



Study on Craft Culture and Features of Shandong Lu Brocade of China

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Received 12 March 2017; accepted 5 May 2017

Published online 26 June 2017

Abstract

China is one of the nations producing manual textiles at the earliest. With a history of a thousand years in southwest area of Shandong in China, Lu brocade is mainly distributed in Jining, Heze and other areas. As a kind of folk manual cotton textile in Shandong, Lu brocade takes cotton as main raw material, and adopts manual spinning, manually dyeing, and manual weaving, achieving colorful cloth, just like brocade and embroidery. This is why it is called Lu Brocade. The reason for Lu brocade to be passed on from generation to generation concerns a lot of the folk marriage of Shandong area. There are eight parts in its main process: spinning, dyeing thread, starching thread, wrapping, healding, crossing column, spindling, and weaving. Each process is divided into several sub-processes. Technically it can be mainly categorized into jersey technique, jacquard technique, tuck stitch technique, incision-making technique and package flower technique. For Lu brocade, jersey is the basic technique and jacquard is the core technique. Lu Brocade has distinct local specialty and practical value. Currently intangible cultural heritage protection is widely concerned, we should develop market, plan package, and conduct publicity and marketing for Lu Brocade, so as to promote the industrialized operation of the splendid traditional culture. Practice of several decades proves that the R&D and promotion of Lu Brocade products have affected the quality of Chinese manual textiles and people's life in a positive manner.

Key words: Lu brocade; Regional feature; Brocade craft

Wang, D. H. (2017). Study on Craft Culture and Features of Shandong Lu Brocade of China. *Cross-Cultural Communication*, 13(6), 28-32. Available from: <http://www.cscanada.net/index.php/ccc/article/view/9673>
 DOI: <http://dx.doi.org/10.3968/9673>

INTRODUCTION

In *Convention for the Safeguarding of the Intangible Cultural Heritage* issued by UNESCO (United Nations Educational, Scientific and Cultural Organization), "intangible cultural heritage" refers to various kinds of practice, various forms of performance and presentation, knowledge and technique as well as related tools, entities, crafts and cultural sites, which are deemed as cultural heritage by various groups, organizations and sometimes even individuals. In China it is called traditional culture or folk culture. Since the 21st century, the protection of intangible cultural heritage has become an issue concerned by all walks of life. It is not only the foundation of inheriting and developing Chinese national culture but also an important link of protecting the uniqueness of Chinese culture and reviving Chinese culture, so as to make great contribution to the world. In 2006, People's Government of Shandong Province declared "Shandong Lu Brocade of China" to be one of the first batch of provincial intangible cultural heritage. In 2008, the state council published that "Weaving Technique of Lu Brocade" as one of the second batch of national intangible cultural heritage. "Applying digital technology to develop market, plan package, and conduct publicity and marketing for Lu brocade and other intangible cultural heritage with a long history and local feathers, so as to promote the industrialized operation", the protection and R&D of the craft and artistic characteristics of Lu brocade are facing the best development opportunity. It is very necessary to deeply research on the local characteristics and technical features of Lu brocade.

1. BASIC CONDITION OF LU BROCADE

As a folk hand-woven craft, Lu brocade roots in the vast rural areas of Shandong and has formed its unique artistic characteristics during the long history of development. Dawenkou site of Xixiahou is nine kilo-meters away from the eastern urban area of Qufu, Jining, where pottery Ding with repp finish printed on the bottom and pot with fine linen printed on the bottom were excavated, indicating that our ancestors have mastered weaving technique five thousand years ago.

