

A HISTORICAL CONTEXTUAL ANALYSIS STUDY OF PERSIAN SILK FABRIC: (PRE-ISLAMIC PERIOD- BUYID DYNASTY)

Nadia Poorabbas Tahvildari¹, Farinaz Farbod², Azadeh Mehrpouyan^{3*}

¹Alzahra University, Art Faculty, Tehran, Iran and Research Institute of Cultural Heritage & Tourism, Traditional Art Department, Tehran, IRAN, nadiatahvildari@gmail.com

²Alzahra University, Art Faculty, Tehran, IRAN, farinaz.farbod@gmail.com

³Department of English Literature, Central Tehran Branch, Islamic Azad University, Tehran, IRAN, email: dr.mehrpouyan@gmail.com

*Corresponding author

Abstract

This paper explores the possibility existence of Persian silk fabric (Diba). The study also identifies the locations of Diba weave and its production. Based on the detailed analysis of Dida etymology and discovery locations, this paper present careful classification silk fabrics. Present study investigates the characteristics of Diba and introduces its sub-divisions from Pre-Islamic period to late Buyid dynasty. The paper reports the features of silk fabric of Ancient Persian, silk classification of Sasanian Empire based on discovery location, and silk sub-divisions of Buyaid dynasty. The results confirm the existence of Diba and its various types through a historical contextual analysis.

Keywords: Persian Silk, Diba, Silk classification, Historical, context, location, Sasanian Empire

1. INTRODUCTION

Diba is one of the machine woven fabrics (Research Institute of Cultural Heritage, Handicrafts and Tourism, 2009) which have been referred continuously as one of the exquisite silk fabrics during the history. History of weaving in Iran dated back to millenniums AD. The process of formation, production and continuity of this art in history of Iran took advantages of several factors such as economic, social, cultural and ecological factors.

Utilizing various fibers is the most essential feature of production of textile which makes a variety of textile fabrics to be produced for various applications. According to archaeological findings of Iran from the cave "Kamarband" near to Behshahr city (Kuhn, 1949 and 1951), knitting with wool and goat hair are very first natural fibers which has been used to weave clothes. Also, the archaeological findings from the hill Silk (Ghirshman, 1938), confirms the existence of linen; in the great civilization of Elam, wool and flax fibers has been used, but the use of silk in weaving of textiles in this civilization is also observed. As, Susa and Qarqub which were Elamite cities have been knitting centers. In addition to silk, wool and linen have been used for

weaving in the Seleucid and Parthian era; because Iranian were agents for trading silk fabrics from Western states to eastern states such as Roman and Persian weavers have given lots of efforts to learn weaving techniques (Roohfar, 2007). However, the progress and flourishing of textile production in the Sassanid era reach its peak and variety of textures and designs of this period show the weaver's skills in technique. Textile workshops were followed Sassanid practices and procedures in the first centuries of the Islamic period particularly during the Samanid and Buyids eras (Riyazi, 1996).

Despite of the conducted researches on the fabrics of ancient Persia and the Islamic period by archaeologists and Iranologists (e.g. Herzfeld, 1948-1879); Pope Walkerman, 1893-1977), there is no specific and documented independent research about the nature and characteristics of the Diba fabric, and entries about Diba has been provided amidst materials about various fabrics of ancient Persia. But weaving Diba by Roman captives in the Sassanid era clearly mentioned in the Skaya studies (1894). Farbod and Poorjafar (2007) have conducted a comparative study of textiles of Sasanian Persia and Eastern Roman (Byzantium) with historical-comparative analysis method. Farbod and Poorjafar (2007) have been investigated the effect of the Sassanid woven textiles on Byzantine textiles based on used motifs, themes and composition of woven textiles in the Sassanid Iran and the Byzantine Empire. These researchers suggested that Iranian Sassanid textiles may have a profound impact on textiles of Eastern Roman in terms of symbolic and decorative motifs. In another study on Sassanid and Buyids textiles' paintings (4th century AH / 10th century) from the prospective of Iranian-Islamic arts fundamentals and in the form of comparative and artistic analysis of paintings, textiles remaining from Sassanid and Buyids era is examined (Shayestehfar and Mousvi-Lor, 2003). Shayestehfar and Mousvi-Lor stated that Sassanid era motifs with the use of Persian-Islamic aesthetic principles have been reused in the Buyids era. Only research and study of the "Diba" fabric have been carried out by Farbod (2011) about the nature of "Shooshtari Diba" from the written texts perspective. This study noted that one of the most important varieties of Diba in ancient Iran (Sassanid era) and conducted with the aim of investigating the origin and significance of Shoshtari Diba through analysis of historical documentations. This study is able to provide an image of its pattern through descriptive, analytical and historical evidences.

Accordingly, the features, descriptions and various types of Diba fabrics in ancient literary and historical texts of Iran and the early Islamic centuries (until the end of Buyids) are examined in present study. Therefore, to achieve the structure and main features of Diba fabric, the manufacturing process and the evolution of this exquisite fabric in Iran, it is necessary to do a research the written texts prior and post to Islam.

The existence of Diba fabric in the past can be examine and track historical and literary texts, and then identify and introduce the location of weaving and production of it are of the principal objectives of the present study. Introducing and categorizing subcategories of silk fabrics based on terminology and the discovery location are some purposes of this study. This study attempted to help reviving the silk fabrics particularly Diba remained from the era prior to Islam to the end of Buyids.

It assumes Diba fabric, considered as one of the variety of silk textiles and noticed because of its patterns and colors. It had some varieties that descriptive analysis can provide some data about the location of production with different characteristics of colors, designs, quality and usage of Diba fabric.

2. MATERIAL AND METHODS

Present study was conducted in 2013-2016 in Tehran. Data were collected through library method based on historical documents and archaeological data prior and post Islam until the end of Buyids era. This study was conducted through historical and descriptive- analytical method and the type of this research includes practical case study. Due to the lack of field resources, data selectively were extracted from historical sources, and analysis methods based on logical and inferential argument.

2.1. Sampling

In the light of objectives of present study, the survey population included archaeological findings in archaeological sources, historical sources till the end of Buyids. Data were collected through archaeological findings in archaeological resources which includes 14 archaeological locations (9000 BC to 1000 BC), 16 inscriptions of Elam civilization, 33 silk fabrics were discovered in the ancient Iran (600 BC to 652 AD), and 12 samples of silk fabrics were analyzed from early Islamic centuries until the end of Buyids era.

2.2. Analysis Procedure

The researchers attempted to study the textile and Diba in two historical eras of prior and post Islam. In the first step, the study based on archaeological findings from the historical perspective and archaeological

evidence of ancient Iran were investigated as follows: History of Knitting presented based on the inscriptions, discoveries of weaving tools and machineries, and sample discovered fabrics of ancient Iran (Table 1); then to achieve the the characteristics of silk fabrics and archaeological findings of knitting and weaving in ancient Iran have been investigated since prehistory of Achaemenid period. As shown in Table 2, the classification of types of silk fabrics is developed during Sassanid period based on the discovery location; and discovery location is used as analysis measure for this section.

