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ASPECTS OF COLOR PERCEPTION AND ARTISTIC CLOTHING DESIGN

In this article, well-known and new color theories are considered, and the main aspects of its study are analyzed, which are based on the factors that influence the peculiarities of human color perception. Among them, the most important ones related to the content of the artistic image of the costume stand out. Based on the theoretical analysis of literary sources, the properties of color, which historically interested representatives of various professions: philosophers, physicists, doctors, and artists, were considered.

Why were colors given a certain symbolic meaning, and how does the change of colors in art and fashion contribute to the self-expression of humanity? The article describes the informative qualities of color in clothes and analyzes the issue of color preferences as a key to self-expression and a means of non-verbal communication. Attention is paid to the peculiarities of color perception, its psychological impact, meaning, and significance in modern costume. Color is considered an element of the iconic costume system, which is the most mobile, because the change of fashionable colors and their combinations occur constantly, depending on the trends of changing seasons.

The main goal of the article is to identify the factors influencing the perception of colors, to study the meaning of the color component in clothes, and to form a positive individual and production environment by using color in a suit. Color is considered one of the most iconic characteristics of a suit, which takes a direct part in the formation of the aesthetic value of clothing. The article emphasizes the importance of the color environment for the harmonious development of a person and finds out how color has an emotional and psychological effect on the viewer. Questions are being raised as to why people have different color preferences and differences in color tastes. The authors focus attention on the correspondence of certain colors to certain mental reactions, and the results of studies of the influence of color on a person are presented. and methods of creating the desired image are highlighted.

Key words: color perception, color solution, influence of color, color preferences, color in suit, color environment.

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АСПЕКТИ СПРИЙНЯТТЯ КОЛЬОРУ І ХУДОЖНЕ ПРОЕКТУВАННЯ ОДЯГУ

У даній статті, розглядаються відомі і нові теорії кольору, аналізуються основні аспекти його вивчення, на яких грунтуються фактори, що впливають на особливості сприйняття кольорів людиною. Серед них виділяються найбільш важливі, пов'язані із змістом художнього образу костюму. На основі теоретичного аналізу літературних джерел, розглянуто властивості кольору які історично цікавили представників різних професій: філософів, фізиків, медиків, художників. Чому кольори наділяли певним символічним сенсом, та якім чином зміна кольорів в мистецтві та моді сприяє самовираженню людства?

У статті надається характеристика інформаційним якостям кольору в одязі, аналізуються питання колірних переваг як ключа до самовираження і засобу невербальної комунікації. Увага приділена особливостям сприйняття кольору, його психологічному впливу, сенсу і значенню в сучасному костюмі. Колір розглядається як елемент знакової системи костюму, якій є найбільш рухливим, бо зміна модних кольорів і їх поєднань відбувається постійно, в залежності від тенденцій зміни сезонів.

Основною метою статті є виявлення факторів впливу на сприйняття кольорів, вивчення значення колірної складової в одязі, формування позитивного індивідуального та виробничого середовища шляхом застосування кольору в костюмі. Колір розглядається як одна з найбільш знакових характеристик костюму, яка приймає безпосередню участь в формуванні естетичної цінності одягу. У статті підкреслюється значення колірного оточення для гармонійного розвитку людини та з'ясовується, як за допомогою кольору здійснюється емоційно-психологічний вплив на глядача. Порушуються питання, чому люди мають різні кольорові переваги та відмінності в кольорових смаках. Авторами акцентується увага на відповідності певним кольорам певних психічних реакцій, наводяться результати досліджень колірного впливу на людину. та висвітлюються прийоми створення бажаного іміджу.

Ключові слова: сприйняття кольору, колористичне рішення, вплив кольору, колірні переваги, колір в костюмі, колірне оточення.

Formulation of the problem. Color is one of the most iconic characteristics of a suit. The color determines the image of the suit and forms the aesthetic value of the clothes. With the help of color, an emotional and figurative influence on the viewer is carried out. The power of color largely lies in its ability to "bypass" the protective mechanisms of consciousness and act on a subconscious level. Considering this, a modern person should know and understand how color affects his body and psyche in order to better navigate the world around him. Understanding the meaning of color preferences is the key to self-discovery and self-expression, the language of non-verbal communication.