From the Spring and Autumn Period and the Warring States Period to Qin and Han Dynasty, Qi Kingdom, Lu Kingdom, etc. had been embroidery center of our nation. Dufu put in his poem, "Vehicles carrying silk is in endless stream in Qi Kingdom and Lu Kingdom, men tilling and women planting mulberry lives in natural harmony." During this period, common people in folk took ko hemp as main material of their clothes. Women took weaving with wooden looms as their widespread avocation. The story of Mencius's mother cutting off the loom is a very complete example. The type and structure of some ancient spinning wheels and looms are nearly the same to folk loom before liberation of China and are very similar to wooden loom used by rural weaving woman in modern society, including the oblique loom used by Zengzi's mother in the stone portrait of Han Dynasty "Zengzi's mother throwing loom shuttle" in Wu ancestral hall of Jiexiang county, Jining City, the loom in portrait "weaving woman seating in loom" carved on the triangle stone beam of Guo ancestral hall in Xiaotang Mountain of Feicheng County, Taian City, and the hand spinning wheel in the "Weaving Stone Portrait" of Han Dynasty excavated in Longyangdian Town, Tengzhou County, Zaozhuang City, with which a women in the left of living weaving portrait at the first and the second layer was weaving. They are all progenitor of present vertical loom for Lu brocade. Wangchong of Han dynasty put in his *On Balance*, "In embroidery town of ancient Qi Prefecture, every woman is good at weaving. In ancient Xiang County, if you want brocade, even the most clumsy women are adept at weaving brocade, for they see it everyday and their hands become deft", just describing real state of the local weaving women during that historical period. Wangchong put in his *On Balance*, "Caps, clothings and shoes of the whole China are made of silk and textures of Qi Kingdom and Lu Kingdom". Although it describes silk weaving, its craft and technique are the same with that of weaving of kudzu and hemp, since in folk clothes were mainly made of kudzu and hemp. It can be concluded that folk silk weaving in the southwest of Shandong has a history of at least two thousand years.

With a history of a thousand years in southeast area of Shandong Province in China, Lu brocade is mainly distributed in Jining, Heze and other areas. As a folk manual cotton textile in Shandong, Lu brocade takes

cotton as main raw material and adopts manual spinning, manually dyeing, and manual weaving, achieving colorful cloth, just like brocade and embroidery. This is why it is called Lu brocade. Since the mid-1980s, Professor Li Baijun of Shandong University of Arts and other experts have gone to southwest area of Shandong Province to carry out investigation and survey of Lu brocade, a texture made by local folk looms of that area. They have successively went deep into the rural areas of southwest area of Shandong to conduct investigation for over ten times in more than ten counties/cities, 39 towns and 61 natural villages for the development and promotion of Lu Brocade in southwest area of Shandong use as well as bringing Lu Brocade into public life of modern society. In 1986, "Exhibition & Report Meeting of Brocade of Southwest Area of Shandong and Modern Life" was held in Jinan, Shandong. "Exhibition of Lu Brocade and Modern Life" was held in Beijing, capital of China, and various major media widely report it. Meanwhile, *China Daily*, *Economic Information Daily*, *Farmers' Daily*, and *Art News of China*, published special reports on Lu brocade. In addition, Shandong TV stations and CCTV shot several feature films on Lu brocade, achieving strong response and praise from all walks of life. In this way, Lu brocade was widely promoted and used as the brand of folk manual cotton textile of Shandong. Since then, the R&D and production of Lu brocade have been gradually popularized and constantly developed. In 1987, in order to promote integration of Lu brocade culture and modern life, develop production by rural women and improve living standard, Canadian International Development Agency (CIDA) and All-China Women's Federation jointly organized bi-lateral cooperation project, namely, Juancheng Yangtun Lu Brocade Woman Weaving Association Training Center, in Yangtun village, Juancheng County, Heze City, Shandong province.

2. ORIGIN OF LU BROCADE

China is one of the earliest nations producing manual textiles. The plant fibre in clothes of ancients in China are mainly kudzu and hemp, therefore there is no Chinese character "棉" in ancient China. Later cotton cloth was introduced into inland. In order to distinguish the cotton from Chinese character "绵" representing silk, Chinese character "木" is added for cloth, called "木绵". Before Song Dynasty, people in central plain had not ever seen the original of herbaceous cotton and tree cotton and believed that cotton is made of fibre in *Bombax ceiba*, an arbor growing in Southern China. Therefore, they couldn't distinguish herbaceous cotton and tree cotton and *Bombax ceiba*, and called them "bombax" in a unified manner. In ancient books, there are also names such as platane wood, fortune paulownia wood, Guzhong vine, Suluo tree, etc., used to refer to tree cotton or herbaceous cotton. After

Song Dynasty, cotton seeds were introduced into inland and people began to know about the difference between herbaceous cotton and *Bombax ceiba*, and the Chinese character “棉” referring to cotton formally occurred.

During Ming and Qing Dynasty, the Yangtze valley is the area where the silkworm breeding and mulberry growing industry and silk weaving industry are the most advanced in China. After Ming and Qing Dynasty, the rising up of cotton planting industry and cotton weaving industry affected silkworm breeding and mulberry growing and silk weaving industry at certain degree. Compared with silkworm and mulberry, cotton “needs no collecting and breeding and enjoys harvest certainty”. Therefore, part of silk was replaced by cotton and part of silk fabric was replaced by cotton cloth.

