

The Technique of Mixing the Primary Colors of Oil Paints With Each Other, As Well As Using Certain Types of Solvents and Oils

Serova (Zhuravleva) Natalia
zhura051988@gmail.com

Introduction

An image created using oil paints can compare favorably with other means of image. This is because oil paints dissolve in oil and create a smooth, consistent image that can be more robust for safety and durability. One of the important characteristics of oil paint is the ability to mix base colors, which allows artists to create an infinite number of shades. And also when mixing paints with certain substances, you can get additional different color shades and get a more effective and convenient paint texture for use on various surfaces.

Oil paint potions

Oil paints usually contain three primary colors: yellow, red and blue. They are called primary colors. Mixing these colors in certain proportions can result in a large number of secondary colors.

Making orange

Orange can be obtained by mixing yellow and red in different proportions. If the yellow is less, the orange will be warmer and more yellow and vice versa. Orange colors in oil paint can produce warmer tones and can also create layered effects, which is important for an artist to create their own art.

Making green

Green can be created by mixing yellow and blue. As in the previous case, the focus or shade of green depends on the ratio between yellow and blue. With different color ratios, green may appear more blue or more yellow.

Making Purple

Creating purple is possible by mixing red and blue. As in previous cases, the choice of proportions of red and blue depends on the expected color gamut. If you want a warmer and livelier light, it is recommended to add some yellow to the color palette.

Mixing paints with certain substances:

Solvent - a substance capable of dissolving other solid, liquid or gaseous substances without changing them chemically. Drying paint

room temperature, contains approximately 45% light-boiling, 45% medium-boiling and 10% high-boiling solvents. Low-boiling solvents provide quick drying of the paint, and high-boiling

solvents provide a smooth layer surface. If the coating dries at an elevated temperature, then the paint, on the contrary, does not contain low-boiling solvents, because when heated, they will swell the surface of the layer. The binder also plays an important role in formulating the composition of solvents. Also, when creating a composition, the viscosity of the solvent, its effect on the mechanical properties of the paintwork and other parameters, including the features of use, are taken into account.

. Flax oil - Refers to quick-drying oils, as it easily polymerizes in the presence of atmospheric oxygen ("dries up") with the formation of a strong transparent film. This ability is due to the high content of unsaturated fatty acids (in%): 44-61% alpha-linolenic (Omega-3), 15-30% linoleic (Omega-6), 13-29% oleic (Omega-9). The content of saturated acids is 9-11%. Linseed oil is of great technical importance: quick-drying varnishes and drying oils are made from it. It is widely used for the production of natural linoleum and oil paints used in construction and painting. As the simplest natural drying oil, heat-treated linseed oil is used, since raw linseed oil forms a polymer film too slowly. Therefore, when processing wood with linseed oil, desiccants are added to it to speed up drying. Heat-treated oil dries out faster due to the higher number of double bonds formed during the heat treatment of the oil. Crude oil is not very popular for wood finishing, mainly double-boiled oil or standing in the open air (for several weeks) is used for this.

Turpentine - Turpentine (turpentine oil, turpentine) is a liquid mixture of terpenes and terpenoids obtained from the resins of coniferous trees (resin). At their core, these are different essential oils obtained by extraction or distillation from various parts of coniferous trees of the Pine family. The name "turpentine" currently implies a large-tonnage technical product, from relatively heterogeneous raw materials; and "turpentine oil" is a more high-tech product, made from selected raw materials (for example, essential oil from mountain pine needles, essential oil from common juniper wood, etc.

. Kerosene - the origin of the name, according to the Great Soviet Encyclopedia: "Kerosene (English kerosene, from the Greek *kerós* - wax)". In the 19th century, the name "photogen" was often used. Kerosene (English kerosene, French kerosine from other Greek *κηρός* - "wax") is a combustible mixture of liquid hydrocarbons (from C8 to C15) with a boiling point of +150 to +250 ° C, transparent, colorless (or slightly yellowish), slightly oily to the touch, obtained by direct distillation or rectification of oil.

When mixing yellow oil paint with various solvents and oils, the following shades can be obtained:

- with white alcohol solvent - light yellow;
- 1. - with flax oil - bright yellow;
- 2. - with turpentine - lemon yellow;
- 3. - with kerosene - golden.

When mixing red oil paint with various solvents and oils, the following shades can be obtained:

- with white alcohol solvent - light pink;
- with flax oil - rich red;
- with turpentine - bright red;
- with kerosene - dark red.