As an element of the symbolic system of the costume, color is the most mobile, because the change of fashionable colors and their combinations occurs constantly, depending on the trends of the season. A huge number of color combinations and, characteristics of different styles and fashion trends, visually and in verbal description, do not allow one to understand their meaning, therefore there is a need to study the meaning and psychological impact of the color component during the training of a clothing designer.

Research analysis. Human life has always been connected with color perception. Colored environments are a natural phenomenon, an objective reality. Admiring the rainbow — a giant multi-colored arch, man tried to understand its nature, recreate the colors to decorate clothes and household items, use color combinations in drawings. In the course of development, mankind accumulated knowledge and discovered new patterns in matters of color. It was noted that color is able not only to attract attention but also to repulse it, to influence well-being and work capacity, psyche, and consciousness in opposite meanings. Color can be both used to treat and harm health.

Historically, colors have been given a certain symbolic meaning. The importance of the color environment for the harmonious development of a person is emphasized in many modern publications. Several theories of color are known, among them the theory of harmonious color combinations. In the book "100 More Things Every Designer Needs to Know About People" by the American author Susan Weinshek, the results of studies of the color effect on people and the related reaction in different population groups are given (Weinschenk, 2013: 14). Publicist and market researcher Vance Packard in the book "The Hidden Persuaders" analyzes consumer requirements for color design of clothing.

The topic of color decision in costume design is considered in the article by O.M. Lagoda "Color in fashion design". On the basis of known and new theories of color, important aspects of its study are analyzed for the training of clothing designers. Attention is paid to the peculiarities of color perception, its meaning, and significance in modern fashion (Lagoda, 2007: 67). Thus, consideration and study of the influence of color on the conscious and unconscious levels of the human psyche is necessary for the formation of training programs for clothing designers.

The problem of color perception and its influence has historically interested representatives of various professions: philosophers, physicists, doctors, and artists. The great German Poet J. Goethe considered his greatest achievement not the world-famous "Faust", but his work on color. Disagreeing with the existing theory of I. Newton about light and color, J. Goethe proposed his own, based on the "sensory and moral influence of colors". The research raises for the first time the question of the correspondence of certain colors to certain mental reactions - "certain colors cause special mental states of a person" (Goethe, 2019: 243). The author associates color preferences in clothing with the character of the nation as a whole and of an individual in particular. Goethe divides colors into "positive", "negative" and "neutral", drawing a parallel between color harmony and the harmony of the human psyche. These provisions of Goethe's color theory predicted the results of psychophysiologist's experiments, which prove the connection between color perception and the activity of the human autonomic nervous system (Lysytsya, 2012: 19).

The colorful environment has always been of great importance for the harmonious development of a person's personality and society as a whole, which is emphasized in many modern publications. In the book "100 More Things Every Designer Needs to Know About People" by the American author S. Weinshenk, the results of the color influence on a person and the associated reaction in different population groups, depending on professional affiliation, are given. The issues of color accent and color environment are raised, and serious differences in the symbolic meaning of the color component are traced, depending on the part of the world where the research is conducted. The author warns that the same color can have different meanings, therefore, in order not to get into trouble, it is better to study these nuances before offering your design to people of other cultures (Weinschenk, 2013: 18).

In the research of a modern scientist I.I. Shevchenko, integral characteristics of human activity are indicated in the context of color constants of culture, and color is characterized as an "interpreter" of personality. The author appeals to the fundamental research of psychology professor

M. Lusher, who proved that the perception of color was formed over a long historical period in the process of life. Lusher's discoveries also include the theory that the attitude to certain colors is determined by the nature of life activities of many generations of ancestors who were in one or another emotional state. In turn, I.I. Shevchenko, based on the results of his research, believes that the attitude to color is always determined only by an emotional reaction. The author claims that the reaction to certain colors arises in a person in connection with his personal experiences, and forms emotions, which allows the concept of "color of human" (Shevchenko, 2000: 9).

