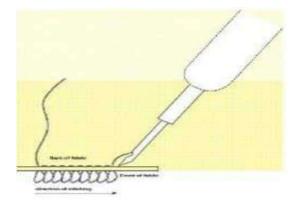
In 1886, a man named **Ebenezer Ross** from Toledo Ohio patented the first punch needle tool, as an alternative to the traditional rug hook. "The Griffin", allowed rug hookers to work faster, punching down from the back of the fabric rather than pulling yarn up through the front. By the 1950's, most American rug manufacturing was sent overseas to be imitated by the tufting gun (which is having its own revival for personal use these days) and many of these rug studios were forced to close. There was a brief renewal of the craft in the 70's due to the popularity of Russian Punch Needle embroidery. Punch Needle Rug Hooking became a dying art, downgraded to the category of "craft" and its great history forgotten.

Punch Needle Rug Hooking is currently having a new revival, thanks in part to social media, and creative all over the world experimenting with the possibilities for the craft, as a hobby, as a business, or as fine art. (20)

Mechanism of punch needle

All kinds of punch needles are called such as they pierce or perforate the fabric.

They are hollow needles with a hole through which the thread passes. Regardless of the model, the thread is passed through the needle and past its handle. Next, the tip of the needle pierces the fabric, creating an embroidery stitch. Different needles provide different thread length control, creating different stitch sizes. (12)



(14)Types of Punch Needle Embroidery

Today, there is a great variety of punch needle styles, but they actually all come from the same principle and model. No one can be certain of exactly where it came from some models incorporate plastic and wooden handles. Laura's collection includes needles from Russia, Japan, India, Mexico, Brazil, Argentina, Uzbekistan, and the US.

The Japanese brand Clover offers interchangeable needles. In Argentina, they are known as Chinese or Russian embroidery needles. Brazilians also call it Russian embroidery and there is a wide selection of needles there due to a large Russian immigrant community. In Mexico, they're known as agujasmaravillosas or wonderful needles, everywhere else, they're called punch needles. (12)

Amy Oxford is widely credited for leading the punch needle renaissance, after creating her own punch needle tool, the Oxford Punch Needle, in 1995. Oxford's website has become a resource for information about punch needle crafting, and lists workshops from Oxford-certified instructors in over 30 cities in the US, Canada, and the United Kingdom. (5)

Functional and Aesthetics Value

Functional design focuses on what a product is supposed to do and involves technology, functionality, and utility. Aesthetic design pertains to perceptions of beauty and how a product appeals to the senses. Symbolic design involves how a product resonates with consumers' self-image, personality, or values. (13)

Aesthetics is a core design principle that defines a design's pleasing qualities. In visual terms, aesthetics includes factors such as balance, color, movement, pattern, scale, shape and visual weight. Designers use aesthetics to complement their designs' usability, and so enhance functionality with attractive layouts.

Tourist Souvenirs

As the tourism industry becomes increasingly important to communities around the world, the need to develop tourism sustainability has also become a primary concern. Tourism is considered to be an important area for encouraging sustainable development and poverty alleviation. Despite wide spread recognition of the need to seek strategies for sustainable tourism there seems to be a very wide margin of interpretation and perspective. (25)

The basics of designing tourist souvenirs in Egypt:

Aesthetic values

- Functional suitability
- humanitarian factors
- Economic factors
- Technical factors

Characteristics of tourist souvenirs:

- High quality
- Light weight and easy to transport
- Heritage character (Originality and Contemporary)

The motives that make tourists buy souvenirs:

- Tourist pride in owning a souvenir.
- The souvenir reminds the tourist of the country's identity and heritage.
- The souvenir stamp that indicates the identity and heritage of the country. (17)

The Egyptian pharaonic art

Although Egyptian art is highly regarded today and continues to be a great draw for museums featuring exhibits, the ancient Egyptians themselves would never have thought of their work in this same way and certainly would find it strange to have these different types of works displayed out of context in a museum's hall. Statuary was created and placed for a specific reason, and the same is true for any other kind of art. The concept of "art for art's sake" was unknown and, further, would have probably been incomprehensible to an ancient Egyptian who understood art as functional above all else. (1)

No matter what type of artworks was produced, such as statues or relief paintings, they were all intended for the same purpose. All artworks were essentially created to serve in the interest of a heavenly or departed recipient, as they provided a place for the individual to manifest and receive the full benefits of ritual actions.