The second step of studying the Iran textile and Diba was carried out from early Islamic period to the end of Buyids era with a detailed study of historical texts; and Table 3 was developed using the archaeological discoveries of early Islamic centuries to Buyid period and is considered as the analysis measure for this section.

3. RESULTS AND DISCUSSION

3.1. Silk Weaving in Ancient Persia

3.1.1 Weaving in Elam civilization

After a structured study and perform screening of data about weaving in ancient Iran (see Tables 1 and 2), Iranians know various weaving methods and pose weaving skills since Elam civilization and weave it with the highest quality as Diba fabric in this era as well as global fame. In fact, Elamite formed a large government and invented industries. (Dehkhoda, 1998; Pirnia, 2007)

Some remaining early knitting workshops from the very first years of Elam era in Persian Art (Ghavami, 1995); and discovery of the archaeological findings of textile in coffin of an Elamite in the Arjan area (close to the Behbahan city) which were belong to eighth century B.C are valuable evidences about weaving in Khuzestan. Although, these linen fabrics are woven with very fine threads and rosette¹ flowers are embroidered on the edge of these fabrics. (Motaghd, 1990; Ryazi, 2003)

Also, one of Elamite carvings which belong to the early first millennium BC confirms knitting in Shush. This petroglyph shows a lady spinning a roetunded rod while wearing a long dress with decorative painted edges. (Majidzadeh, 1991). But, the greatest artistic achievements in the third millennium B.C of Elamite have been preserved in the works of stamp makers (Hints, 2012); as on some of these stamps, women in the workplaces seated on perches made of short woods or on the ground and often preparing wool (Hinz, 2009).

Textile and Silk trade has been thrived in the city of Susa which considered as one of the major economic centers of Elam. Susa was one of the crossroads of the world and was linked with other civilizations of Mesopotamia and Asia Minor via the means of communication, and this relationship was effective in getting or spreading ideas and cultures. On the other hand, Elamite posed commercial and cultural relations with India and have been affected from artistic influences of that land and vice versa (Amite, 1993). This matter caused the artistic advancement of ancient Iran² to a large extent be influenced by its geographical situation. While China in the Far East had a lot of experience in weaving fine silks, sheep wool was used in Central Asia and they had created rugs and carpets. Western Assyrians were known to weave wool and flax for centuries, and Indian cultivated and developed cotton in southern parts and applied it in textile industry. Iranian has been also able to take advantage of all these resources and create a new method in weaving; Iranians methods adapted these derived methods to match with their own way and attempt to improve it technically (Wolf, 2005). Based on historical evidence Khuzestan was known in the field of weaving various types of fabrics. The cities in which textiles were being weaved are shown in Figure 1.

¹ Rosette is a five-pointed flower can be seen in Achaemenian works

² Ancient Iran was situated between the Caspian Sea in the north and the Persian Gulf in the South, it was limited from West to Iraq, i.e. Mesopotamia, and from the east to Pakistan and Afghanistan (Prada, 1381: 1)

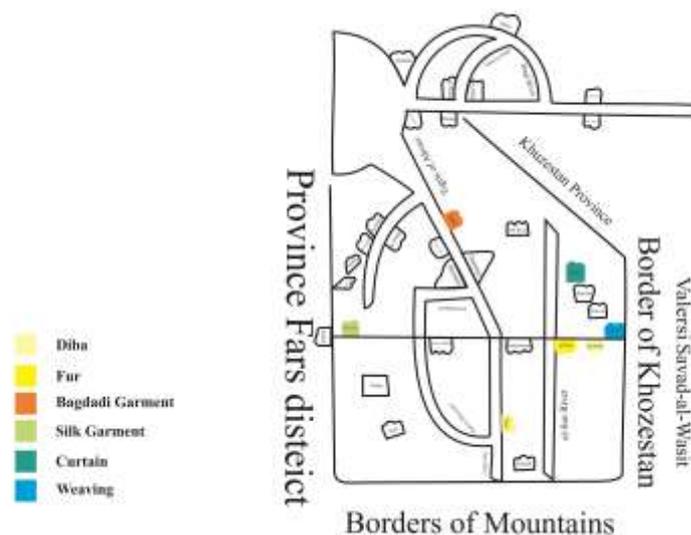


Fig.1: Map of Khuzestan and the center of the textil (Source: Estakhri, 1968)

After locating the weaving sites, the researchers attempted to classify the discovery of archeological findings of knitting and weaving fabrics (i.e. knitting tools and some piece of cloth) till the Achaemenid period which is presented in Table.1

Table 1. Based on archaeological finding of knitting and weaving fabrics of ancient Iran since prehistory to Achaemenid period

No.	Year/Century	Region	Evidence	Description	Reference
1	9000BC	Hasanloo-Lorestan	A piece of cloth has been discovered	Shows primary knitting	Motaghd, 1990, P.79
2	8000BC	Hasanloo-Lorestan	Semi burnt fabric pieces	The fabric consisted of weaved threads in S or Z shape from single or double raised threads decorated with small Knots	Ghavami, 1995, P.57
3	6000/7000BC	Alikosh Hills – Khuzestan	Straw, mat, Basket	The very first actual weaving remained on the surface of habitant houses and first actual knitting in from of weaved threads belong to 5000BC which has been discovered in ancient Tapeh-Yahya Hills of Kerman	Ryazi, 2003, P.14
4	5000BC	Yahya Hills - Kerman	The first woven with thread		Ryazi, 2003, P.14
5	5000BC	Se-Kapi Hills / Kurdistan	A piece of fabric is used around a container	It is the very first archaeological found evidence	Ghavami, 1995, P.57
6	5500BC	Silk Hills / Kashan	Flax fibers	Flax fibers with right and left twist	Ghavami, 1995, P.57
7	5000/5500	Ali Spring- Anou	Discovery of	Introduction of	

