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YARN DYEING APPLICATIONS OF HANDWOVEN CARPETS IN KONYA CITY EREGLI DISTRICT

ABSTRACT

In this article, the hand-woven carpets from Konya city Ereğli district and applied dyeing process are introduced. The regional differences of the carpets woven for centuries in Anatolia, is both because of pattern and composition properties and because of the colors used in carpets. Therefore, the plants cultivated in the region where the carpet is woven, the mordant used and dyeing techniques are the defining factors of the regional properties. This research has importance in order to define the regions where the natural dyeing techniques are used -though decreasing day by day, scientifically and to keep their continuity and to add these techniques to the records.

Keywords: Hand-Woven Carpet, Crafts, Ereğli, Weaving, Natural Dyeing

KONYA İLİ EREĞLİ İLÇESİ EL DOKUMASI HALILARDA UYGULANAN İPLİK BOYAMA İŞLEMLERİ

ÖZET

Bu makalede; Konya ili Ereğli ilçesinde dokunan el dokuması halılar ve uygulanan boyama işlemleri tanıtılmıştır. Anadolu'da yüzyıllardır dokunan el halılarının bölgesel farklılıklar göstermesinde taşıdığı motif ve kompozisyon özellikleri etkili olduğu kadar, kullanılan renkler de söz sahibi durumundadır. Dolayısıyla halının dokunduğu bölgede yetişen bitki çeşitleri, kullanılan mordan ve boyama teknikleri bölgesel özellikleri belirleyen etmenlerdir. Günümüzde gittikçe azalma göstermesine rağmen, halen doğal boyama yöntemlerinin uygulandığı bölgelerin bilimsel çalışmalarla araştırılıp tespit edilmesi devamının sağlanabilmesi ve literature kazandırılması açısından büyük önem taşımaktadır.

Anahtar Kelimeler: El Dokuması Halı, El Sanatları, Ereğli, Dokuma, Doğal Boyama

1. INTRODUCTION (GIRIŞ)

Carpet weaving, reflecting a radical tradition in Anatolia, has reached today showing great development through angles like motifs, colors, quality, composition and etc. The developments in functional and aesthetic views are directed by people's changing needs and living circumstances. Formerly seen in the tent's floor and decoration as the requirements of their nomadic life, carpets, with the effect of settling down, has gained different features according to the living places they are used in. The colors that carpets have and the motifs they carry are the most important elements, affecting these features to become this outstanding.

2. RESEARCH SIGNIFICANCE (ÇALIŞMANIN ÖNEMİ)

The figure of hand – woven carpets are constituted with an elegant and vivid composition of stripe, direction, size, form, pattern, color and values that are proper to the arranging principles (Akar & Keskiner 1978: 22-45; Gungor 1984:23-48; Yazicioglu 1992:10). Anatolian women, without any mathematics or color learning, has been coloring their yarn used in carpets, in the frame of regional dying tradition, composing various figures and continues to introduce patterns of a unique beauty. This essential tradition is preserved in the Eregli district located in Konya region as it is in most of the Anatolian region.

3. SUBJECT (ANA KONU)

It is seen in the carpets woven in Eregli district, medallion centered arrangements formed by herbal and geometric lines are dominant (Figure 1). For prayer rugs used for worshiping, the backcloth is divided in two by an altar or to three by large chests with altar; some of them include poles or columns (Figure 2). Besides having regional features from the point of composition, color and figures used, Eregli carpets, displays a reciprocal influence with the Ladik, Gordes, Yahyali, Taspinar, Nigde and Aksaray regions' carpets.

Figure 1. Floor Carpet (Belkaya village) (Şekil 1. Taban halısı)

Figure 2. Prayer rug (Kutören village)(by Başaran 2004) (Şekil 2. Seccade örneği)

In spite of the fact that the number of the carpets named for the motif and composition qualities like; *direkli (column)*, *Yahyalı*, *Ladik*,

kandilli (kerosene lamb), *gijen*, *tam kandilli*, *yarım kandilli*, *muskalı*, *Mevlana kapısı (the door of Mevlana)*, *merdivenli (stairs)* and *beyaz gül* is decreased in the course of time, they are still being manufactured in the region.

4. FINDINGS AND DISCUSSIONS (BULGULAR VE TARTIŞMALAR)

People producing hand-woven carpets in Ereğli area; mostly prepare their own yarns to use. Wools are obtained from the sheep typed *morkaraman* and *akkaraman* (white-Karaman) by means of shearing in Autumn and at the end of Spring before the weather warms up.