For example, the majority of statues demonstrated a formal interface. This meant that they were organized straight ahead so as to directly face the ritual of saying goodbye to a loved one that happened right in front of them. (2)

Symbolism

Symbolism pervaded Egyptian art and played an important role in establishing a sense of order. The pharaoh's regalia, for example, represented his power to maintain order. Animals were also highly symbolic figures in Egyptian art, also some colors were expressive. (3)

■ The most important artworks that were infused with heavy symbolism were depictions of the pharaoh's regalia. The purpose of depicting royal attire in this way was to represent and emphasize the great power of the pharaoh so that order was able to be maintained within Egyptian society.

In addition to pharaohs and their attire, goddesses, gods, and animals were also represented as highly symbolic figures in Egyptian art, as they were regarded as ubiquitous and almighty figures. (2)

Beasts (griffins) also included among the motifs used by Middle Kingdom jewelers were parts of the royal titulary and hieroglyphs referring to 'protection', 'joy', 'life' and similar key words of ancient Egyptian good wishes. These were also used as pendants on collars and necklaces which often terminated in hawk's heads. Cowrie shells were imitated in gold to form necklaces. Gold pectorals inlaid with lapis lazuli, turquoise and carnelian presented by Senusret II, Senusret III and Amenemhet III to the princesses Sithathor and Mereret are among the most successful jewelry designs known from ancient Egypt. (8)

Eye of Horus Symbol

The Eye of Horus originated in Ancient Egypt and represents healing and knowledge and is a symbol of protection from evil. The Eye of Horus originated from the Egyptian god Horus (also known as Heru, Hor, Har and Her), who was the god of the Sky. Horus had the body of a man and the head of a falcon. Horus's left eye represents the moon while his right eye represents the sun. It is the left eye that is the image of the Eye of Horus. (11)

Ancient Egyptians mastered the integration of anatomical knowledge and mythological stories into artistic symbols and figures. Artistically, the Eye is comprised of six different parts. Mythological, each part is considered to be an individual symbol. Anatomically, each part corresponds with the center of a particular human sensory. For many years, the Eye of Horus was considered as a symbol of prosperity and protection by the ancient Egyptians, and its legacy continued into modern Egypt. However, with a closer look at its artistic design and understanding the epic story behind its creation, the Eye's current perception as a singular mythology symbol will be transformed into a powerful example of the ancient Egyptians' detailed understanding of human anatomy and physiology as shown in fig. (2). (9)

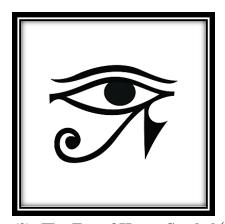


Fig (2): The Eye of Horus Symbol (27)

Eye of Horus, in ancient Egypt, symbol representing protection, health, and restoration. According to Egyptian myth, Horus lost his left eye in a struggle with Seth. The eye was magically restored by Hathor, and this restoration came to symbolize the process of making whole and healing. For this reason, the symbol was often used in amulets. (27)

Lotus Flower Symbol

In ancient Egypt, the lotus represented rebirth. This meaning was inspired by the nature of the lotus's petals that spread above water upon sensing sunlight and closed during the night so as for the flower to fall back under water. (20)

The lotus flower enjoyed a great sacred place in the life of the ancient Egyptians, the petals of its flower opened from the child sun "Ra" who dissipated the darkness and was shown from the opening of the lotus at dawn and closed in the evening wrapped in lotus petals. The lotus appeared on the Pharaonic Tombs of Thebes, where the deceased appeared with his daughter on the boat in the water where the lotus buds were picked for him. The columns of the temple resembled a lotus flower, and the blue type of "blue nymph flower" was sacred, with thin pointed leaves and narrow pointed toy leaves with a delicate scent that represented the scent of divine life. The blue lotus symbolized the little God of Memphis (Nefertem) the master of perfume and symbolized the first solar flower. (23)

It is a flowering aquatic plant named after the word given by the Greeks (Lotaz), a family of "water lilies", with flowers characterized by petals or circular leaves and the cylindrical cornea prominent from the center to the top as shown in fig. (3).

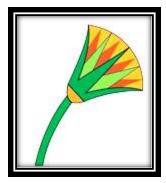


Fig (3): The Lotus Flower Symbol (28)

Scarab Symbol

Egypt's crowning symbol of rebirth; Egyptians would remove the heart of the deceased and replace it with a small, stone amulet of a beetle (*Khepera*). They associated this little creature with the act of resurrection and creation; to them, the *Khepera* was the representation of rising from nothingness. (19)

Scarabs were used for a variety of purposes, including seals. In ancient times, seals took many forms of animal images. The scarab was also used as an amulet that warded off evil, and that was because they believed that the scarab would renew itself by itself and thus not be affected by any external factors as shown in fig. (4).

