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#### PAPER-MAKING AND THE ART OF CALLIGRAPHY

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#### ABSTRACT

The paper-making art development was an important factor in the calligraphy art development, in the bookwriting art development, especially in the rise of the fine arts of miniature. According to historical sources, paper has been produced in our country since the early Middle Ages.

Keywords: book art, development, miniature, craft, calligraphy, history, paper.

Paper was invented by Chinese in 105 AD.

Until the paper reached European countries, people wrote text on smooth silk, ceramics, processed leather and papyrus, on the branches of palm trees. Only in 751 AD, during the Talas Valley battle, the Muslims were captured by the Chinese and learned how to make paper. Exactly this incident fed to the spread of the paper around the world.

Paper production began in 794 AD with the opening of the first paper mill by Fazl ibn Yahya, the minister of the Abbasid caliphate.

The paper mill establishment played a key role in Islam development as well as in world civilization. Baghdad was known around the world as the center of paper production. The paper recognition led to a sharp decline in books price, which in turn led to the spread of science.

As the bookmaking art became more popular, new professions and types of services also expanded

For example, the mustansikhs copied from the book, while the varrok and sakhkhofs traded and competed in the book preparation, if necessary.

Paper production has been practiced in Egypt since the 9th century. The first paper copy of the Qur'an was copied in the X century.

For the next 200 years, the paper spread to all Islamic countries. As a result, book production has become easier and book prices have fallen sharply. There was an opportunity to make thousands of book copies. In turn, the book art and calligraphy developed, and a variety of inks and paints began to appear on the shelves.

"Undoubtedly, the greatest favour that Muslims have gifted to Europe is paper," writes Jacques Riesler, a professor at the Islamic Institute in Paris, in his book "Arab Civilization".

Danish historian Johansen Pedersen acknowledged that "Muslims' expansion of the paper industry marked a turning point not only in the history of Islamic books, but in the history of books all over the world." 1

Bukhara is an ancient city that has been world-famous for centuries as the center of science, enlightenment, culture, art and religion of the East. It is a unique city in the east and it is northworthy to be called it as the source of Islamic culture. Bukhara monuments are built on the basis of perfect knowledge. The hidden thought of this is the immutable laws of the exact sciences, such as mathematics, chemistry, and khandasa. They are given a special decoration not only for intricacy, but to seal the unique specimens of the writing art, which is the wisdom of the sciences. If we look at the long history of Bukhara calligraphy art, we can see that its deep roots go back to pre-Islamic times. From the point of writing history view, the writing culture in the Central Asia regions, including Central Asia, began to take shape in the V-IV centuries BC.

Salim Hassani, "Muslim hcritage un our worlol" p.137

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There is a great deal of information in science about these other ancient writings, which were formed at the same time in our written culture or a little later chronologically history.

Archaeologists have determined that the ancient Sogdian script was formed in the centuries BC.

Our scholars also mention the Parthian and Bokhtar scripts, which were formed in our country on the basis of the Aramaic script.2

After the Arab conquest, cultural and scientific thought flourished in Central Asia, especially in Bukhara, Khorezm and Samarkand.

Along with the spread of Islam in our country, the Arabic script also became the only script. The Arabic script replaced the ancient Central Asian scripts (ancient Uyghur, Orkhon-Enasay, Sogdian, Khorezmian scripts). By the VIII century, it had become the only official record in science and public affairs for the Middle East peoples.

The XIV century history of our people in the Islamic period was written on the basis of this record. Our great calligraphers did not regard the words they wrote at the end of our history as merely a combination of letters, they did not forget the elegance and sophistication peculiar to the East while writing the letters, therefore, the more glorious our history is, the more elegant, beautiful, delicate, and musical the writing they have left.

The calligraphy subtlety art did not go unnoticed by ordinary people in ancient times. Consequently, rare miracles are seen in the folk examples applied art. We think of it as just patterns, whereas the patterns represent the words of love, fidelity, devotion. You also will read such words and see them as patterns on embroidered skullcap, belts, suzane, and prayer.

In the East the calligraphy art cannot be imagined without miniature or the calligraphy art in the East without miniature.

In both the miniature and calligraphy art, delicate dimensions are important. Another close aspect of the calligraphy art with the miniature art is that these inscriptions and patterns seem to move.