In clothing design, color carries a special meaning. For a fashion designer, the understanding of the concept of the color of a suit – the effect on a person and his environment is of great importance, since it is directly related to the content of the artistic image of clothes, capable of influencing the mental state of the individual and the mood in society as a whole.

The purpose of this research is to identify the factors influencing the perception of colors, to study the meaning of the color component in clothes, and to create a positive individual and production environment by using color in a suit.

Presenting main material. Many people still consider most of the available information about color as unscientific. This is because the process of color perception is largely subjective and ambiguous. Physiologists suggest that color associations may have been formed in the early stages of human history, when man associated blue with nighttime and, accordingly, with passivity, and bright yellow with the sun and activity.

Philosophers claim that in order to understand the meaning of color, a person needs to understand himself. In order to understand the nature of color perception, several academic studies on color were analyzed. Psychologist-marketer N. Kolenda in his studies on the psychology of color came to the conclusion that the favorite color of most people around the world is blue. But why is this so? Why do people like different shades of tones, for example, soft blue or dark blue? If we all have more or less the same biological nature, shouldn't we have the same color preferences? Where do the differences in our tastes come from? The theory of ecological valence can bring relative clarity to this issue. According to this theory, the perception of a certain color develops on the basis of the emotional experience acquired over time. Color sensations can evoke memories and associated images and mental states (Kolenda, 2013: 109).

All color associations will be divided into physical and emotional. Everything in the universe is in eternal motion. Each thing in it constantly vibrates, generating its own unique frequency. A person has sensory abilities and can pick up vibrations. Each color of the spectrum has its own range of vibration, from the lowest (violet) to the highest (red). To these properties, we owe the ability to distinguish colors on a physical level, and our eye is able to distinguish 1.5 million colors and shades (Pryshchenko, 2018: 56).

The color environment directly affects the emotional state and behavior of a person. In this regard, the theory of chromaticism is of interest, which claims that the change of colors in art and fashion contributes to the self-expression of humanity. The question of the compatibility of a certain color and a person is practically not raised in any of the scientific studies, to a certain extent it is tracked in fashion, design, and advertising, areas where a person's choice of color is obvious. (Pazynich, 2011: 175).

Color has both biological and informative qualities. It awakens not only the energy of a person's physical field but also the psychological field. So, for example, the blue color inspires trust and creates the impression of seriousness, thoughtfulness, and reliability. This is the color of authority, not by chance, the business dress code for men for official business events prescribes wearing a dark blue suit. The blue color represents conservatism and leads to calm communication. The designer can confidently offer blue clothes to a person who wants to overcome anxiety and excitement. This color is attractive to people with a phlegmatic temperament.

The combination of blue and white is considered ideal for careerists, this combination develops flexibility and the ability to adapt. Даний колір необхідний, якщо потрібно відновити рівновагу в житті. This color is necessary if you need to restore balance in life. This is the most popular corporate color. The color of wisdom, which causes processes in the body, promoting relaxation. Blue clothes symbolize trust and loyalty.

Green color in clothes is very ambiguous, this is due to the fact that it refers to neutral, from the point of view of warm-cold colors, and can have many different shades. In general, it is characterized as the most comfortable color for visual perception. It relieves fatigue and increases tone. An ideal color for gathering strength. This is the color of stability and well-being; it is often chosen by bankers. A dark green suit for men is a sign of conservative views, but at the same time, a small accent of this color in a tie creates the impression of a zealous person. Light green, on the other hand, personifies youth, lightness and frivolity, growth and development. Psychologists claim that the green color helps suppress such feelings as jealousy, envy, and greed.

Red is dynamics and passion. A woman in a red dress is always noticeable. The designer should choose the red color if he wants his suit to be the center of attention. But at the same time, if the clothes are intended for an event where you need to establish contact and place your interlocutors, it is better to choose softer shades of red, because deep red can not only attract attention, but also psychologically oppress. Red color is loved by choleric people. At work, an excess of red can lead to nervousness. A small element of red in clothes will help emphasize courage and energy. It should be added to the wardrobe of a person who lacks enthusiasm and interest in life.