During Ming and Qing Dynasty, cotton planting industry mainly distributed in the northern area between south of the Great Wall and north of the Huaihe River, including Shandong Province, Henan Province, Shanxi Province, and Shaanxi Province. In the later period of Ming and Qing Dynasty, Shandong Province and Henan Province enjoys the highest cotton yields with the richest varieties, laying a sound foundation for the formation and development of Lu brocade in southwest area of Shandong. As a folk hand-woven craft, Lu brocade roots in the vast rural areas of southwest area of Shandong and has formed its regional features during the long history of development.

After Song and Yuan Dynasty, the planting technique of cotton was popularized in Yellow River Valley. The southwest area of Shandong is located in the alluvial of Yellow River, enjoying popularization of cotton weaving industry. The people in southwest area of Shandong, consistently adept in delicacy work, mixed the technique of kudzu, hemp, silk, and embroidery together and created cotton spinning handicraft with extreme local features. It takes cotton yarn as main raw material and is practical crafts with local weaving and spinning. In this area, textile industry is prosperous. But women in vast rural areas also had the tradition of self weaving, self spinning and homespun producing.

Through the improvement of weaving tools of Ming and Qing Dynasty as well as the development of weaving process, the weaving process of Lu brocade has become perfect. In Qing Dynasty, Lu brocade produced in Heze and Juancheng was ever used as tribute to royal courts, being articles employed by emperors. After the Opium War, imported foreign cloth (machine woven cloth) entered Chinese market. As a result, hand woven cloth lost its attraction gradually, of which the market only was reserved in partial cotton areas. From 1985 to 1992, the investigation results of rural areas of Heze and Jinan in Shandong Province showed that there were nearly 300,000 ancient wooden looms and nearly ten thousands of masters good at brocade weaving. About Lu brocade technique, traditional Shandong folk brocade weaving takes cotton as

main raw material, and adopts manual spinning, manually dyeing, and manual weaving. Technically it can be mainly categorized into jersey technique, jacquard technique, tuck stitch technique, incision-making technique and package flower technique. Jersey is the basic technique and jacquard is the core technique, and the remaining three techniques are the extended ones of Lu brocade. Jacquard technique, tuck stitch technique, cutting flower technique and package flower technique for more than four healds of Lu brocade are the core of higher-level techniques of Lu brocade. About style, Lu brocade is a kind of folk manual cotton textile in Shandong, enjoying thick local flavor and distinct national features. It differs from other folk hand woven cloth in Shandong such as folk blue prints and folk color printing baggages, both of which cover printing process and form graphics pattern through printing and dyeing. However, by taking cotton yarn as raw material, Lu brocade is a colorful textile woven manually with brocade technique on wooden looms. It is called “Lu brocade” for short. Practice of several decades proves that the R&D and promotion of Lu Brocade products have affected the quality of Chinese manual textiles and people’s life in a positive manner, just as the special comment made on front-page headlines of *Economic Information Daily*, “It is one significant breakthrough that Lu brocade becomes attached to modern crafts, bring about new dawn in economic development of southwest area of Shandong....”

3. CUSTOM ABOUT LU BROCADE

For thousands of years in China, men tilling the farm and women weaving have continued for a long time. The widespread popularization of cotton textile industry in southwest area of Shandong is driven by the convenience brought by canal, and, above all, by the fact that the land is suitable to plant cotton as well as demand for cotton cloth in people’s life. Cotton is abundant in alluvial plain of southeast area of Shandong. Therefore, almost every rural woman here is adept at spinning and weaving brocade. Lu brocade is mainly produced in southwestern area of Shandong, of which Heze and Jining are the most famous places. Lu brocade produced in Juancheng of Heze and Jiexiang of Jining are typical representatives in color and figure pattern. The reason for Lu brocade to be passed on from generation to generation concerns a lot of the folk marriage of Shandong area.