Calligraphy is one of the most important and rare professions of book art. In addition to the calligrapher (copier, writer) craftsmen such as paper cutters (paper maker), muzakhkhib (gold solvent), lavvokh (embellishing titles and tables), artist (working with paintings and ornaments), sakhkhof (cover maker) are also involved in the creation of the book. But the most important task in the work of the book was performed by the calligrapher. In Bukhara at the beginning of the XX century there was a talented and unique calligrapher with more than one hundred and fifty names. The names of Mir Ali, Khirovi, Fatkhobodi, Mirza Ismatullakh Munshi, Mukhammad Amin, Mir Masum Bukhari, Avaz Badali Bukhari, Haji Yodgor, Domlo Bobobek, Abdulmajid Makhdum Bukhari, Subkhankuli, Mukhammad Rizo Namadi, Mirza Mavlon Bukhari, Abdullakh Savdo and others are famous in the history of Bukhara calligraphy schools.

In the IX-XII centuries, with the exact sciences rise and its achievements in the architecture, handicraft patterns were widely used to express Islamic ideas and achieve greater perfection in architectural commonality.3

During the Islamic awakening (IX-XII centuries) there were specific changes and innovations in all creation forms, and in art the moral doctrine direction that the peace pursuit is a human trait began to dominate.

Encyclopedia of the Republic of Uzbekistan "National Encyclopedia of Uzbekistan". State Scientific Publishing House. T. 2006

<sup>.</sup> Mufradot. Tashkent 1900, 18 p. (Printed in the stonemasonry of V.I. Ilin)

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The paper-making art development was an important factor in the calligraphy art development, in the book-writing art development, especially in the rise of the fine miniature arts.

According to historical sources, paper has been produced in our country since the early Middle Ages. More precisely, paper production in Samarkand was established at the end of the VII century. Pieces of silk cloth, hemp fiber were used for the paper production. Samarkand was famous for its "Paper Marokand", which produced paper in the Near and Middle East in the VIII-IX centuries. By this time, Samarkand has become the only and largest center of paper production in the Middle East.

The introduction of Islam and a single religion establishment, the Holy Qur'an copies production played an important role in the paper production development in Samarkand. The demand for writing various documents, letters, and works by the first classical poets increased. Paper mills-artisanal creamery were built in Konigil castle on the Siyab River banks, a convenient place for paper making.

"The best paper in the world is produced in Samarkand," - wrote Zakhiriddin Mukhammad Babur.4

The silk emergence in Bukhara oasis is said to have brought the silkworm seeds to the advent of Islam and some scholars to go to Arabia and become Muslims and return through China. It is attributed to Az-Arzaniyon, a scholar from the Arzaniyon village in the present-day Jondor district (formerly Kharbun). "The scholar, who lived until the II half of the heathen period, traveled to Arabia from the end of the VI century to the VII century during Ali ibn Talib caliphate and adopted Islam from the descendants of Ali. On his way back he passed through China, where he met cocoon growers. After living with them for some time, he brought cocoon seeds inside his stick on his way home." 5

However, Abulkasim Firdavsi in his world-famous work "Shokhnoma" writes that silkworm rearing, from which the highest quality glossy yarn is obtained, weaving was developed in the time of Afrosiab.

In ancient times, silk production was widespread in Bukhara. The locals called the cocoon fiber Arbi reshin – abreshim, that is, the so-called glitter. Those who made silk products from it were engaged in weaving. Mulberry, which is a food for silkworms, is planted in Bukhara oasis, located in the depths, Balkhi mulberries are planted in large numbers to prevent the emergence of raw waters.

Balkhi mulberries were abundant around every yard - place, roadsides, gardens. Shade in the heat of summer, fruit ripening in spring is food and healing for man, food for leaf silkworm, bark of branches is raw material for making paper, frame, log, semicircular bars, column, door window, stand, bookmark, pencil case and used in the manufacture of boxes. A single mulberry tree emits more than 300 liters of raw water a year.

The following method was used to make paper from cocoons. The cheapest coat on top of the cocoon outlet - a mixture of lime, lime, double-eyed alkali, crushed in stone troughs. The crushed raw material is soaked for 10–15 days. The soaked minced dough is put on parchment paper and boiled. The stem and root of eremurus and the crumb of baked bricks were added to the boil. The prepared decoction is filtered through a special sieve the size of a sheet, laid out on a flat surface and dried. A liquid decoction was prepared from wheat and rice flour and rubbed on the surface of each sheet. Once the sheet is dried, it is treated with beef, ox horn, cornelian silk. Such paper was of good quality and easy to work with ink.