Simple hand tools like distaff or electric spinning wheel are used for the process of thread spinning (Figure 3). Yarns being at the same thinness are paid attention in the roving process. Warp yarns are prepared in two sessions. Roved two threads are given into the spinning wheel at the same time and the roving course is changed to the opposite direction using rubber. Therefore the warp threads are double folded to make them S coursed. Yarns are prepared as ball of strings, but if a dying process would be held, they could be prepared as skeins as well.

Figure 3. Yarn spinning process in hand (Belkaya village 2004) (by Başaran 2004)
(Şekil 3. Elde iplik eğirme işlemi)

As for the abundance and diversity of plants growing at every part of our country, natural dying has been maintained as a tradition in especially dying yarns of carpets and rugs for ages. Various regional dying methods are developed by using similar or different plants that grow only in that neighborhood because of the climatic and regional changes. In Ereğli region and most places of Turkey, these methods, as the traditional art branches, have lived up to today by mother handing on daughter.

In Ereğli district the coloring of yarns to be used in carpet weaving mostly made by weavers themselves. As well as various plants, chemical ingredients are used in dying process. The powder paints on the market are used for the colors that seen in carpets like dark blue, blue, black, while the springs, flowers, leaves and fruits of plants growing nearby are used as natural dye. Not having any scientific education in this matter, weavers prepare their yarn in diverse colors in the aspect of years of study's experience.

The picking time of plants, the region where the plant grew, the rainfall measure, and the quality of soil are efficient on the amount of dyestuff and color quality. For this reason, the plant must be carefully picked from the most fertile field at separate times concerning flower, leaf, seed, bark and root's ripeness seasons. Dying can be carried out with green or dried plants related to their type and parts to be used. The dying plants, picked mostly in spring and summer months, are dried to be preserved in a non-humid area for later use. Some of the plants picked in summer months, can be processed in dying immediately, and this process is kept on for a few days to obtain various shades of a color. To get the wanted shades of the color, leaf, flower, spring or fruit parts of the plant are divided into little pieces or ones with the ligneous qualities are grinded into powder form later to be boiled and prepared as an extract. The dividing and grinding processes, as proved in many scientific researches, provides the dyestuff within to easily penetrate the extract. Afterwards, the extract is filtered to remove the sediments and the rest of the plant, avoiding them to stick on yarn as the dying process. The dye bath can be prepared in these steps, as plants may be processed with the yarn skein (Enez 1987:67; Öztürk (no date); Anonymous 1991:167; Kayabaşı et al. 1998; Arlı et al. 2003:81; Karadağ 2007:7-63).

The dyestuff, that some of the plants contain, has the characteristic to hold the fibers directly without using any mordant. Especially walnut and corn cockle root can be taken into process as this practice, while the other dying plants applied with various mordant materials, are made the dyestuff hold the fibers, strengthened in the quality and got different shades of color (Karadağ 2007:7-63; Kayabaşı 2000).

Because of the most plants' not being able to dye the fibers themselves, they require the mordant substance to set the chemical bond between yarn fibers and the dyestuff. Mordant is the supportive chemical substance used in the dying process, before or after to obtain different shades of color, strengthen against the external effects and ensuring the dye to hold on the fibers. Every one of the chemical substance has mordant features, may give several shades of color from the same plant (Enez 1987:67; Öztürk (no date); Anonymous 1991:167; Kayabaşı 2000; Karadağ 2007:7-63).

The alum, **(**$KAl(SO_4)_2.12H_2O$), consisting of colorless crystals similar to soda, for being acquired easily, is the most widely used yarn dying mordant in Anatolia (Anonymous 1991). Being one of the most known salt pairs, it is the compound that contains 1+ and 3+ value of metals, sulphate roots and crystals water. The most known and used is the aluminum. This alum may have potassium, sodium, ammonium, cesium, silver, rubidium and many organic amines inside (http://ansiklopedi.turkcebilgi.com/%C5%9Eap). In Ereğli's Acıgöl district, an alum mine is situated near Kesmez village, and it is claimed by the village people that, dying made with the mines alum, doesn't fade or wither. In this region, mordant methods of before the process and during the process are applied.

The alum, not containing any foreign substance, has the soda like, colorless crystal form. The measure of %3 yarn amount gives the ideal ratio in mordanting. It can cause the yarn to stiffen and a glutinous flow to take place on fibers, in the case of having too much to use or applying on saponated yarn (http://isdfenlisesi.k12.tr/projeler/proje_007.asp). On account of these ratios, alum is melted separately and then

added to mordant caldron. The yarn is also added to this mixture to be boiled with alum on low heat for an hour and it is kept in that water during one night. The following day, the dying extract has been prepared, is put in the same caldron and boiled on low heat till it becomes the wanted shade. If dying would be made a while later, skeins came out of the water, are dried carefully with no contact with water. It is observed that, animal urine is also used for dying in the region. In this matter Dirik (1938:67) states that, Konyas Ereğli Yörüks add camel urine in dye. And also, dying is made without mordant in the region, it is rare though. As for this situation yarn skeins are put into the dying caldrons wet to avoid a change of hue and to make dye easily inhaled.