Orange, like yellow, is the color of joy and optimism. Scientists say that long-term contemplation of the color orange compensates for the daily dose of vitamin C. The orange color creates a feeling of well-being and positivity, it adds energy and lifts the mood. This color is not recommended to be used in a business environment, if it is not related to creativity and creativity. t symbolizes creativity, drive, uniqueness, and activity. Stimulates appetite. Orange rooms are arranged for the conversation. This color is clearly visible because it has a long-wave organization. This color is attractive to sanguine people, but the designer must remember that it is not for everyone, because it can cause reflexes of violet shades on very fair skin.

Brown color is the only chromatic color that is not in the color wheel. Associatively, it is warm and soft, causes attachment to oneself. This color is well suited for a business meeting or an interview. This color helps in trade and financial affairs. Brown gives wisdom and the ability to maintain equal relationships. Clothes of brown shades will suit solid, practical people. However, it is better for the designer to use it as a base color in combination with other related colors, for example, cream, beige, chocolate, the main thing is that all the shades and nuances of the color are "in harmony".

Gray, white, and black colors are achromatic, their combination in a suit is classical. The neutral gray color does not evoke bright emotions, so it is suitable for a business environment. This is the color of balance. Gray symbolizes calmness, assuredness, security, and maturity. But, at the same time, the frequent wearing of gray clothes may not have the best effect on the image, there is a risk of seeming a faceless, withdrawn, and uninitiated person. This color is indispensable in those situations when you need to take the position of an observer, staying on the sidelines. The gray color is especially pleasant for melancholic people.

White color is a symbol of purity and lightness. It psychologically "extinguishes" irritation. White clothes are solemn and elegant and always attract special attention. All over the world, the white flag is

a symbol of reconciliation. A very bright white color can cause a feeling of anxiety and discomfort in some people. At the same time, this color promotes clarity and freshness of thought.

The black color is elegant, but it does not catch the eye and does not stand out from the crowd. Positive associations: refinement, sophistication, dignity, and mystery. In China, oddly enough, it is a color for young children, in Asia it symbolizes career and knowledge, but in Japan, it is a rebellious color. The black color strengthens the will and helps to concentrate, it builds distance, helps to detach. In the everyday version, black clothes often require chromatic support in accessories. The designer should offer black ensembles to people who communicate a lot, as the achromatic color does not make the interlocutor tired. Color therapy refers to black as a color that stimulates self-confidence. Achromatic combination - white, gray, black - always looks strict and concise. Black and white is a classic that does not need additions. White with gray, gray with gray, gray with black – an ideal background for bright color accents. All colors of the spectrum harmonize with achromatic colors.

Can it be said that during life a person gravitates towards one color or a certain color combination? Research has shown that this is not the case. Color preferences of many people change depending on age, gender, circumstances, and mood. In the life of the same person, several rather long periods can change: the "red period", is when a person is young, in love, seeks to make a career, and is confident in himself. Then it can be replaced by a "blue", "blue" or "green period"blue", when a person has reached a certain social level, has a family, and is settled in everyday life. The onset of "brown" and "gray" periods is possible as a result of negative life circumstances and depressive moods. When a difficult time passes, the preference is again given to light and bright or calm deep tones (Kapran, 2020: 64).

Another impressive aspect that affects the choice of color preference is its identification with the "color of the soul". Researchers claim that the color of clothes can contrast with the "color of the soul", suppress the latter or emphasize it. Both options alternate periodically. "At first, a person combines the color of clothes and the "color of the soul" in his preferences. When color fatigue sets in from such monotony, the color is changed to a contrasting one, to pass through neutral gray to a new stage of one's life, to a new "color of the soul", and then to clothes".

In the theory of chromaticism, the resonance of the unconscious structure of the personality and color harmony is connected with the concept of intelligence. According to the color that a person prefers, it is possible to determine his emotional state at the moment, and if these preferences are quite constant, then it is possible to determine the character of a person and the level of his intelligence. The higher the intelligence, the more complex, sophisticated shade a person will prefer (Lusher, 2022).

