

THE IMPORTANCE OF THE SCIENCE OF COLOR SCIENCE FOR THE FINE ARTS STUDENTS OF HIGHER EDUCATION INSTITUTIONS, THE ROLE OF EASTERN AND WORLD SCIENCES IN THE PROCESSES OF THE ORIGIN AND DEVELOPMENT OF THE SCIENCE

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Abstract:

This article discusses the science of color science, which is the scientific basis of the science of painting, and extensively describes the scientific researches and research works of Eastern and world scholars during the origin and development processes of the science.

Keywords: Aristotle, Goethe, Leonardo Da Vinci, Kamoliddin Behzad, Abu Rayhan Beruni, color science, knowledge, color, artist, skill.

**Raising the cultural level of our youth,
enriching the spiritual world, art and beauty
it is necessary to strengthen the aspiration!**

Sh. Mirziyoyev

After the independence of Uzbekistan, a lot of attention was paid to education. It is worth noting the adoption of the "National Program of Personnel Training" and the introduction of continuous education by our first president I.A. Karimov. "Law on" and "National Personnel Training Program" to develop education, improve new teaching methods and efficiency, properly organize educational activities of the young generation and he set several goals and tasks for them, such as developing their creative activities. strengthens the sense of responsibility for the effective use of opportunities. The development of our country, developed countries of the world the culture, enlightenment, and art of our people have an incomparable role in joining it. Fine art also has its place in enriching the spirituality and culture of our people. Today, along with all fields, fine art Big changes are also taking place in the field of horse.

As a branch of fine arts, color science is a very important subject for future artists, and it accompanies students from the beginning of painting until they become accomplished artists. The science of color science teaches the changes related to color in the environment, explains the formation, characteristics and distribution of colors, and teaches several laws and rules, such as the use of colors. At the same time, it gives brush owners theoretical and practical skills related to working with color in creating various works, creative processes, the most basic and necessary skills related to the ability to see and perceive colors, the properties of colors. teaches knowledge. Color science is a complex art in one sense. Future painters must work tirelessly to master it. They must improve their color selection skills, develop the technique of working with

color, and thoroughly master the theoretical and practical skills of color science. For this, the artist needs to sweat a lot, patiently and diligently acquire these skills. While studying color science, in order to better understand it, it is appropriate to study the structure, origin and characteristics of each color in detail. There are 150 colors. There are more than one species. But their names have not been studied one by one. For this reason, the names of flowers and plants are used to name the colors.

The ability to see color is one of the most important tasks of every artist. An artist must be able to use color vision and the properties of color correctly, no matter what subject he creates. If an artist does not have knowledge about colors, his work will not improve. For this reason, the science of color science is taught as a science for young people studying in the field of visual arts. Concepts of colors have been formed in Uzbekistan since ancient times as a result of the processes related to creating patterns on walls. By the time of the Renaissance began to develop. Several scientists conducted research on color science and the origin of colors and contributed to the development of science



ARISTOTLE (322-384)

The famous Greek scientist Aristotle, who lived and created between the 4th century BC (384-322), was born in Stageria. Throughout his life, he researched in many fields such as science, art, politics, philosophy, logic and politics. He conducted scientific researches. Wrote many works and contributed to the development of the following sciences. At the same time, he determined the various manifestations of color and color and conducted experiments on their distribution in nature.



Johann Wolfgang Goethe (1749-1832)

I. V. Goethe, a German poet and art critic, is considered the founder of German literature of the new era. He did not limit himself to literature, but also conducted a number of researches on color science. "teaching" left information about the division of colors into warm and cold colors



GERMAN LUDWIG HELMHOLTZ (1821-1894)

G.L. Helmholtz, a German natural scientist who lived and worked in the 19th century, created an important innovation in color science.





LEONARDO DA VINCI (1452-1519)

Leonardo Da Vinci, a great artist who lived and created during the Italian Renaissance, was born on April 15, 1452 in Florence (now Italy). He created beautiful and unique works of art.

Leonardo writes: "A person who goes into practice without a theory is like a sailor who sets out without a compass and does not understand where he is going. Practice must always rely on a well-developed theory, and without theory, painting can never be successful." "doesn't."

The artist gave information about color, which is very important for artists, in his work "Treatise on Fine Arts". His information and experiences have helped artists to this day. He used religious content in his works. turned it into a mirror of various human emotions. His works created by skillful use of color are now in the attention and recognition of all art lovers.

Alisher Navoi, Abu Rayhan Beruni, Kamoliddin Behzad and Firdavsi, world-famous scientists, poets and painters from the East conducted research on color and its types and were able to distinguish more than 100 types of colors. Abu Rayhan Beruni gave more than 200 names of colors in his work "Kitab al-jawahir fi marifat al-jawahir". In addition, our scholars also noted in their works why each color was named. The names of these colors are as follows: asfar , purple, purple, akrabi, alas, honey, purple, purple, azraqvali, asfarvash, akhzarvash, ahmarvash, el, white, violet, beige, bahromi, birjina, gray, black, black magiz, sunafsha, aqiq, bayogul, pink, brown, gold blue, saffron, emerald, amber, gray, blue, lapis lazuli, lilac, mauve, blue, secret, mosh color, orange, pistachio, pistachio, pink, yellow, saffron, straw, green, turquoise, plane cut, red, chick, crimson, leaf color, frog night, bika, burul, gulnor, rose, danifa, color, brown, green, zaynovi, zarchava, orange, zok, doveneck, krang, blue, iron, lilovi, limurang, makailik, miinovi, novvotrang, nilobi, nimtair, nim pink, nargol, fire color, apple pulp, white apple juice, carrot color, straw, yellow cut, ink, savot, antimony color,

gold color, tupori, tariq, totoyi, soft color, shol, red bone, yellow pumpkin, saf toli, guli, shingob, shinny, ghirkok, golia, hal, hafrang, birjina, vardi, gulfom, domovy, ruby, jimry, olive, zulman, kabidi, kafirgul, kukhli, lalfom, tulip flower, flow, Makhsar, Miyno, Rind, Oyna Rang, Muzaffar, Mushkin, Naboti, Nafti, Nili, Nilgun, Nili, Orange blossom

sandali, sakhargul, silqiy, surmagun, tamriy, tibni, tovusi, usfuri, utruji, urjvani, urjvani, falfali, huni, shamgun, shirfom, kiirgun, haliki, safsarvish, usfur, zati, reddish, yellowish, bluish, light, dark, yellowish, yellowish, reddish, pale, Karacha, Akkil, Namgil, Damavi, Gulgun, Lolagun, Bahramoni and others.

"Color" is important in color science. Color represents the shapes of things in nature, the beauty of nature, and different kinds of emotions. There are many types of colors in the environment, and these colors make people happy. If some colors are white, some are red, some are yellow and some are blue. The reason why colors are visible to us is the shining sun. In the dark we do not see anything, we do not know the color. We can see colors only when the lights and different types of lighting fall on us. When the sun is shining, the colors appear bright and attractive. But when the sun sets, we see the colors appear dim. In our daily life and to put it more bluntly, life Every thing in our style has its own color, and the colors of these things are embedded in our memory. Cotton-white, sky-blue, horse grass-green, etc.

In conclusion, it should be said that since time immemorial, mankind has paid great attention to colors. Artists have created unique works using colors, which have surprised people and won applause. Such works feed the human psyche and provide spiritual nourishment through various experiences. and studying color structures, during this process we form our ability to see color by observing nature. they use the acquired skills and these skills create relief for artists in the creative process. Artists with strong color vision will successfully complete their creative work and attract the attention of the audience.

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