The farm girls in southwest area of Shandong started learning brocade weaving since 12 or 13 years old, not only to help their moms to weave cloth for sale so as to support their families, but also to accumulate dowries for themselves in the future. That is, brocade weaving of farm girls is to meet the needs of family life on one side, and importantly to prepare brocade dowries for themselves. Brocade dowries mainly include quilt covers, mattress covers, bed sheets, dress material, and baggage. They

started learning brocade weaving from their childhood, grew into young girls in front of the non-stop looms, and grew into marriageable girls in the repetition of shuttles. It is just by the patterns and quantity of brocade that the girls' morality and craft were measured. According to the custom, bedclothes in wedding dowries is counted as the quantity of quilts and mattresses. Even in the poor families, the dowries will not be less than two mattresses and two quilts, while in rich families dowries may be as many as ten mattresses and ten quilts. The quantity of bed sheets in dowries was larger, generally there are more than a dozen plus a box of brocade in rolls. On vehicles full of cabinets, people will see the stacks of quilts and mattresses with covers and lining made of Lu brocade and the piles of bed sheets made of Lu brocade, which are so striking due to the subtle patterns and brilliant colors.

Locally, it is just by the patterns and quantity of brocade that the girls' morality and craft were measured. On auspicious days, dozens of colorful bedclothes of brocade and various clothing and decoration accompany brides to get married on the decorated palanquins. If the brocade bedclothes win the praise of the villagers from mother's home to husband's family, not only the bride feels exciting and proud, but also glory and respect will be achieved for the brides. The appreciation and appraisal on brocade of brides promoted the competition of brocade weaving technique. And this folk custom full of local characteristics is favorable for the development of weaving skills and communication of patterns of Lu brocade. Just because of the custom in southwest area of Shandong, few local women cannot spin and weave brocade. Both spinning wheel and loom are implements they cannot live without for lifetime. By giving full play to artistic creativity and expressive force, rural girls forged the weaving skills of Lu brocade to be perfect. Varieties of Lu brocade is increasing, application range is more and more wide and the product categories are more and more detailed, such as quilt lining, quilt cover, mattress lining, mattress cover, bed-curtain, bed sheet, handkerchief, dress material, baggage, and martial arts belt, each of which follow relatively fixed patterns and color collocation rules. The existence and development of Lu brocade enriched the folk activities mainly represented by marriage. Thus, Lu brocade and related folk activities are symbiotic and inherited today.

4. LOOM AND WORKING PROCESS OF LU BROCADE

The loom used for weaving Lu brocade is wooden vertical loom. Vertical loom is a complete loom equipped with a reed, warp beam, cloth beam, heald (single heald), treadles and bracket. By using shedding device lifting heald by treadles, vertical loom gets weavers' hands free, so that

the hands can specially conduct wefting and beating-up. Therefore, vertical loom has improved production efficiency greatly and promoted further revolution of the tools of wefting and beating-up. Loom for Lu brocade is wooden structure, which is made by local hardwood such as a common jujube, Chinese locust, etc. The structure is simple but solid and durable. Generally, the loom is 1.8 meters long, 0.8 meters wide, and 1.7 meters high. Since the deployment of the pattern start with healding, so the women pay much attention to healding skill and prefer collecting various patterns. The space reed (commonly known as "column") of the loom is made of bamboo chips, which determines the width and orientation of the warp. Beating-up strength of the space reed determines the flatness and evenness of the fabrics.

Southwest area of Shandong is an important cotton producing area since the ideal temperature, abundant rainfall, and adequate illumination create a suitable climate condition for cotton planting and growing. Since cotton yarn is raw material of Lu brocade, women weaving Lu brocade start with spinning. The period from August to September of every year is the cotton harvesting season. Because cotton bolls get mature on different date, it must be carried out repeatedly for many times to pick cotton followed by cotton drying and selecting. The weaving process of Lu brocade is extremely complicated. 72 procedures will be carried out from cotton picking and spinning to brocade weaving, all of which adopts purely manual crafts. Nowadays textile technology develops rapidly. Therefore, it's miraculous that craft of Lu brocade can hand down through thousands of years. It is said that the farm women in southwest area of Shandong can weave more than 1,900 geometrical patterns with lines of 22 colors, which are really amazing. Lu brocade is characterized by soft texture, bright colors, diverse patterns, simple and unconstrained style. There are eight parts in its main process: spinning, dyeing thread, starching thread, wrapping, drafting, crossing column, shuttling, weaving. Each process is divided into several sub-processes.