An important point in reading the color code of clothes is understanding the concept of image. An image is a purposefully formed image designed to have an emotional and psychological impact. An image is a business card created for others, the impression that a person consciously wants to create in others. The desire to wear things of certain colors can be dictated not only by color preference but also by fashion recommendations, to look modern and stylish. Psychologists claim that by following fashion trends, you can add variety to your life, arouse interest in those around you, and accelerate the onset of positive changes. As a rule, designers offer several directions for the development of fashion trends. The choice of a fashionable color component in clothes must be conscious, and correspond to a person's notions of the nobility of style so that the new image does not turn into a mask that hides the true face and forces a person to "play the wrong role".

Conclusions. Color is an informative variety of energy that affects a person in a certain way, practically regardless of his awareness. In clothing design, color has special characteristics different from other areas of human activity. The color determines the image of the suit and sets it in a certain way, forming the aesthetic value of the clothes. The choice of clothing color characterizes the personality, reveals its deep needs, and promotes self-discovery and self-expression. Stylists, image makers, and etiquette experts pay great attention to the color decision in clothes. The color training of future fashion designers requires the learning of factors affecting the perception of colors. By understanding the meanings of

colors, you can manage the impression and create the necessary image.

Color in fashion is a special aspect of research that covers the various directions of the function of color in suits. The prediction of color in a suit is based on the study of color perception and color preferences of people of different categories. Each specialist has his own color selection system for creating clothing models, which is a serious component of the designer's author's style and determines his exclusive creative manner. Using different colors and their shades, in individual designs, the author conveys to the form an emotional coloring of different tension and content, which depends on the purpose of the clothes, character, and age of the consumer.

In the process of artistic design of a suit, it is necessary to take into account aspects of the psychological impact of the color component on the viewer, because the color environment affects the mood of a person and society as a whole. By choosing certain colors and shades, the designer can evoke associations and experiences programmed by the image of the suit.

Changing color combinations in clothes happens more often than changing the silhouette, proportions, or structural details. In fashion design, there is a concept of "professional color culture", which means the ability to work with color and is related to both the symbolism of color and its psychophysiological impact. Education of future designers is a process that should include studying not only aesthetic but also emotional and psychological aspects of the influence of color. This is necessary because the color in the suit pretends to transform the emotional subconscious attitude to the situation into a conscious embodiment – fashionable colors of the season. On average, the color is considered relevant from one to three years. This period of time is allocated by the nature of social communication for the transition to the next stage of the intellectual development of society.

BIBLIOGRAPHY

- 1. Гете Й. Вчення про колір. Кам'янець-Подільський: Абетка. 2019. 256 с.
- 2. Іттен Й. Мистецтво кольору. Суб'єктивний досвід і об'єктивне пізнання як шлях до мистецтва. Київ : Art Haas. 2022. 96 с.
- 3. Капран О.В. Особливості сприйняття кольору і дизайн одягу. *Світогляд Філософія Релігія* : зб. наук. пр. ДВНЗ УАБС СумДУ. Суми : Коллаж-Принт. 2020. Вип. 15. С 61–68.
- 4. Лагода О.М. Колір в дизайні одягу: аспекти вивчення та особливості сприйняття. Вісник Харківської державної академії дизайну і мистецтв. 2007. № 2. С. 61–69.
- 5. Лисиця В.Т. Колірні моделі та закони поширення світла: навчальний посібник. Харків : ХНУ імені Н.В. Каразіна. 2012. 82 с.
- 6. Люшер М. Психологія кольору/ https://alexus.com.ua/viznachennya-ta-znachennya-koloriv-u-psixologi%D1%97-za-lyusherom/#lwptoc (дата звернення: 06.02.2022).
- 7. Пазиніч С.М. Філософія моди і її вплив в царині спілкування. *Проблеми та перспективи формування національної гуманітарно-технічної еліти*: зб. наук. пр. Харків: HTУ«ХПІ». 2011. Вип. 28 (32). С. 173–184.
 - 8. Прищенко С.В. Кольорознавство : навчальний посібник. Київ : Кондор. 2018. 436 с.

