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A Study of Color Theory and Methodology in Painting Studies

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Abstract

Painting studies constitute one of the fundamental methods in fine arts education and artistic practice for developing color perception, observational skills, and visual thinking. The aim of this study is to examine the theoretical foundations of color in painting studies, the methodological characteristics of color application, and the expressive use of color in the works of Mongolian artists. The research employed document analysis, art-historical analysis, comparative analysis, as well as visual and chromatic analytical methods. From the perspective of color theory, the study investigates the conceptual frameworks of Michel Eugène Chevreul, Johannes Itten, and Wassily Kandinsky, while analyzing selected painting studies created by prominent Mongolian artists. Particular attention is given to color harmony, the relationship between warm and cool colors, the treatment of light and shadow, and the psychological and aesthetic effects of color. The findings reveal that color in Mongolian painting studies functions not merely as a means of reproducing the appearance of nature, but also as a significant artistic device for conveying spatial perception, atmosphere, and the tonal qualities of time and environment. Furthermore, the study demonstrates that color harmony, chromatic relationships, and the rendering of light and atmospheric conditions contribute substantially to artistic expression and play a decisive role in shaping the distinctive visual language of Mongolian painting studies.

Keywords: Painting Studies, Color Theory, Color Harmony, Color Expression, Fine Arts, Mongolian Painting.

1. Introduction

Color is one of the fundamental elements that determines the meaning, artistic expression, and psychological impact of a work of art. In painting studies, in particular, color serves as an essential medium for capturing natural light, atmospheric conditions, and the transient transformations of time. Because painting studies emphasize observation, direct perception, and the authentic representation of chromatic relationships, they are widely regarded as one of the most effective forms through which color theory can be translated into artistic practice.

The theoretical foundations of color, including its nature, harmony, and psychological effects, were established through the pioneering studies of scholars such as Michel Eugène Chevreul, Johannes Itten, and Wassily Kandinsky. Their contributions have become indispensable cornerstones of contemporary art education and artistic methodology. Within Mongolian fine art, painting studies depicting natural scenery and everyday life developed rapidly from the mid-twentieth century onward, leading to significant advances in chromatic harmony and the expression of atmospheric and spatial effects through color. Despite this development, comprehensive studies examining the theoretical foundations of color, methodological approaches to its application, and its artistic expressive functions within Mongolian painting studies remain relatively limited.

Accordingly, the purpose of this research is to identify the theoretical foundations of color and to analyze the characteristics of color application, harmony, and expression in painting studies created by Mongolian artists.

To achieve this objective, the following research tasks were established:

1. To review and synthesize the major theoretical concepts of color theory;
2. To identify the methodological characteristics of color application in painting studies;
3. To examine the implementation of color expression in selected

works by Mongolian artists;

4. To explore the aesthetic, psychological, and philosophical significance of color in painting studies.

2. Research Methodology

This study adopts a qualitative research approach within the field of art studies. As part of the research process, documentary analysis was conducted on major theoretical sources concerning color studies, as well as on scholarly works related to the history and theory of Mongolian fine art. The primary sources included the color theories of Michel Eugène Chevreul, Johannes Itten, and Wassily Kandinsky, together with the writings and scholarly contributions of Mongolian art researchers such as Ts. Erdenetsog, J. Tumurbat, G. Erdenebileg, and other specialists in the field.

2.1. The Research was Carried out using the Following Methods

Documentary Analysis: Theoretical and historical sources concerning color theory, color harmony, and the psychology of color were comparatively examined in order to establish the conceptual framework of the study.

2.1.1. Art Historical and Visual Analysis

Selected works by prominent Mongolian artists, including O. Tsevegjav, L. Gavaa, Ts. Jamsran, M. Damdinsuren, and Ts. Dorjpalam, were analyzed from the perspectives of chromatic structure, color relationships, contrasts between warm and cool colors, and the treatment of light and shadow.

2.1.2. Comparative Analysis

The chromatic expression observed in Mongolian painting studies was compared with major Western theories of color in order to identify both convergent and divergent characteristics.

2.1.3. Visual and Chromatic Analysis

The selected artworks were examined with particular attention to color palettes, chromatic dominance, color balance, and the psychological effects of color. Through this analysis, the distinctive characteristics of artistic expression manifested through color were interpreted and explained.