Yarn dying is made by the experienced and generally middle-aged people in Ereğli. Young weavers, on the other hand, assist dyers until they get experienced in the important parts as dying and warp preparing.

The plant, which is used the most, is the *madder* (*Rubia tinctorum*) widely found in the region. Madder is the most important red color plant amply grown in Central Anatolia. Plants underground springs are grinded for use (Kayabaşı et al.1998). The extract, prepared from the obtained dye powder, is handled with formerly mordanted yarn in a several dying bath to get the various shades of red. In addition to, quite vivid and bright shades of red are obtained from wild plum plant, it is used together with the madder to get different shades.

Figure 4. Madder plant, spines (*Rubia tinctorum*) and wild plum (www.exoriente.de/cms/geschichte.html?&L=3; www.picasaweb.google.com)
(Şekil 4. Kök boya bitkisi, sürgünleri ve yabani erik),

Figure 5. Vine (*Vitis vinifera L.*) and yarrow (*Achillea wilhelmsii*) (by Recep Karadağ, 2008)
(Şekil 5. Asma (*Vitis vinifera L.*) ve civanperçemi (*Achillea sp.*)

Vine leaves (*Vitis vinifera L.*) and veronica is used for getting colors as shades of green. Veronica, being called as *akbaşlı, ak yavşan, marsama otu, baytaran* in different regions and as *yavşanotu* in Ereğli, includes quercetin and known as *civanperçemi* (*Achillea sp.*) in books and articles. Plant's grinded flowers are used for dying.

Figure 6. Onion husk (*Allium cepa L.*), camomile (*Anthemis sp.*) ve pomegranate (*Punica granatum L.*)
(www.doctorherbalist.com/index.php?module=plants)
(Şekil 6. Soğan kabuğu (*Allium cepa L.*), papatya (*Anthemis sp.*) ve nar (*Punica granatum L.*)

Besides, in Ereğli region, light shades of brown from the plant known as *süpürgelik otu* (heather); and shades of beige whose regional name is '*tetir*', khaki and dark yellow are subtracted from walnut leaves and it's shuck (*Juglans regia L.).* It is known that, shades of yellow from buckthorn (*Rhamnus petiolaris Boiss*) and spurge (*Euphorbia sp.*) plants; beige, brown, khaki, mustard and shades of green from valonia (*Quercus ithaburensis Decaisne*) and gall oaks (*Quercus infectoria Olivier*); shades of brown from the flower and leaves of the plant called '*Fadime ana*'; diverse shades of yellow from onion husk (*Allium cepa L.*), pomegranade (*Punica granatum L.*), straw stem and camomile (*Anthemis sp.*) are obtained. Quercetin dyestuff is extracted by onion husks' being waited in the water for a week, and pre-mordanted yarn are dyed, boiling in this water. Occasionally, walnut shucks are added to the onion husks to get a more greenish shade of yellow (Başaran 2004:52-53; Başaran and Kayabaşı 2008:241-259).

Figure 7. Valonia oak (*Quercus ithaburensis*), Pear royter spurge(*Euphorbia sp*)
(by Recep Karadağ 2008)
(Şekil 7. Palamut meşesi, sütleğen ve süpürge out)

Figure 8. Walunt (*Juglans regia*) and Anatolian Buckthorn (*rhamnus petiolaris*) (by Recep Karadağ 2008)
(Şekil 8. Ceviz (*Juglans regia L.)* ve Cehri (*Rhamnus petiolaris Boiss*)

'Tüylü boya', 'yerineği', 'ennik', 'egnik', 'havlıcan' in other regions, alkanet (*Alkanna tintoria Tausch*) plant, gives the shades of scarlet brown, is called '*ennik*' in Ereğli. Then again, it is determined that, the plant called terebinth (*sakız ağacı*) in the books and articles and turpentine tree *(Pistacia terebinthus L.*), '*çitlenbik*' in traditional expressions, is named as "*Melengiz yaprağı*" in the region. This plant's leaves are used in dye bath after being grinded, as a result of bath with alum, shades of yellow are obtained. Sometimes, yarn that decided to be used in their natural cream color, are boiled with wheat stems to get a brighter cream color. Brown yarn that acquired in light and dark shades from 'morkaraman' sheep, breed in the region, and is used in its own color without dying. Also, the grey colors seen in carpets are made by carding the black wool of 'morkaraman' sheep and cream colored fleece together. This application can be performed on the weft yarn too.

