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NATURAL DYES OF AZERBAIJAN - A GIFT FROM NATURE TO MAN



AZERBAIJAN IS A COUNTRY OF RICH AND ANCIENT CULTURE. SINCE TIME IMMEMORIAL, IT HAS BEEN FAMOUS FOR THE DIVERSITY OF TYPES AND FORMS OF NATIONAL ART. THE ANCIENT GREEK HISTORIAN AND GEOGRAPHER STRABO WROTE THAT CAUCASIAN ALBANIA WAS POPULATED BY 26 TRIBES, WHICH IS CONFIRMED BY THE DIFFERENT TYPES OF BURIALS FOUND DURING ARCHAEOLOGICAL EXCAVATIONS. REMAINS OF FABRICS - WOOL, LINEN AND COTTON - HAVE BEEN FOUND IN CEMETERIES, AND THIS SHOWS THE DEVELOPMENT OF WEAVING IN ALMOST ALL THE TRIBES OF ALBANIA.

*Dyeing of fabrics. Drawing on
an ancient European engraving*

With the beginning of agriculture and animal husbandry, people gradually improved the production of fabric from wool and began to use plant fibers. Material was painted and decorated with natural dyes. To obtain them, Stone Age people used buds, stems, bark and leaves of plants (1). Ancient colored clothing was not just a cover, but also a symbol of protection from external threats. Even the amulet was considered to be «clothing» at one time, because it was a barrier to the outside world's aggression against the naked, vulnerable human body and protection from evil forces (2, p. 14).

Dyeing has been known to mankind since the dawn of time, according to archeologists – at least for 30,000 years. Our ancestors were very creative in finding means to diversify the floral palette of fabrics and yarn, in comparison with which the rainbow pales. **The art of dyeing was known in Azerbaijan at the dawn of civilization.**

During excavations in Kul-Tepe in Nakhchivan, stone mortars (4th-3rd centuries BC) with traces of red dye were found. In his «History», Herodotus wrote about the production of vegetable dyes among the peoples of the Caucasus: «In their forests, there are trees covered with leaves that are ground and mixed with water and paint and used to draw patterns on clothes: These patterns cannot be washed off and do not grow old with their fabric (especially wool), as if they had been woven from the very beginning.» The 7th century chronicler, Moses Kalankaytuk, notes in the «History of Aluania», which is in the northern part of Azerbaijan, that they produced silk fabric of various colors and shades

(3, p. 87)

The manuscript «Hudud al-Alam» dated to the 10th century says that the cities of Azerbaijan, including Mugan, were famous for their chuvals and carpets of all colors; the cities of Nakhchivan, Khoy and Salmas – for their zilis, rugs, belts and other weavings, Ardabil and Shirvan – for their colored silk and woolen fabrics (4, p. 39).

In the Albanian period, craftsmen knew the process of dyeing very well, and they, as scientists say, not only knew how to weave subtle and delicate fabrics, but also dyed them and drew various patterns. One of the most important and ancient branches of Azerbaijani art is embroidery. In the 19th century, embroidery was widespread and in demand in almost all the cities and regions of Azerbaijan. Azerbaijani embroidery is a type of applied art, with which the Azerbaijani woman distinguishes herself. It is known that the poetess of the early 19th century, Khurshud Banu Natavan, spent her leisure time on embroidery. A hookah case of striking beauty and colors, which she had embroidered in bead, has reached the present day.

The great 12th century Azerbaijani poet Nizami Ganjavi wrote: «Daxmada gecenin horuklerinden, yeddi reng parchalar toxuyuram men» («In the house I spin multicolored fabric from strands of the night»).

During archaeological excavations conducted by the Institute of Archaeology and Ethnography in 2010, **huge ceramic vessels and containers with remnants of dried natural dyes were found in Agsu District.** The finds were dated to the end of the 18th - early 19th centuries.