	00BC	I, Dalma Hills, Pizdeli Hills, Azerbaijan,/Gar a Hills (layer XII, XIII), Nouzi XII, Segabi Hills, Bakoon Hills BII/ Fars	Perforated Spindles	emergence of knitting and better control of yarns and alter it to finer and smooth threads	Ryazi, 2003, P.11
8	4000BC	Chaghamish / Khuzestan	Number of Nuts	Women are shown weaving with spindle or frame	Ryazi, 2003, P.12
9	4000/1000BC	Susa / Khuzestan	In a form of remaining on metallic objects with a fine weavings	Showing weaving in simple method	Ghavami, 1995, P.57
10	3000BC	Hesaar Hills / Damghaan	Some burnt fabrics has been discovered		Ghavami, 1995, P.57
11	3000BC	Susa / Khuzestan	Fabric remaining		Ghavami, 1995, P.57
12	3000BC	Susa / Khuzestan	Two piece of flax cloth	Soft and rough	Ghavami, 1995, P.57
13	2900/1900BC	Burnt City / Sistan and Baluchistan	Tiny pieces of thread and cloths preserved under salt	Showing weaving in simple method	Motaghd, 1990, P.79
14	1000/2000BC	Marlik / Gilan	Tiny pieces of rusted fabrics, braids, pieces of confirmed threads	Showing weaving in simple method	Motaghd, 1990, P.79
15	1000/2000BC	Marlik / Gilan	Rusted remaining of cloth	Weaved Rope and lace	Negahban, 2000, P.78
16	1500BC	Haft-Tapeh Hills / Khuzestan	Remaining of a fabric on an Inscription	needle, pulley, hook, and also button has been discovered	Negahban, 2000, P.426
17	1000BC	Susa / Khuzestan	Inscription of knitting woman and her Abigail		Amiet, 1993, P.68

3.1.2 Fabric weaving in Medes and Achaemenid

Median kingdom was short-lived and therefore so far it has been impossible to provide a review of Median Arts; also, any place where certainly belongs to Median has not been excavated and any Median inscription artwork has never been discovered (Prada, 2004). That is why a few information exists on textile and its quality in this period of time. To collect the data on this subject, Aristophanes quoted in 411 BC can be mentioned that described clothing of Median in which he mentioned extremely thin and transparent cloths referred as Median clothing (Wolf, 2005). Also, some information can be obtained from the wear of statues or preserved artworks of this period. The evidence of this matter are Nineveh reliefs and remained sculptures of Median men and women in Lorestan and Oxus treasure; these evidences show the prosperity and proficiency of fabric weaving in this period. In any case, in spite of craftsmanship and starring of the Medes on bronze, sculpture and pottery-making, it seems that fabric weaving art has been also progressed; because, later on Median cloths have been appreciated greatly. Various decorations which can be seen on porcelain pottery of that time indicate shows that probably at that time, fabrics have been woven with attractive patterns. (Diakonov, 2001).

Continuity of Median cloths can be seen in Achaemenid kings clothing because the Median clothing has been still considered. (Moshirpour, 1966). With surveying and simultaneous comparison of artworks and written resources of Achaemenid some information about weaving art of Achaemenid can be presented (Pope, 2008). Fabric weaving in Achaemenid period, especially in terms of weaving silk, fine and soft woolen fabrics was known and kings of this period are known for having beautiful and fine clothes. (Pope, 2005)

About knitting in Achaemenid period some quoted descriptions can be mentioned. It has been recorded that: Quintus Curtius Rufus (1st century) in second volume of Ancient Iran mentioned Iranian fabrics which has been woven by women. Herodotus (c. 484–425 BC) is also reported that Amis-Tris, wife of king Xerxes woven costly fabric of King's clothes and narrated a story on this subject. (Gheybi, 2008). The book of Esther (the late 2nd to early 1st century BCE) introduced fabric weaving in the Achaemenid time as "Achaemenid palaces were decorated with colorful and beautiful curtains". Also, in the description of Persepolis architecture stated that "curtains between the columns of the palace was draped that on them various animal images were depicting nicely" (Godar, 1998).

Colourful pottery on the walls of a palace at Susa that shows eternal soldiers indicates an example of Achaemenid textiles weaving; clothing of immortal soldiers has detailed patterns. Also linen and purple cloths and a few other colorful fabrics that belong to kings is also mentioned; a large number of tablets in Susa pointed textile art. (Kalyan, 2005; Wilson, 1939). Achaemenid have also made sewing gold adornments to the clothes common in Iran. (Ghirshman, 1992).

Achaemenid though learning method of preparation of silk from Assyrians, exported silk to Greece. Discovery pieces of silk textiles with Chinese origin and silk cocoons of wild silkworm origin belonging to the fifth century BC in the graves of Greece and the Crimean Peninsula conforms this fact. (Reyazi, 2003; Wolf, 2005). It is possible that the Achaemenid workshops also produced silk too and probably precious fabrics meant silk fabrics with cords of gold; However, examples of fabrics of this period have been discovered in Susa and Persepolis that some of them looks like silk fabrics and suggested that silk hanks most likely was imported from China and were converted to fabric in factories of Iran e.g. Hamadan and Susa, etc. Among silk clothing in various designs, sometimes some warp and weft made of

Textiles and silk trade in Median and Achaemenid periods was a global business and was exported to other states via land and sea. As luxury goods such as: "... , Qarantesh, Malatya, Qartajneh, etc." were a part of economic exchanges. (Giresman, 1996).

The pattern and motifs of Median clothing that can be seen on archaeological findings, indicate that weaving had evolved. Various types of linen, cotton and silk fabrics can be seen in the remaining of the Medes and tissues and different patterns of cloths can be identified. A large number of imprinting and precious clothing have obtained from Sardis graves which considered as the capital of the Achaemenid of Iran. (Gheybi, 2008) Among archaeological finds in Pazyryk grave No.5 along with objects imported from Iran, a piece of Chinese woven silk fabric with very delicate embroidery and some other silk fabrics have been found. It seems that only kings of Iran were able to possess this valuable object; since the beginning of the first millennium BC and perhaps earlier in India, wild silk was available from Assyria (Koch, 1997).

Vanishing of the Achaemenid let the art of this period to be under the influence of Greek art while Seleucid ruled Iran. (Dehkhoda, 1998 and Koch, 2000). Seleucids were the owner of large roads between continents, and Iran was placed on the path of China and India. This matter applies to business growth during the Seleucid prosperity. Certainly, the main economic factor of this period was Roman entering into the game of global trade. Commercial goods with India are: Judas tree, textiles, clothes, ornaments, etc. Plentitude of raw materials had resulted in the development of industry; particularly textile, carpet weaving etc. where Iranian artists and artisans had a great reputation in them flourished. (Ghirshman, 1995).

After the Achaemenid and during the Parthian period, Textile and Silk trade took place in the Silk Road. (Ghavami, 1995). In the Parthian period, textiles were one of the goods that imported into ancient Iran and also industry and craft had good activity in this period, so in the terms of quality, textile and other industry went toward perfection. A strong tie existed between Rome and Persia and these two were industrial centers during Parthian period. (Ghirshman, 1995).

In the Parthian period silkworms were imported from China. (Ghirshman, 1995). However, silk exports to Iran coincided with the Han Dynasty in China, while sericulture and silk industry was spread largely with good quality in Iran (Pope, 1959).