3. Main Study

Color is the most fundamental language of expression in visual art. It is not merely a physical phenomenon but a complex concept encompassing the artist's emotions, the viewer's psychological perception, and culturally embedded meanings. During the nineteenth and twentieth centuries, scientific and philosophical theories of color underwent significant development, laying the theoretical foundations for contemporary understandings of artistic color application. Among the most influential theorists, Michel Eugène Chevreul, Johannes Itten, and Wassily Kandinsky each interpreted the artistic nature of color from distinct perspectives. Their theories have become essential frameworks for analyzing chromatic expression in painting studies and have exerted a profound influence on Mongolian painting.

French chemist Michel Eugène Chevreul, in his seminal work De la loi du contraste simultané des couleurs (1839), formulated the principle of simultaneous contrast [1]. His central proposition was that color derives its expressive power not in isolation but through its relationships with neighboring colors. The appearance and perceptual value of every color are modified by adjacent hues, thereby contributing to the overall atmosphere of an artwork. This principle is particularly significant in painting studies, where colors are often selected rapidly and intuitively in response to direct observation. Consequently, the interaction among colors becomes highly visible. For example, in studies of the Mongolian steppe, the blue of the sky appears more intense when juxtaposed with the brown and ochre tones of the land, while the white coloration of livestock acquires greater depth against a green grassy background. Such instances clearly demonstrate the practical application of the law of simultaneous contrast in painting studies.

Johannes Itten developed a more systematic theoretical approach to artistic color application. His influential publication The Art of Color (1961) profoundly shaped twentieth-century art, design, and visual education [2]. Itten formulated a twelve-hue color wheel and identified seven types of color contrast: light-dark, warm-cool, complementary, saturation, extension, hue, and simultaneous contrast. In painting studies, these contrasts serve as powerful expressive devices. For instance, the warm-cool contrast is evident in the works of Mongolian artist B. Chogsom, where the juxtaposition of golden grasslands and blue skies creates visual tension. Likewise, the contrast of light and dark is strongly manifested in O. Tsevegjav's landscape studies, where bright sunlight is set against deep shadow. Such chromatic contrasts enrich painting studies with dynamism and expressive vitality, enabling the lyrical representation of transient moments in nature.

Wassily Kandinsky was among the first theorists to approach color from a philosophical perspective. In Concerning the Spiritual in Art (1911/1977), he introduced the concept of the inner "sound" of color, describing color as a vibration capable of evoking emotional and spiritual responses [3]. According to Kandinsky, each color possesses its own intrinsic rhythm and psychological resonance. Yellow signifies solar energy and movement; blue conveys tranquility and spirituality; red expresses power and vitality; and green symbolizes balance and harmony. Applied to painting studies, Kandinsky's theory allows color to transcend mere imitation of nature and become a vehicle for the artist's inner experience. This perspective is deeply embedded in the works of Mongolian painters. In O. Tsevegjav's paintings, the blue of the mountain's functions not only as a representation of nature but also as an expression of inner serenity. Similarly, the golden-yellow tones in B. Chogsom's works evoke the lyrical melancholy of autumn.

Taken together, these theories provide a comprehensive framework for understanding chromatic expression in painting studies. Chevreul explained the physical and optical properties of color, Itten established a systematic compositional approach, and Kandinsky explored the psychological and philosophical

dimensions of color. Collectively, their theories offer an integrated theoretical foundation for interpreting artistic color expression in painting studies. Color serves as a powerful medium for communicating immediate perception, conveying the lyricism of nature, and expressing philosophical reflections on human emotion [4].

The application of color in painting studies emerges through spontaneous artistic action. Color not only records the light, atmosphere, and temporal qualities of a particular moment but also reflects the internal emotional state of the artist. The pale greens of spring, vivid yellows of summer, golden hues of autumn, and whites of winter are not simple reproductions of nature; rather, they symbolize psychological states and the cyclical philosophy of life. For Mongolian artists, seasonal colors become expressions of cultural sensitivity and poetic interpretations of existence.

The relationship between light and color occupies a central position in the expressive language of painting studies. Light is the essence of color, and within painting studies, the direction of sunlight, time of day, and atmospheric conditions determine chromatic effects. In the works of O. Tsevegjav, the bluish tones of morning and the reddish glow of evening continually transform mountain forms, conveying the living dynamism of nature. Such phenomena define the visual rhythm and poetic atmosphere of painting studies.

Color expression influences not only the representation of nature but also the psychological response of viewers. Psychological research suggests that blue evokes calmness, yellow conveys energy, red stimulates activity, and brown generates a sense of depth and seriousness [5]. These psychological effects operate especially rapidly within painting studies, where immediate visual perception plays a dominant role. In the studies of S. Jamts, the predominance of red and brown tones communicates movement and strength, generating a vivid sense of vitality for the viewer.