Until the middle of the 19th century, only natural dyes were



Sumakh - the unchangeable source of the purple color in Azerbaijan



Saffron flower



Vegetable “strings” of saffron are a source of resistant paint



Henna - still an indispensable cosmetic colorant



Dyeing madder - natural dye that was used until the end of the 19th century

used for dyeing yarn. They are called «paints donated by nature». The sources of dyes were plants, minerals, and even some members of the

Dyeing of carpet yarns

animal kingdom - insects. For many centuries Azerbaijani craftsmen used natural dyes – cochineal, sarikok, saffron, walnut, dogwood (potion), pomegranate, etc. Natural dyes, unlike chemical ones, do not destroy the structure of wool fibers and impart sheen and juicy colors to them (5, p. 36). Any color can be obtained from nature, and man living in harmony with nature finds a real pleasure in the abundance of colors. Confirmation of this can be found in any country house.

Producing natural dyes is a very complex and delicate process. Any details up to the maturity of the plants used, the temperature, the dose of the dye, the composition of water and the concentration of calcium salts are very important here. Despite the apparent primitiveness



Dyeing of fabrics. Drawing on an ancient Japanese engraving

and amateurish nature of the process, national dyeing masters - **boyagchi** - achieved amazing results,



Drying of dyed yarns



getting solid dyes that amazed one by the wealth, brightness, durability and variety of colors (6, p. 23). The oldest and the most stable dyes were of animal origin. The most common ones were purple, girmiz and cochineal. **Purple was considered the oldest one.** It was

obtained from molluscs (purple snails) - «girmizbojayi» mostly in Sheki and Shamakhi, providing different shades of red and purple colors. Purple dye is very stable and has always been highly valued. The researcher of Azerbaijani carpets L. Karimov writes: «It is known from

reliable sources that red insects called «girmiz» once appeared in the territory of Azerbaijan, and they fed on oak leaves, while carpet weavers began to use these insects to produce paints and used them to dye wool, and juvalakhachi (weavers) dyed other fabrics they had woven.» The author notes that the red dye was obtained from this worm or the dyeing roots of madder for centuries. The most rare and expensive color of the natural palette - purple - can be «cooked» only for one month during the whole year - namely, when the oak mealybug secreted special secretions.

There are mentions that the famous orator and statesman Cicero wore double-dyed purple clothes to commemorate the recognition of his distinguished services. And the Egyptian queen Cleopatra, known

Dyed yarns used in carpet-weaving



not only for her beauty and wealth, but also for some extravagant behavior, once ordered that the sails of her ships be painted purple (7, p. 114). Purple was used for dyeing ivory and parchment. Purple was also used to produce ink.

Knowledge of the technology that allows fabric to be dyed with molluscs has been preserved only by a few residents of coastal villages.

In this connection, it should be noted that the production of dyes of animal origin is linked with great difficulties and therefore the dyeing business started using vegetable dyes. The flora of Azerbaijan is very rich in various plants with dyeing properties (1).

In order to dye fabrics red or similar color, **madder roots, mahogany and brazilwood** were used from ancient times. The dye was prepared from the roots of an herbaceous perennial plant - madder. It is a close relative of coffee and cinchona trees.

The madder is a perennial shrub whose roots have coloring properties. Local dyers call the madder **boyag** (8, p. 66, 72-74). **In the 18th-19th centuries, dyeing in Azerbaijan became a separate independent professional craft**, where trade secrets that ensured the competitiveness of products always existed. Handicraft manufacture of dyes was based on manual labor. And most of the artisans followed the family tradition and inherited their father's profession. «There is nothing more beautiful than products of their craft.» Saint Maurice writes. D. M. Rossinskiy describes a dye house in Sheki in the following way: «The master himself, members of his family, two hired employees and a student boy are working in a private studio.» (9, p. 94).

Dye houses - boyagkhana - were available in many towns and villages of Azerbaijan beginning from the 18th century. Usually dyers opened their workshops in areas of intensive production of carpets, where they could sell their products in large amounts. Having decided to get sun coloring, our ancestors could use more than two dozen plants. And among the shrubs and subshrubs of the legume family, there is a species that is just called a dyeing species (10, p. 18).