When mixing blue oil paint with various solvents and oils, the following shades can be obtained:

- with white alcohol solvent - light blue;
- with flax oil - sky blue;

- with turpentine - bright blue;
- with kerosene - dark blue.

Conclusion:

Mixing yellow and red oil paints produces orange, mixing yellow and blue oil paints produces green, and mixing red and blue oil paints produces purple.

When mixing oil paints, you can get new colors that were not in the original set. This is due to the mixing of primary colors in the correct proportion.

Further:

- Yellow oil paint when mixed with various types of solvents and oils gives shades from light yellow to golden.
- Red oil paint when mixed with various types of solvents and oils gives shades from light pink to dark red.
- Blue oil paint when mixed with various types of solvents and oils gives shades from light blue to dark blue.

Creating more complex colors

Due to the ease of creating simple colors such as red, yellow, and blue, many artists choose to add secondary colors based on the three primary colors. This can create deeper nuances in creating hues and tones. It is also possible to add more exotic colors such as olive and peach, which can become unusual and interesting.

Conclusion

The technique of mixing the primary colors of oil paints can be very effective and interesting for artists. Much of the work of art can be enhanced through the use of the right color combinations, which together can create a new reality. As a result, we can conclude that in the process of creating an oil painting, it is necessary to be able to mix the primary colors correctly to achieve the desired shade. There are various mixing techniques, each with its own advantages and disadvantages. It is important to consider that oil paints are not only a material for work, but also a real art that requires a creative approach and the ability to use a brush, a palette knife. Experience and practice will help the artist become a real master in creating beautiful and expressive works of art. As a result, mixing primary colors of oil paints is a process that involves a lot of factors and depends on many factors, but the right approach to this process guarantees a successful result.

Bibliography

1. Korsunsky L. Sustainability of modern artistic oil paints // *Artist*. 1962, No. 10. S.56-58.
2. Korsunsky L. Thinners for artistic oil paints // *Artist*. 1963, No. 12. S.22-24.
3. Orlova O. V., Fomicheva T. N. Technology of varnishes and paints: Textbook for technical schools. - M.: Chemistry, 1990. - T. 3. - 384 p. — ISBN 5-7245-0515-0.
4. Luzhetskaya AN Technique of oil painting by Russian masters from the 18th to the beginning of the 20th century. - M.: Academy of Arts of the USSR, 1965. - 290 p.
5. Chieffo, Clifford T. The contemporary oil painter's handbook: a complete guide to oil painting: materials, tools, techniques, and auxiliary services, for the beginning and professional artist, Englewood Cliffs[en], N.J.: Prentice Hall, 1976, 130 p.: ill. ISBN 0131701673
6. Borchert, Till-Holger[de]. Jan Van Eyck: Renaissance Realist (Basic Art), L.: Taschen, 2008 (2nd edition 2020), 96 p.: ill. ISBN 3-8228-5687-8.

7. Turpentine // Commodity Dictionary / I. A. Pugachev (editor-in-chief). - M.: State publishing house of trade literature, 1960. - T. VIII. - Stb. 186-188.
8. Turpentine, substance // Encyclopedic Dictionary of Brockhaus and Efron: in 86 volumes (82 volumes and 4 additional). - St. Petersburg, 1890-1907.
9. Treger Yu. A. Solvents // Chemical Encyclopedia: in 5 volumes / Ch. ed. N. S. Zefirov. - M.: Great Russian Encyclopedia, 1995. - T. 4: Polymer - Trypsin. — S. 183–184. — 639 p. - 40,000 copies. — ISBN 5-85270-039-8.
10. Stoye D. Solvents // Ullmann's Encyclopedia of Industrial Chemistry. - Wiley, 2000. - doi:10.1002/14356007.a24_437.
11. Linseed oil // Commodity Dictionary / I. A. Pugachev (editor-in-chief). - M.: State publishing house of trade literature, 1958. - T. V. - Stb. 153-154. — 588 p.
12. Chemical Encyclopedia / Ed.: Knunyants I.L. and others. - M.: Soviet Encyclopedia, 1990. - T. 2 (Daf-Med). — 671 p. — ISBN 5-82270-035-5.
13. Flaxseed, its composition and properties, V. A. Zubtsov et al., 2002, UDC 633.521+612.392/.398
14. Mendeleev D. I., Sokolov A. M. Kerosene // Encyclopedic Dictionary of Brockhaus and Efron: in 86 volumes (82 volumes and 4 additional). - St. Petersburg, 1890-1907.