It seems that after the invasion of Alexander the Great and the Seleucid Empire, practices of the art of Greek fabric weaving were mixed with Iranian art of fabric weaving; however, with the little available evidences of

this period, it can be stated that it is not true, and Iranian continued their traditional textile weaving practices. (Pope, 2008).

The nobles, princes, and the royal family dresses were sewn from premium fabrics and materials during the Parthian empire. As shown in figure 2, Image of King and his Queen in the Mount Khajeh is an evidence for the fabrics of this period.



Fig.2 King and Queen in Mount Khajeh (Source: Seif, 2001)

According to archaeological findings, any Parthian textiles have not been discovered in Iran. Some pieces of silk fabrics from this period have been discovered in Syria. Also, some of the silk fabrics discovered in China that it seems to have the Parthian Empire features. (Wilson, 1939). The only sample fabric discovered of this period is a piece of cloth, discovered in the Parthian tombs in the Garmy area of Meshkinshar, located in East Azerbaijan. The fabric is imprinting and colored. (Gheybi, 2008).

During the Parthian era, brocade and silk fabrics were woven and knitting fabric in this period had two various methods which were commonly used. One of the weaving fabrics method was Chinese-style i.e. composed warp that two warps with contrasting colors were used; According to the necessity of the scheme, a portion of each warp was brought on the fabric, and kept by passing the weft that passes between two warps without any involvement. Another weft is similar to normal weaving and engaged with the both warps in a time. To change the pattern and design, wraps must be changed. Alternative method which is an innovative method of Iranian weavers at the West was in the contrary with the Chinese method; i.e. two warps method which combined fabric were woven. In fact, according to the design and pattern of cloth, one of the wefts on the fabric and sometimes (but not always) these two rows interlaced with the weft which is not engaged with any warp (Wolf, 2005).

3.3.3 Knitting Fabrics during Sassanid period

Sassanid dynasty was the most powerful and famous Iranian dynasty after the Achaemenid dynasty. During the third century to the early seventh century, weaving of Iran posed its credit. As, silk textiles of this period because of having glorious patterns and clear colors were outstanding. The discovery of multiple pieces of Iranian silk and wool fabrics in Turkestan, China, Japan, the Caucasus, France, Syria, Egypt and Italy confirm this claim. (Ghirshman, 2011). Knitting fabric in Sasanian period from the texture and the use of woven view of point is the most important era of ancient Persia. The abundance of raw materials and weaving workshops in different cities including Khuzestan in this period led to the production of fabrics in various designs. To study and examine fabrics of this period the very first strong evidence of Sassanid etched textiles was found on bas-reliefs of Sassanid Khosrow II (carved: 591 628 AD) remained on Taq-e Bostan, which dates back to the time before the engraving itself. (Frye, 1994).

In this era of silk and its related industry was very common in most cities of Iran particularly in the cities of Susa, Shushtar, Dezfoul and Jundishapur, and each of the Iranian cities produced a particular type of cloth with different styles. (Pope, 2008). Iranian businessmen at this time had also the monopoly power of silk from China to Rome; further, sometimes the development of silk weaving industry of Iran was in such a way which is not only Iranian and especially Iranian women had been freed from the need for foreign goods, but it also damaged the production and trade of silk in Rome; till the point that Byzantine church was forced to declare the use of fabrics and silky textures of Iran inadmissible. (Takmil Homayoun;1996).

After the wars of Shapur I, the production was associated with the new economic phenomena has been spread. New fields of career and technology were emerged and new people start to work in the artisan's

workshops. Prisoners of war were vastly used in various businesses and Roman prisoners who lived in Iran had a satisfactory situation and condition. Posi was one of the captive-born Romans that transferred to Shapur city (Bishapour) in Persian Empire by Shapur, the son of Hormuz; Shapur organized a workshop for him in his palace. (Pigoloskaya, 1993). Posi's father was one of the captives who lived in Shapur city. Posi was a great weaver and skilled craft specialized in making brocade silk fabrics. To narrate this issue in a Syriac source, the Greek word for "Metaxa" was used, which means "raw silk" interwoven with gold. (Pigoloskaya, 1993). At the time, Posi was a master weaver and skilled artist aware of his art and had a great reputation to the Shah. Posi has always been able to gain the honor of gifting Shah. Posi became rich and achieved many honors and was chosen as the head of Khuzestan Skilled-workers and obtained many honors. At the same time, the king appointed him as the head of other respective countries under Shah Rule. Other Persian language sources have also noted Posi and called him "Posik Qarugbed". (Pigoloskaya, 1993). As mentioned, manufacturing of 'Diba' were coincided with the time of Shapur II. (Pigoloskaya, 1993).

The quality of woven silk in the Sassanid era is indicative of the king's attention to this art. The employment of Syrian technologists by the order of Shapur II, and establishing workshops in various cities of Iran such as Khuzestan, Susa etc. caused the boom of silk fabrics. Many countries of the time which were engaged in weaving fabrics, imitated the beautiful silk fabrics patterns of Iran. (Gheybi, 2008). In the Sasanian period, the government monopolized raw silk which was imported from China and utilized it in their Syrian-Phoenician workshops; and workshops of Susa, Shushtar, and Jundishapur started to supply their products in competence with Syrians which obtained world fame. The products were developed in this period hence the exchange of silk textiles and clothing trade was very noticeable. (Ghirshman, 1995).

Han Tsang, Chinese traveler who visited Iran at the beginning of the sixth century AD, praised Iranian weavers' skills to produce beautiful fabrics of wool, silk and silk lace embroidering. Centers of fabric texture in Sasanian time were in Susa, Shushtar, Jundishapur and was Basyneh. In the cities and towns of eastern Khorasan, producing brocade fabrics was considered as an important industry. Many precious fabrics which were woven there have been sent to the Middle Ages Europe and in Europe have been used in holy sites, clothing of church and priests and also as the clothing of kings for their coronation. Clothing that remained from those days complete our information about the skills of textile weavers during Sassanid period. (Wolf, 2005).

Fabrics which are named in the books of Sasanian period such as Qurur-Alakhbar of Mulouk Al-faris Saalebi and Mojmal al-tawarikh (author unknown) and the book of Hamzeh Isfahani are Include: Shahjany, Dabyqy, Touzi, Shatvy, Munir Razi, Melhem Marvazi, Khaz, Vashi and etc. that are used in different seasons. (Christensen, 1989; Gheybi, 2008). Silk tissue has been also flourished during this period and entered into Europe from the Orient. (Takmil Homayoun ,1996)

In the Sasanian period, two types of weaving can be seen. One method was the same of two warps combined method invented by Iranians and composite fabrics production. Another method of this period was composed twill weaving which became more popular than composite fabrics. (Wolf; 2005). Weaving patterned fabrics was begun about 1000 BC in the West parts of Iran as a two weft pattern. In this method both the warp and woof are used at a time, that one of them is for simple weaver and the other will be brought on the fabric only on the places which is needed by pattern otherwise was hanged on the back of the fabric. This is the simple type of composite fabric which is called "Combined pattern woof".