Figure 9. Turpentine (*Pistacia terebinthus*) and Alkanet (*Alkanna tinctoria*)(by Recep Karadağ 2008)
(Şekil 9. Menengiç ve havaciva bitkisi)

The maroon color, quietly used in weft and knot yarn generally, is attained by adding ready-made dye powder to walnut shuck. Ready-made (chemical) dye powders are used for black color, sometimes color darkening gall oaks or valonia is added to strengthen the color's fastness. It is known that, in the coloring performed with this dyes, containing tannin, the color becomes dark. Similarly, some sources indicates that, sumac, being rich in tannin, and sour pomegranate are mixed in the black chemical dye in various Anatolian regions, and the

reason is expressed that this application is done to prevent colors from fading and to ensure them to last more (Etikan 2002:54; Karadağ 2007).

In Ereğli region, at the end of the coloring processes, wood ashes are scattered on the dyed yarn and shaken off after keeping them for an hour. This treatment is carried to grow the brightness of the colors, to prevent them from fading and it is called "*avşarlama*" in the region.

Still weaving at the center of the town Ereğli, some of the individuals having troubles in dying and spinning yarn, provide this needs from their close people in villages. Besides, a dying workshop, in which the village's and neighborhood's yarn dying operations are made, is situated in Belkaya (formerly, Arısama). In this workshop, dying process is carried with chemical dyestuff and chemical mordants. Knotting threads prepared as skeins, are brought to the workshop and the color and the dying measure of skeins is stated by the weavers. There has been no difficulty, as the dying recipes of the certain colors used in region's carpets, are fixed and the owners of the workshop has years of experience on this business.

In the room at the entrance of the workshop, yarn skeins are hanged considering their owners and to be dyed colors and grouped by coding with little tags attached on them (Figure 12). In the inner room, a big dying caldron, made of shades, and under it, a mechanism to light fire is situated. Mordanting can be done before or while dying. The Prepared mixture according to the dying recipe and the yarn amount to dye is put in to the caldron, and then skeins of yarn are added by being pressed down with the help of long wooden sticks (Figure 9-10).

Figure 10. Dying caldron (Belkaya village) (by Başaran 2004)
(Şekil 10. Boyama kazanı)

Figure 1. Dying process (Belkaya village) (by Başaran 2004)
(Şekil 11. Boyama işlemi)

While this process, a metal caldron is used to prevent the fire from water's overflowing. Caldron's boiling degree is being arranged under control and boiling span is changeable considering the required shades of the color on yarns.

Figure 12. Dyed yarn skeins (Belkaya village) (by Başaran 2004)
(Şekil 12. Boyanmış iplik çileleri)

While this process, skeins are stirred on and off with long wooden sticks to prevent the change of hue and to make the dye absorbed fully in them. The skeins, whose dying process is completed, are rinsed and tagged to be hanged on the pillars in the entrance room to dry (Figure 12).

5. CONCLUSIONS (SONUÇLAR)

The regional differences of the carpets woven for centuries in Anatolia, is both because of pattern and composition properties and because of the colors used in carpets. Therefore, the plants cultivated in the region where the carpet is woven, the mordant used and dyeing techniques are the defining factors of the regional properties. As we all know, the natural dying methods, used for centuries, are substituted by chemical materials because of changing living conditions, developing technology and increasing population in 1900's, however in recent growing ecological living intentions, they are beginning to regain the place they deserved. Today's people, for the sake of keeping away from all of the carcinogenic substance containing products and their effects, in food to

clothing, cosmetics to decoration, prefer the products obtained by natural ways. Owing to the country's rich vegetation in this matter, natural dying has become indispensable in traditional weavings. Effective studies are practiced especially in universities and scientific projects are carried in most of the country's regions on this issue (DOBAG, natural dying projects supported by TÜBİTAK, Mut Natural Dying Project etc.). These kinds of studies are not only important in terms of traditional handcrafts, but also make existing plant potential usable.

In this article, dyeing process applied to the hand-woven carpets from Konya city Ereğli district is introduced. Preparing a background by putting forward regional researches is carrying a great deal of importance to increase the amount of this kind of projects. This research has importance to define the natural dyeing techniques used -though decreasing day by day, scientifically, to keep their continuity and to record these techniques.

NOT (NOTICE)

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