Yellow and brown colors were obtained from the bark, leaves and berries of the black dogwood. In Lankaran, in order to get the yellow color, they used saffron - **zafaran, sarikok, safflower, sumakh, rhubarb, karri turmeric, fustic and onion peel**.

A broth of onion peels was used in Sheki for coloring the kalagai (6). In the Shamakhi province, they used yellowed mulberry leaves, wild apple bark and onion peel to produce yellow dye. To produce black dye, they used fresh nutshells, pomegranate peel, and the bark of walnut and oak trees (1, p. 32). As for henna, it's an old orange dye. In order to produce the green color, they use indigo - blue with different types of yellow dyes (11, p. 30). Sage and grape leaves were used to get yellow, light brown and greenish-gray colors. The eucalyptus was used to produce the red color, while quince, almond, blackberry, chestnut, pomegranate, chamomile, oak bark, onions and saffron provided many shades of yellow. Walnut and thyme were used to get various shades of brown.

One and the same natural colorant can give different shades depending on the yarn or fabric, the characteristics of the local water and additional reagents, including

fixing agents, used in the coloring process. Experimenting with plants is extremely interesting, especially if you know their little «tricks». For example, the yellow color – if you mix crushed pomegranate peel with buffalo milk and add a little lemon juice, the color will be juicy green. A little more lemon, and it will be brown. Violating the proportion of pomegranate peel in favor of milk, you will get the orange color.

While dyeing, of course, they used wool of natural colors, mostly gray, brown, beige, gold, yellow and others. To get white wool, it was specially bleached using the «**garga duzu**» stone which was extracted in Absheron (9, c. 96).

When we speak of colorants, our attention immediately associates them with fabrics, carpets and threads for embroidery. And for some reason, they ignore the no less important object of beauty that needs natural dyes day to day - the beauty of women. After all, «beauty requires sacrifice» - any woman will confirm it. From ancient times to the present day, women do not cease to strive for perfection.

In the 19th-20th centuries, girls and women from all regions of Azerbaijan used as cosmetics what nature gave them. Women dyed their hair, the length of which reaches the toe, with vegetable dyes - **henna, antimony, thyme**, etc. The basis of a skin cream was made from milk with the addition of olive or sesame oil infused in **pink petals**, while the rouge and lipstick were made exclusively from madder and antimony diluted with rose water - **gulab**.

I managed to visit a wedding in Balakan District. Here, everything is generous and abundant. The grass is as tall as man. A poplar tree is a



kind of «ignoramus» if it is not as tall as a skyscraper. Along the roads there are such walnut «fences» that they cover the sun. From Balakan to Ismaili, Zagatala, Gakh, Sheki, Oguz and Gabala, the highway enters such green tunnels from time to time. The local beauties paint their nails and hair not with henna, but with the juice of the walnut «shirt» that covers the shell. Yarns for carpets are dyed in this way too. The beauty of local women and their courage is legendary.

And one more example. On the high mountain pastures of Dashkasan, there is grass simply called «**chup**». It is undersized and bushy ... In spring when cattle-breeders put their flocks out to pasture in the mountains, the grass opens its first little white flowers. Girls and young wives of shepherds always welcome them ... In the morning, after milking the cows, women put the herd out

to pasture away from the settlement. They come back as if they had visited a beauty salon - in high spirits and with attractive moles on their cheeks. And in order to make a mole, it is enough to pull out a flower from the stalk and press its medulla. A bluish droplet immediately comes out - it is enough to draw a mole. The liquid dries instantly and becomes velvet black.

Azerbaijani women have made artificial moles on the face and slightly oblong slits around the eyes since time immemorial.

No wonder Rashid Behbudov sings in his song: «With a mole on the cheek
Eyebrow like a crescent»... And finally, high-quality raw materials and resistant dyes were the basis that determined the classical and artistic features of Azerbaijani carpets and fabrics, which earned them worldwide fame. 🌟

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