At the beginning of the Christian era, a different approach in weaving composite warp fabric was found in China. During the Parthian era, Chinese method was common in Eastern parts of Iran. When this method spread to the west, Iranian weavers because of getting used to the pattern of knitted fabrics, reverse engineered the Chinese method and wove a combined fabric. This new hybrid approach has been never gone away and in the same way it went to the Eastern Roman (Byzantine), Sicily, Italy, and northern Europe, where was known as composite fabrics there. Since the Sassanid era, twill composite fabric weaving became more common than composite fabrics and this method of weaving is still being used to this day. (Wolf; 2005).

Iran which was placed between China (the country leavening silk) and Rome (the largest consumer of the precious real silk textiles), became the country which has the transit of raw silk and processed silk. Great Sassanid kings who were willing to develop this branch of supplying textiles in Iran, in pursuit of their conquests in Syria, relocated a large textile weavers and located them in various states of Iran particularly in Khuzestan. (Ghirshman, 1995).

With this interpretation, there is no Sassanid fabric type of Susa except a Byzantine silk fabric pieces belonging to the third or fourth century AD, some its parts can be visited in museums in Barcelona, Spain

museum, Berlin Textile Museum and Cooper Union museum and motifs of elephants, peacocks, and monster-like Pegasus, each in a circular frame of Pearl bar and clearly are an imitation of silks of Susa or Shushtar. It is impossible to know it as Byzantine style because it does not only have Byzantine color and feature details, but original Sassanid style is clearly visible in that. A method which was continued to the Third and fourth centuries AD in Khuzestan. (Pope, 2008).

Sassanid silk fabrics based on discovery location and formulation are analyzed (see Table 2)

Table 2: Sassanid silk fabrics based on discovery location, formulation: authors

No.	Type of Fabric	Weaving Region	Simple/ Patterned	keeping place	Reference	Description
1	silk	Shushtar	Motifs: animals, plants, geometric Motifs colors: black, red, light green, yellow background: dark blue	Berlin, textiles treasures, unordered (Figure 241 a)	Pope and Ackerman: 2008, Vol.02 :876	
2	silk	Shushtar	Motifs: animals, plants, geometric Motifs colors: white, green Background: dark blue	Berlin, treasures textiles, No. 78/646, Krefeld, treasures textiles, No. 274, Paris, Museum of Decorative Arts, the A 14617, Hermitage Museum (plate 199 a.	Pope and Ackerman: 2008, Vol.02 :877	Color image printed on: - Lessing, Die Gewebe, Sammlung , .P I.53A
3	silk	Shushtar	Motifs: Animal Motifs colors: purple, dark yellow, red, green background: dark blue	Berlin, treasures textiles, No. 84/216 (Figure 241 b)	Pope and Ackerman: 2008, Vol.02 :877	
4	silk	Shushtar	Motifs animal Motifs colors: green, purple, yellow Background: dark blue	Brussels, the Museum Synkantnr 609, Florence, MuseumBarjlv, No. 629, New York, Cooper Nyon, No. 02/1/214;Paris, Museum of Decorative Arts,No. 16325, London, Victoria and Albert Museum, no.1892-761 (plate 199 b)	Pope and Ackerman: 2008, Vol.02 :878	Sample in Cooper Union has a Purple line which is relatively flat. Color image printed on: - Lessing, Die Gewebe, S ammlung , .P I.22b
5	silk	Khuzestan	Motifs: animals, plants, geometric Motifs colors: green Background: green	London, Victoria and Albert Museum, No. 8579-1863;Paris, Museum of Decorative Arts, two pieces no.16884, 19166 (plate-200)	Pope and Ackerman: 2008, Vol.02 :878	Color image printed on: Lessing, Die Gewebe, S ammlung Herzfeld.Am Tor; Pl.20 Von Asien, Pl. LXII
6	silk	Khuzestan	Motifs: animal Motifs color: light blue background: dark blue	Treasure textiles, No. 450/78 (Figure 234)	Pope and Ackerman: 2008, Vol.02 :878	
7	silk	Khuzestan	Motifs: geometric Motifs Color: white, red background: dark blue	Berlin, treasures textiles, No. 87/772	Pope and Ackerman: 2008, Vol.02 :878	
8	silk	Khuzestan	Motifs: geometric, doubleheaded ax Motifs: black	Hermitage Museum	Pope and Ackerman: 2008, Vol.02	

			background: purple Margin: text lines is there		:879	
9	silk	Khuzestan	Motifs: animal, plant Motifs colors: natural silk unpainted Background red	Berlin, treasures textiles, No. 87/769 (Tablet 198 A)	Pope and Ackerman: 2008, Vol.02 :879	Color photo printed in: Herzfeld, Am Tor vpn. Asia, PI LXIII
10	silk	Khuzestan	Motifs: animals, geometric Motifs color: the color of natural silk (unpainted) Background: red	Paris, Marcel set Gurion (Figure 244)	Pope and Ackerman: 2008, Vol.02 :879	
11	silk	Khuzestan	Motifs: animals, geometric motifs color: purple background: dark red	Berlin, treasures textiles, No. 82/1171 (Figure 264)	Pope and Ackerman: 2008, Vol.02 :879	
12	silk	Basna	Motifs: Shape of the heart Stone motifs color: yellow, blue or red background: German red	London, British Museum, No. 922 (Chapter 00178)	Pope and Ackerman: 2008, Vol.02 :880	
13	silk	Basna	Motifs: Shape of the heart Stone motifs color: white, blue or red background: dark red	Paris, Louvre Museum, set Plva pelliot (Tablet201 B)	Pope and Ackerman: 2008, Vol.02 :880	The heart pattern is decorated with gem.
14	silk	Khorasan	Motifs: animals, plants, geometric Motifs human painted: red background: white	Hermitage Museum, No. 88/148, Berlin, treasures Textiles, without number; Metropolitan Museum of Art, No. 90/5/6	Pope and Ackerman: 2008, Vol.02 :880	
15	silk	Khorasan	Motifs: animal Motifs painted: dark blue background white.	Paris, Guimet Museum, No. 365 (Tablet 202 A)	Pope and Ackerman: 2008, Vol.02 :881	Color image, but renovated in: E.Guimet, Les, Portraits dAntinoe Paris, s.d., PI.VI
16	silk	Khorasan	Motifs: animal Motifs painted: dark blue background white.	Paris Guimet Museum, No. 370 (Tablet 202 b)	Pope and Ackerman: 2008, Vol.02 :881	
17	silk	Khorasan	Motifs: animal Motifs painted: dark blue background white.	Berlin, treasures textiles, No. 84/280 (Tablet 201 A)	Pope and Ackerman: 2008, Vol.02 :881	
18	silk	Khorasan	Motifs: animal Motifs painted: Blue background: yellow	Berlin, treasures textiles, No. 96/310	Pope and Ackerman: 2008, Vol.02 :881	Color photo printed in: Lessing, Die Gewebe, S ammlung PI.22a
19	silk	Khorasan	Motifs: animals, geometric, animal Motifs painted: Green, Black background: White	Vatican Museums Cristiano (Tablet 202 c)	Pope and Ackerman: 2008, Vol.02 :881	Color photo printed in: [img alt="book icon"] - Lessing, Die Gewebe, S ammlung PI.22a