The ancient Egyptians used scarabs as gifts to the king, and the name of the king was engraved on them in addition to the name and job of the gift owner.



Fig (4): The scarab Symbol⁽²⁹⁾

Scarabs were also used on decorations and inscriptions, as well as talismans, it also brings good luck. While circling around the scarab three times leads to an increase in money, and circling seven times helps in having children, and if the girl wants to get married, she should go around the scarab six times. (24)

Pyramid Symbol

A pyramid is a formation that almost always has a square base and angled sides that meet in a point at the top. Throughout history, they have been built with different materials and of varying sizes by many cultures, including the Mayans in Central America, the Babylonians in Mesopotamia, and most famously, the Egyptians of Africa.

Plenty of civilizations whose names are lost to time-built pyramids for one reason or another. But none other than the three aforementioned cultures were able to take pyramid building to a perfectionist level, which is why they are the most talked about.

It's no wonder that those three cultures still have pyramids standing for us to marvel at to this day. (6)



Fig (5): The Egyptian Pyramids (30)

Like other forms of monumental architecture, pyramid construction holds clues to what the purpose might be. Societies which build pyramids invariably are those based on ranked classes, orders or estates; the pyramids are often not built just on a lavish scale, they are carefully planned to suit a particular <u>astronomical orientation</u> and geometrical perfection. They are symbols of permanence in a world where lives are short; they are a visual symbol of power in a world where power is transitory. (10)

Historians continue to debate about the ancient Egyptians' use of the pyramid form for the royal tombs at Giza and in funerary sites elsewhere. Several theories have been proposed about what the form represents: The pyramid may function as a stairway for the pharaoh's ka to reach the heavens, it could refer to the ancient mound of creation, or it might symbolize sunrays spreading to the earth.⁽³¹⁾

In Egyptian mythology, pharaohs become gods in the afterlife (Handwerk, n.d.). The pyramids were built to prepare pharaohs for the afterlife and their burial chambers were filled with goods that they deemed necessary. They were also buried alongside the Queen and the intricate

passages within the pyramids indicate the importance of the pharaoh's role in connecting their world with the afterlife. $^{(7),(16)}$

Experiment work:

| No. | Deign | Basic + Auxiliary materials | Thread type | Stitch type | Ornament Unit | Final product |
|-----|--------------------|---|--------------------------|------------------------------------|-----------------------------------|---------------|
| 1 | Cardigan | Blend fabric | 100% acrylic yarn | Flat stitch + pile stitch | The paranoiac scarab | |
| 2 | Clutch bag | Suede fabric + Metal chain- filler materials | 100% acrylic yarn | Flat stitch + pile stitch | Eye of Horus | |
| 3 | Shirt | Cotton | 100% acrylic yarn | Flat stitch + pile stitch | Lotus flower | |
| 4 | Casual hand bag | Tamping cloth + Zipper | Wool yarn | Pile stitch | Eye of Horus | R |
| 5 | Casual hand bag | Tamping cloth | (wool + acrylic) yarn | Flat stitch + pile stitch | The pyramids and the word (Egypt) | |

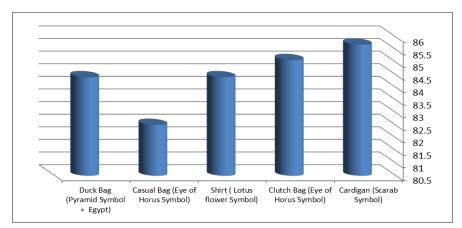


Fig. (6): Comparison between 5 products according to the Tourism and specialists' opinion

Fig. (6) represents a comparison between 5 products according to the specialist's opinion, it shows that cardigan with the Scarab symbol recorded 85.7, while the clutch bag with the Eye of Horus Symbol recorded 85.1, while the shirt with lotus flower Symbol got 84.4, while the casual hand bag with the Eye of Horus Symbol recorded 82.5, and finally; the casual hand bag with the pyramids Symbol and the word (Egypt) recorded 84.4. This means that the tourists and the specialists chose in the first place the Cardigan product no. (1) as a souvenir, and their last choice of souvenir products came down to the Casual Bagno. (4) (Eye of Horus).

Recommendations

- 1- Creating new aesthetic features in Ancient Egyptian art and integrating them with the modern handicrafts.
- 2- Expanding the work of studies dealing with modern artic techniques and employing them in reviving Egyptian heritage.
- 3- Providing greater opportunities for teaching the art of punch needle in colleges and technical school, as well as workshops and palaces culture.

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