5. WEAVING FEATURES OF LU BROCADE

In the rural areas of Shandong Province in the past, almost all the year round except the busy seasons such as wheat harvest season and autumn planting season the looms were used continually for weaving brocade. Lu brocade fabrics by manual spinning and manual weaving not only meet people's need for clothing and bedclothes but also bring quite a few economic income through brocade selling. Two-heald fabrics in the early stage had a large portion because of its universal practicability in people's daily life. Weaving of two-heald fabrics is relatively simple. There are two healds on the loom and two foot plates

beneath the loom. Step on the first foot plate downwards and pull the warp to form a shedding, pass the shuttle from left hand to the right hand, then step on the other foot plate to close the shedding, and then move the cord case to fasten the weft. The steps above constitute a whole weaving process. By repeating the process, a deft person can weave cloth with the length of more than 30 feet if using single shuttle and monochromatic weft. Since the variation of two healds is subject to the fixed law including opening and closing, the fabric color can only be changed by changing the only weft color, and the fabric texture has no obvious undulation and grain. So the two-heald fabric is called male plain woven fabric usually.

The weaving process of four-heald fabric is the same as that of two-healds fabric, but the increase of heald quantity increases difficulty in weaving. When weaving different patterns, the orders stepping foot plates and the combination of two of the four foot plates are different. When stepping on two foot plates downwards each time, different wrap are driven to form shedding. After throwing the spindle and passing the weft, step on the other foot plates downwards, and then fasten the weft with the cord case. When stepping on the foot plates again, the foot plates are not the combination of the two foot plates last time. They are adjusted different according to fabric design. Taking twill for example, the first step is to step on the 1st and the 4th foot plates, the second step is to step on the 2nd and the 4th foot plates, the third step it to step on the 2nd and the 3rd foot plates, and the fourth step is to step on the 1st and the 3rd foot plates. The four steps above form a loop and by repeating these four steps, diagonal pattern with obvious jacquard effect will be woven. Plus constant change of weft colors, expression and creativity of pattern of the fabric woven with four healds are superior to that of fabric woven by two healds obviously. In weaving process, in order to remove the press brought by shuttling to the center of warp and keep cloth width, arciform width strut made up of thin bamboo chip slightly longer than the cloth width and fine needles on the two ends is required. Successively prick the fine needle on one end of the width strut to the left selvage, bend the bamboo chip to the left to let the fine needle on the other end prick the right selvage, and release the width strut to open the cloth by stretching force of the bamboo chip. After each fabric with the length of about 20 cm is woven, the shedding is close to the cord case, resulting inconvenient shuttling and weft fastening. At this time, successively put down the width strut, pull out biting machine, and take out the crutch blocking sacred flower teeth, roll the fabric to the cloth beam and block the sacred flower tooth with the crutch, and pin the cloth beam by biting machine to prop the width strut up. Then push the healds forwards, which are close to the cord case due to retrusion of the warp, and keep them vertical. Then weaving can be continued.

When weaving Lu brocade, a different number of shuttles are often prepared according to the design of fabrics, from one at least to a dozen at most. Usually, 4 to 5 shuttle are used. More colorful fabrics will be achieved with more shuttles. But frequent change of shuttles will affect weaving speed. So more colors of the weft have, the lower weaving efficiency will be. In the process of weaving, the warp and the weft are often broken. To avoid affecting fabric quality, the broken lines should be connected timely to prevent jumper.

CONCLUSION

Everything should be get ready when the warp on the scroll bar is released to the end. Because there is still some distance between the last section of warp and the healds, in order to weave all the warp to fabric, people often tie the sorghum stalk hanging the warp with two ropes, and then release the ropes gradually to deliver the warp to the healds, thus fabric can be woven as much as possible avoiding warp waste. And the last section of fabric is called “finishing weaving cloth”. However, because the final warp is not as straight as the middle warp, the fabric quality will be affected more or less. The operations of finishing weaving mainly include cutting off the warp, putting down the suspensory cord case, taking out the reed, taking off the healds, laying down the foot plates, unloading the fabric from the cloth beam, and rolling the cloth into rolls for use. The unused weft twined on the spindles will be rolled to thread rolls for use next time. By now, the weaving process is completed. By just using an old wooden loom as well as feet hitting and hand throwing, and accompanied by the repeated loom sound “tsiek tsiek”, the unsophisticated, industrious, and ingenious farm women have woven more than 1990 gorgeous patterns with myriads changes and art beating nature. Nowadays, it has entered the 21st century, the sound of spinning wheels and looms is still resounding in the cotton-producing area of remote rural area in the alluvial plain of Yellow River in Southwest area of Shandong.

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