20	silk	Khorasan	Motifs animal Motifs painted: blue, white, green Background red	Vatican Museums Cristiano	Pope and Ackerman: 2008, Vol.02 :881	
21	silk	Khorasan	Motifs animal Motifs painted: blue, white, green Background red	Vatican Museums Cristiano (Tablet 201 c)	Pope and Ackerman: 2008, Vol.02 :881	Color image printed on it: - Lessing, Die Gewebe, Sammlung PI.21 Herzfeld, Am Tor von Asien, PI, LXII
22	silk	Sassanid East	Motifs: animals, geometric	Museum of Delhi, 03 .5 .Ast. i (Tablet197)	Pope and Ackerman: 2008, Vol.02 :883	
23	silk	Sassanid East	Motifs painted: dark blue, green background white.	Museum of Delhi, 01 .6 .Ast. i	Pope and Ackerman: 2008, Vol.02 :883	The study paced through the printed copy
24	silk	Sassanid East	Motifs: animals, geometric Motifs painted: probably green, yellow background: dark blue	Museum of Delhi, 01 .6 .Ast. i	Pope and Ackerman: 2008, Vol.02 :883	This fabric has been studied only based on its description
25	silk	Sassanid East	Motifs: plants, geometric Motifs painted: green, yellow background: dark blue	Museum of Delhi, 01 .1 .Ast. i (Figure 247)	Pope and Ackerman: 2008, Vol.02 :883	This fabric has been investigated only based on its pattern
26	silk	Sassanid East	Motifs: plant, painted geometric Motifs: background: dark blue	Museum of Delhi, 01 .Ast. i. 3. b	Pope and Ackerman: 2008, Vol.02 :883	This fabric has been studied only based on its description
27	silk	Sassanid East	Motifs: geometric, plant Motifs painted: blue and green background: yellow	Museum of Delhi, 01. 0.2. .Ast. ix	Pope and Ackerman: 2008, Vol.02 :883	This fabric is examined only based on its printed image. Published in:, Stein, Linnermost Asia PI.LXXIX
28	silk	Sassanid East	Motifs: plant, painted geometric Motifs: background: dark Blue	Museum of Delhi, 01. 0.2. .Ast. ix	Pope and Ackerman: 2008, Vol.02 :883-4	This fabric has been studied only based on its printed image
29	silk	Asia Central (Basna)	Motifs: animals, geometric Motifs painted: brown tend to yellow, natural color of silk, which is discolored. Background: Rred	Delhi Museum, 01. 1. .Ast. vii	Pope and Ackerman: 2008, Vol.02 :883	The fabric just examined only based on its Published sample, Stein, Linnermost Asia PI.LXXVII
30	silk	Transoxiana	Motifs: plants, geometric Motifs painted: White background: purple	Berlin, treasures textiles, No. 87/774 (Tablet198 BC)	Pope and Ackerman: 2008, Vol.02 :884	
31	silk	Transoxiana	Motifs: plants, geometric Motifs painted: Black	Berlin, treasures textiles, No. 87/767	Pope and Ackerman: 2008, Vol.02	

			background: red		:884	
32	silk	Transoxian a	Motifs: plants, geometric Motifs painted: Black background: red	Berlin, treasures textiles, No. 87/764	Pope and Ackerman: 2008, Vol.02 :885	
33	silk	Transoxian a	Motifs: plants, geometric Motifs painted: Black background: red	Berlin, treasures textiles, No. 87/762 (Tablet 198 b)	Pope and Ackerman: 2008, Vol.02 :885	

Knitting fabrics in Iran: Since the early Islamic period to the end of Buyids

Further, the Technique used in the cases of 1- 24 (see: Table 2) was weaving of compound woof (tress-like) which is placed on two warps, compound woof textured tress-like including three unpainted rough internal warps placed between both the twisted warp.

No special technique was found in the cases of 25, 26, 28 and 29. The weaving techniques used in the case of 27 is compound woof (tress-like) where placed on two warps and compound woof is including rough internal warps and it is repairable (twisted) or single.

Weaving Technique of compound woof (tress-like) where placed on two warps is used in the cases of 30-32. Its compound woof also includes an internal rough internal warp which is located between two twisted woofs. In terms of color, warps became more beautiful and woofs are thick and flattened.

In the case of 33, used weaving technique is a compound woof (tress-like) which is located on two warps. Its compound woof is also including an internal single warp which is located between two twisted woofs.

3.2 Silk Weaving in early Islamic Period up to Late Buyid Dynasty in Persia

3.2.1 Silk Weaving in early Islamic Period

The reputation of Iranian fabrics in early centuries of Islam was such that luxurious fashioned leaders of Umayyad's court who took care of their appearance greatly used to wear the garments of fine silk from Khuzestan. Al-Araji, the elder son of Othman, in one of his sonnets characterized himself in a fringed robe woven in the city of Susa. (Pope, 2008). But, Taherids and Saffarids governments were not given that much importance to textiles. According to the provided information by Moqaddasi (945/946-991 ce), due to the economic and trade boom in the Sassanian period, the trade of fabrics, carpets and white robes in different regions of Transoxiana has been mentioned in texts. (Al Muqaddasi, 1982). During Ziyarid era, the economy has been based on trade and manufacturing of silk fabrics and Diba that had been common in the region of Deylam and the author of Hudud Al-'Alam has mentioned it: "from this area, mono-color and colored silk and silk garments raised e.g. Mobram³, silk and such these fabrics. Also, the residence of the King of Tabarestan was Amol and the center of important family of Ziyarid (104-928) was Gorgan. "Gorgan is a big city and is the center of black silk garments such as Vaghayeh, Diba and Ghazin."(Minorsky, 2004). "Therefore, the people of Deylam due to abundant production and export of silk and cloth, were considered rich people." (Torkamani, 2010).