In the artisan method, in addition to silk, the papers are made of cotton seeds, flax stalks and hemp stalks. It should be noted that the importance of water (running water) in the preparation of paper is enormous.

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<sup>&</sup>lt;sup>4</sup> . Zakhiriddin Mukhammad Bobur. "Boburnoma" T. 1960. 233-p.

Akmal Mukhiddinov History and restoration of Bukhara paper. Bukhara 2017. 68-p

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Of course, fast-flowing rivers, canals, canals, built on canals, play an important role in the processing of paper raw materials, in the preparation of decoctions.

Types of paper made from silk, cotton, linen stalks, hemp stalks, etc. were the main writing tools for calligraphers. Writing and decorating them, the cover brought the book into the world. Book art encompasses many types of crafts. After paper, the most important raw materials are ink and paint.

The calligraphers needed ink like water and air. It was made by ink masters. Ink means black. Bukhara ink-makers prepared a decoction by adding the color of charcoal or buttock oil or marrow powder to the glue of mozu seeds, or the glue of elm limestone, rice, and wheat juice. When the seeds of elm were boiled and added to the ink, the ink became smooth. Such ink does not spread on paper and dries quickly. The record has not been spilled or moved for a long time.

The books are decorated with patterns and gold in different colors and shades. The cover of the book is made of leather, cardboard - pape - mosul. When the manuscript is finished, it is sealed in a special case. It was presented at a meeting of the ruler, ministers, scribes, and scholars, where the ruler or spiritual mentor cut the sheath and presented the book.

The paper publication made an unprecedented contribution to the development of science. He served to enlighten mankind.

The paper making art, which dates back thousands of years, is one of the beautiful products of human thinking, which is the basis for the calligraphy and miniature art development. If it were not for paper, historical written sources would not have been created and developed. This priceless wealth of the material and spiritual heritage of mankind plays an important role in its development.

From the first years of our independence, the enormous interest in our values has led to the revival of various professions.

Zakhiriddin Mukhammad Babur wrote in his "Boburnoma" that "the best paper in the world is made in Samarkand." Zarif Mukhtorov, a master craftsman who has revived this now-forgotten craft, set up a paper mill in the village of Konigil on the banks of Siyob River to make Samarkand paper.

Miniature artists Davron Toshev and Usta Akmal Mukhiddinov revived the paper making art in Bukhara at "Usta Davron" craft center

All conditions have been created for foreign tourists and specialists to visit the centers they have opened There is a demonstration of "master classes".

### REFERENCES

- Abulgafur Razzak Bukhari. Examples of Oriental Calligraphy and Miniature Art (VII-XXI centuries) album Board of Trustees of the Forum of Culture and Arts of Uzbekistan. Tashkent 2011
- Rempel L. I. Bukhara records. Far and near. T.1981 (254-255.p.) Mufradot T. 1900 18-p
- Zakhiriddin Mukhammad Bobur. "Boburnoma"T. 1960 233-p 3.
- Murodov A. "From the history of calligraphy in Central Asia"T. 1971. 22-p
- Zohidov "The Art of Architecture". T. 1986 5.
- Pugachenkova G.A.Miniature Painting of Central Asia. XIV-XV centuries. Literary heritage 1980 №4 T. 60-8
- 7. Ismoilova E. M. The art of decorating Central Asian manuscripts in the XVIII-XIX centuries T. 1962 30-p

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- Mamurova D.I.The minaret of the kalyan of Bukhara and its ornamental tiers of burnt bricks //
  LANGUAGE AND CULTURE. 2016. p. 222.
- Muzafarovna A. N., Jurayevich J. Q. The role of islam in folk decorative art of Bukhara //Asian Journal of Multidimensional Research (AJMR). -2020. -T. 9. № 5. C. 347-350.
- Islamovna M. D. The value of using the autocad program in the works of machine-building drawings for building fastening parts //Proceeding of The ICECRS. - 2019. - T. 3.
- 11. Mamatov D.K., Mamurova D.I. PEDAGOGICAL CONFLICTS: WAYS TO RESOLVE THEM /Novalnfo. Ru. − 2016. − T. 4. − №. 57. − p. 408-417.