- 9. Шевченко І.І. Колір як естетичний феномен : автореф. дис. на здобуття наук. ступ. канд. філософ. наук. КНУ ім. Т.Г. Шевченка. Київ. 2000. 17 с.
- 10. Kolenda N. Methods of Persuasion: How to Use Psychology to Influence Human Behavior. Kolenda Entertainment, LLC. 2013. 240 p.
 - 11. Packard V. The Hidden Persuaders: Ig Publishing. 2007. 240 p.
 - 12. Weinschenk S. 100 More Things Every Designer Needs to Know About People: New Riders. 2020. 256 p.

REFERENCES

- 1. Hete Y. (2019) Vchennia pro kolir. [Science about color] Kamianets-Podilskyi: Abetka. 256. [in Ukrainian].
- 2. Itten Y. (2022) Mystetstvo koloru. Subiektyvnyi dosvid i obiektyvne piznannia yak shliakh do mystetstva. [The art of color. Subjective experience and objective cognition as a way to art] Kyiv: Art Haas. 96. [in Ukrainian].
- 3. Kapran O. (2020) Osoblyvosti spryiniattia koloru i dyzain odiahu. [Features of color perception and clothing design] Svitohliad Filosofiia Relihiia: zb. nauk. pr. DVNZ UABS SumDU. Sumy: Kollazh-Prynt. Worldview Philosophy Religion: coll. of science papers DVNZ UABS Sumy State University. Sumy: Collage-Print. 15. 61–68. [in Ukrainian].
- 4. Lahoda O. (2007) Kolir v dyzaini odiahu: aspekty vyvchennia ta osoblyvosti spryiniattia. [Color in clothing design: aspects of study and features of perception] Visnyk Kharkivskoi derzhavnoi akademii dyzainu i mystetstv. − Bulletin of the Kharkiv State Academy of Design and Arts. № 2. 61–69. [in Ukrainian].
- 5. Lysytsia V. (2012) Kolirni modeli ta zakony poshyrennia svitla: navchalnyi posibnyk. [Color models and laws of light propagation: a study guide] Kharkiv: KhNU imeni N.V. Karazina. Kharkiv: KhNU named after N.V. Karazin 82. [in Ukrainian].
- 6. Liusher M. (2022) Psykholohiia koloru. [Color psychology] https://alexus.com.ua/viznachennya-ta-znachennya-koloriv-u-psixologi%D1%97-za-lyusherom/#lwptoc (accessed 6 February 2022). [in Ukrainian].
- 7. Pazynich S. (2011) Filosofiia mody i yii vplyv v tsaryni spilkuvannia. [The philosophy of fashion and its influence in the field of communication] Problemy ta perspektyvy formuvannia natsionalnoi humanitarno-tekhnichnoi elity: zb. nauk. pr. Kharkiv: NTU "KhPI" Problems and prospects of the formation of the national humanitarian and technical elite: coll. of science papers Kharkiv: NTU "KhPI". 28 (32). 173–184. [in Ukrainian].
- 8. Pryshchenko S. (2018) Koloroznavstvo: navchalnyi posibnyk. [Color science: a study guide] Kyiv: Kondor. Kyiv: Condor 436. [in Ukrainian].
- 9. Shevchenko I. (2000) Kolir yak estetychnyi fenomen: [Color as an aesthetic phenomenon] Avtoref. dys. na zdobuttia nauk. stup. kand. filosof. nauk. KNU im. T.H. Shevchenka. Kyiv. Abstract of the diss. for obtaining sciences. degree Ph.D. philol. of science KNU named after T.G. Shevchenko. Kyiv 17. [in Ukrainian].
- 10. Kolenda N. (2013) Methods of Persuasion: How to Use Psychology to Influence Human Behavior. Kolenda Entertainment, LLC. 240.
 - 11. Packard V. (2007) The Hidden Persuaders: Ig Publishing. 240.
 - 12. Weinschenk S. (2020) 100 More Things Every Designer Needs to Know About People: New Riders. 256.