Islamic practices of weaving fabric were the continuity of utilizing textures and style designs of the Sasanian period; as paintings interspersed with images of hunters and warriors, single or in pairs, were the favorite of early Islamic rulers and medieval Europe. This dimension of Sassanid heritage which was mainly based on the monarchy of kings' and their affiliate iconizing hit throughout the Islamic world, Christian Europe, China and Japan and remained unchanged until five centuries after the extinction of the Sassanids. (Ferrier, 1995; Rouhfar, 1988). The evidence of this fact is the debris of initial Islamic silks in the European churches that can testify that there has been a perfectly organized business along with monarchic gifts which caused to send the outcome of Iranian weaving workshops to European countries. (Ferrier, 1995).

Ferrier (1995) noted that the details of this period production and trade of fabrics can be found in written and historic documents and geographers (e.g. Estakhri 957 ce.; Hawqal 978 ca; Moqadasi 991 ce; the author of

3. According to Dehkhoda Dictionary, Mobram is a silk garment with tight and strong weaving fabric.

Hudud al-'Alam 982 ce). Although, determining types of fabrics remained ambiguous and distinguish them from each other is difficult. Weaving workshops continued their activities of weaving textiles in the cities of Susa, Ray and Marv where were earlier under the dominance of Sassanian. These workshops in their main works did not noticeably change the form of designs and quality of tissues. Susa was famous because of its Roman silks. Fasa in Fars Province was famous for the curtain of silk and woolen fabrics with Shamse⁴ motifs and margins which has been woven particularly for the Emir of time.

Activities of weaving workshops and trade of fabrics during first Islamic centuries can be revealed through the remained documents of offering goods. During the reign of the Abbasid Caliph al-Ma'mun in the third century of Hijri calendar, the payment of taxes from different parts of Iran were including: Twenty garments from Gilan, from Sistan three Atabi, from Gorgan a thousand silk, etc. This is an important evidence of the activities of various textile workshops in different parts during those years. Also, Ali bin Isa Ibn Mahan, representative and deputy of Harun al-Rashid in Khorasan, used to send highly valuable cloths as tax which among them there were fabrics such as Susa fabrics, Malham, Dibaj, and Turkish Diba. At this point, it is noteworthy that probably fabrics have been also woven in the Shushtari method in Khorasan. (Pope, 2008).

Baker (2006) asserted the evidence of Islamic textiles discovered in a cemetery near Tehran then it can be concluded there were an advance weaving of fabrics in the northern parts of Iran for funerals with signs and religious writings especially with some irregular shapes in the early centuries of Islam. It is notable that tribute was paid in the form of silk. Textile was booming in the Northeast of Iran in the early days of Islam particularly in the northern and eastern regions of Buyids Empire. As in Mesopotamia, Sogdian wore silk cloths based on the methods of the Sassanid and they trade with China. Bukhara at the time of the Sassanid was a place where considered as the global market and trade of silk fabrics. (Ferrier, 1995).

Through the remaining documentation of the workshop and weaving practices in Taraz city, it can be realized that weaving fabrics were developed in that city. Taraz city where were located in the south of eastern Turkmenistan and north of current Afghanistan introduced "Taraz-Diba" which gained global popularity. Most pieces of Taraz has been discovered in the city of Fustat in Egypt; and the maximum amount of this silk-alike cloth has been produced in Egypt. (Ferrier, 1995).

A variety of words which has been used for cloths in the early days of Islamic Period Shown the rich diversity of designs, color combinations, as well as a variety of silk's qualities; but their meaning are unclear. A written document remained from late years of six century of Islamic calendar titled "al-Dibaj" described a famous silk cloth named Dibaj which has been manufactured with different weights as "It has a beautiful coloring, its motif pattern is ordered, silk used in beautiful way and its structure is dense; its color is bright, its weight is heavy and there is no sign of post-smoothing burn on it." It is also stated that the best Dibaj is the one which its quality does not have the above mentioned defects. Perhaps this could be a general term for any type of silk which is woven with chevron pattern. (Baker, 2006)

3.2.2 Silk Weaving in Buyid Dynasty

Buyid period is privileged because of the advancement emerged in weaving techniques. (Pope, 2005). This matter caused emergence of a great progress from the amount of manufacturing, weaving methods and variety of motifs and designs view of point. Moreover to the needs of society, the interest of rulers of Buyid dynasty to textile was another reason for progress of this industry. As it is quoted that "Adud al-Dawla" known as Fanna Khusraw, built a city half a mile far from Shiraz city, and named that "Kard-I Fanna Khusraw" and gathered all of the weavers and spinners there. (Moghadas, 1982; and Rouhfar, 2001).

4. one of motifs in illuminated manuscript



Fig. 3. Map of Iran showing main centers of weaving (Pope, 2005)

Woven textiles during Buyid dynasty in fourth and fifth centuries of Islamic calendar are the continuity of weaving art from Sassanid period. Remained cloths of this period mostly have a written clear date on them and has such patterns which are not only the continuity of same Sassanid motifs, especially with having animals in their pattern, but some re-mastered designs have been added to them. Designed with a single or multiple images in a way that from their distances, another design can be resulted, is one of the oldest patterns utilized in weaving in Middle East which has been observed regularly in remained fabrics from Sassanid period. In silk cloths of Buyid period, motifs among patterns are varied and repeat regular patterns of Zarathustra period. (Pope: 2005)

In Buyid period, level of skill in weaving fabrics reached a perfection. Both the designer and weaver mastered their jobs and reached an agreement in their arts. Woven of this period shows till which level artists of this period have gotten imagination and thought power. Patterns of cloths are very diverse. Sometimes coarse and stiff calligraphy and sometimes fine and elegant lines, sometimes bright and spacious architecture motifs, sometimes allegorical motifs like peacocks facing each other or eagles with open wings which some of them while being elegance are intertwined and strong and some others are widespread and braiding, sometimes they have poetic and romantic theme which is decorated with joinery and warm and passionate beauty. All these patterns and motifs show the extent area of weaving art.

Pope (2005) have also stated that the weaving art is not only behold to artistic taste of the period but is also especially indebted to the masters and designers of other branches of art. Designers of these Deilami silks are considered as the best masters during continuous history of Iranian art, and the weavers who implemented these complicated and difficult patterns on cloths had to truly understand the case and be master at their job.

Cloths of Buyid period has been used by kings and rulers of dynasties which are considered as the greatest of all times during history of Iran such as Adud al-Dawla, Tughril, Alp Arsalan, Malik Shah I, Ahmad Sanjar the King. These great men were all believing and religious men and believed that Art is one of the attributes of the monarchy and should serve religion (Pope, 2005).

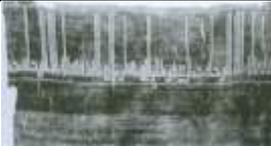
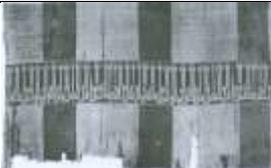
In Buyid period, silk was the greatest weaving material and sericulture centers were mainly located on northern states of Iran such as Azerbaijan, Tabarestan and Khorasan; but exquisite fabrics were produced in Taraz workshops. Khuzestan with its 80 workshops used to produce silk for selling in its own market such as Susa and Ahvaz around 300 Islamic calendars to use as various types of clothing, Chador and scarves. Kazerun in Fars province used to export silk products to neighboring states (Feryeh, 1995). Khuzestan retained its popularity and importance as a main location of producing silk fabrics. Shushtar, Susa and Jundishapur are the most important centers of this state that used to produce various types of silks in their workshops. In addition to these cities, in six smaller cities of this state too silk was woven. Shushtar city was the main center of weaving Taraz, which this type of silk due to the presence of inscription that indicates the location of textile is important. Another feature of Shushtar was in the preparation of the Kaaba curtain. (Pope, 2008)

In Khorasan state, in cities of Nishapur, Merv, Herat and three or four smaller cities around Herat various types of silk fabrics and other types of cloths which had golden fibers were woven. Eastern districts of Sogd, Khwarezm, Bukhara and Samarkand had special importance in weaving fabric particularly fabrics which were woven Imitating the Egyptian style and were attributed to the Egyptian cities like Dabiq. Also the most beautiful silk fabrics were woven in Tabriz. (Pope: 2008)

After a careful and detailed study, the researchers can organized and classified the fabrics of from early Islamic centuries to late Buyid Period. (see Table 3)

Table 3. Fabrics of early Islamic Centuries -Buyid Period

No	Characteristics of Fabric	Date	Location of Textile	Keeping Place	Usage	Technique	Image	Source
1	Double sided Silk, Navy Blue, beige	Early decades of Islam	Rey	National Museum of Iran	-	-		Rouhfar; 2001:17
2	Double sided Silk, brown and beige	4 th century of Islamic calendar	Rey	National Museum of Iran	Shroud	-		Rouhfar; 2001:20
3	Silk	4 th century of Islamic calendar	Rey	Cleveland Museum	-	-		Rouhfar; 2001: 21
4	Double sided Silk	4 th century of Islamic calendar	Rey	Columbia Fabric Museum	-	-		Rouhfar; 2001: 22
5	Double sided Silk	4 th century of Islamic calendar	Rey	Columbia Fabric Museum	-	-		Rouhfar;2001:23

6	Color: Violet; Has inscription	4 th century of Islamic calendar	Probably Khorasan	Louvre Museum	shroud	Cross-woven		Pope, 2009; Vol:11:981
7	Silk Carpet	4 th century of Islamic calendar	Probably Khorasan	Madam More	-			Pope, 2009; Vol:11:982
8	Type: Silk Color: Violet background	4 th century of Islamic calendar	-	Cooper Union	-	Cross-woven		Pope, 2009; Vol:11:983
9	Type: Silk Color: Navy Blue; Has inscription	5 th century of Islamic calendar		Washington D.C Textile Museum		Cross-woven		Pope, 2009; Vol:11:984
10	Type: Silk Has inscription	440-447; 5 th century of Islamic calendar		Chicago Museum of Art	-	Cross-woven		Pope, 2009; Vol:11:984
11	Type: Silk Color: Navy Blue	5 th century of Islamic calendar		Detroit Museum of Art	-	Cross-woven		Pope, 2009; Vol:11:984
12	Type: Silk Color: violet, red and gray	5 th century of Islamic calendar		Washington D.C Museum		Cross-woven		Pope, 2009; Vol:11:985

4. CONCLUSIONS

The results indicate Diba was a simple and depicting silk fabric which was woven in various colors and the type of raw or cooked silk fiber utilized in that caused a vast variety of weaving technique and name for this type fabrics.

From the evidences of The Seleucid and Parthian periods, it can also be found that weavers of Diba in relations with the Roman civilization and China, have upgraded the texture quality and the motifs of these exquisite hand-woven fabrics and in addition to silk, golden fibers was also used. Hence, brocade fabrics were woven during the Parthian period.

Based on archaeological findings of silk fabrics from Sassanid period, it can be concluded that all of the silk woven fabrics were depicted and colorful and were woven in warp faced compound technique and most likely, according to characteristics and documents mentioned for Diba, these fabrics are various types of Diba.

Through careful study of early Islamic period in Iran till the end of Buyid period, it can be noted that textile in Iran were the continuity of textures and designs' style of Sasanian period. Such factors such as attention and support of kings and rulers to textile manufacturing led to emerge a great advancement and caused to produce various type of silk fabrics such as Diba, Monir⁵, etc. skills of designers and weavers caused to weave silk fabrics with various motifs and more details such as plants, animals, and geometric motifs with inscription; and accordingly various methods of weaving e.g. cross-weaving, compound weaving, and double sided weaving have been introduced.

Trade and production of various silk fabrics in the geographical area and mentioned period had a great prosperity and brought so much wealth for the people of different regions of the Islamic Iran. Silk yarn and knitting workshops in archeological written sources of silk fabrics and Diba are noted as the most important cities of Susa, Shushtar, Bosney, Rey, Khorasan, etc. These centers in Sassanid period were centers of silk knitting. According to archaeological findings of early Islamic period and Buyid period, the results confirm that production of silk fabrics was there in mentioned places.

The results of this study are in line with the hypothesis and these results confirm the hypothesis of the study are as follows:

Fabric of Diba was one of the textiles in Iran and peak prosperity of this exquisite fabric was during Sassanid period and today is outdated. Diba fabric was woven for kings and rulers in different kinds in terms of color, and with the highest quality since Sassanid period and especially since Shapur II till the Islamic period, and clearly to the end of Buyid. Findings show that being painted and colorfulness of Diba can be confirmed with evidences remained silk fabrics from Sassanid and Buyid period. Motifs of woven fabrics in this time period are among the best samples in terms of beauty which are analyzed today to investigate Development of patterns and beliefs. In this regard, the archaeological investigations in the tables of present paper suggest that a variety of woven Diba were used compound weaving technique which is a result of interaction with China in Sassanid period and caused to improve knitting technique.

4.1 Recommendations for Future Research

Hand woven was an arena for maneuver of artist and the first characteristics which should be noticed in artistic value of textile are motifs, coloring pattern, and its visuals. It is suggested examining Fabric properties, critical components including fiber identification, texture techniques, dyes and motifs should be addressed in an accordance with this research and then attempt to revive the exquisite textures particularly Diba. To revive this exquisite woven, it is necessary to study silk fibers of archaeological findings and analyze them by various methods such as electron microscopy (SEM), spectroscopic reflectance FTIR, SDS-PAGE (Electrophoresis) and X-ray diffraction to identify the utilized dyes. Clearly, non-destructive detection methods will be more effective and efficient. The direction of future study can conducted via a historical comparative study based on motifs in literary and historical texts.

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