Twentieth-century artistic movements introduced new philosophical perspectives on color. The Impressionists employed color as a means of capturing transient effects of light and time, investigating how natural colors change under varying illumination [6]. Expressionists, by contrast, regarded color as an expression of inner emotional states. In the paintings of Vincent van Gogh, yellow and blue were not objective representations of reality but manifestations of emotional intensity and psychological energy. Influenced by these movements, Mongolian artists increasingly adopted color as a subjective and lyrical means of expression, deepening the philosophical significance of their painting studies.

Mongolian painting studies have developed a distinctive chromatic palette. In the works of O. Tsevegjav, the harmony of the golden steppe, blue mountains, and white ger (traditional dwelling) vividly expresses the unique qualities of Mongolian life and landscape. B. Chogsom's paintings demonstrate strong warm-cool contrasts that heighten the viewer's perception of light and atmosphere. In S. Jamts's studies, brown and red hues emphasize movement and vitality, lending an expressive character to the compositions. These characteristics form the foundation of the distinctive chromatic language of Mongolian painting studies.

Color functions not only as an artistic device but also as a philosophical medium. In Mongolian painting studies, color expresses the philosophical dimensions of nature, daily life, time, and the interplay of light and shadow. The blue sky symbolizes freedom and tranquility; the golden steppe represents labor and fertility; and the white ger signifies the center of domestic life and existence itself. Through such associations, color becomes a manifestation of Mongolian cultural identity and national consciousness.

In the twenty-first century, the philosophy of color has entered a new stage, shaped by digital technology, environmental concerns, and urban artistic practices. Digital painting studies have expanded chromatic possibilities and enabled more sophisticated representations of light and shadow. Software such as Procreate and Adobe Photoshop allows artists unlimited opportunities for chromatic experimentation, making color application more flexible and expressive. Young Mongolian artists increasingly employ digital painting studies to explore multiple variations of natural color, visualize climate-related transformations, and establish new forms of interaction with audiences through digital platforms.

At the same time, ecological concerns have generated new interpretations of color philosophy within painting studies. Climate change, desertification, and environmental degradation are increasingly reflected in chromatic choices, with ochre, beige, and gray tones becoming more prevalent. Such palettes communicate the philosophy of environmental decline and foster ecological awareness among viewers [7]. Contemporary Mongolian artists frequently use chromatic transformations to express environmental concerns, transforming color into a philosophical medium that addresses pressing social and ecological issues.

Color is a complex and sophisticated artistic instrument of representation and expression that performs a crucial role within pictorial composition. Art history provides abundant evidence of this significance. Every color is subject to change under the influence of light. Denis Diderot illustrated this principle through a simple example, noting that when comparing a landscape on a sunny day with the same landscape on an overcast day, sunlight intensifies contrasts between light and shadow, while the overall scene may appear pale or grayish. He further argued that light itself possesses a subtle coloration that functions as the general coloristic atmosphere of a painting.

The paintings created during the 1950s and 1960s by artists such as O. Tsevegjav (Battle of Stallions, Horse Trainer), N. Tsultem (Steppe Family, At the River), L. Gavaa (Cinema Mechanic, Altai Mountains), Ts. Jamsran (Mountain Corner), and L. Namkhaitseren (Students in the Gobi, Dancers) embodied a new artistic sensibility that enriched observed reality through imaginative interpretation and poetic expression. Although innovative in conceptual approach, these works largely preserved the traditional classical

structure of composition. The underlying principle maintained that the central thematic focus of a painting should remain clearly identifiable and be emphasized through distinctions of color, light, and form [8].

Researchers of color have demonstrated that all visible objects in nature contain, reflect, and transmit components of the seven principal colors of the rainbow. Through the addition of a deep crimson hue created by combining red and violet, theorists expanded the conventional seven-color spectrum into an eight-color system, facilitating more sophisticated analyses of color harmony, contrast, complementary relationships, and warm-cool interactions [9].

When compared with formal theories of color, Mongolian traditions reveal a highly developed sensitivity to color perception, including a rich and distinctive terminology. For centuries, both Eastern and Western peoples have adapted color usage to their respective customs, cultures, and artistic traditions while seeking to understand the causes underlying chromatic perception and experience [10].

As Mongolian artists adopted European painting techniques while building upon the rich heritage of traditional Mongolian painting, they were required to master the theories of color harmony and pictorial representation in order to depict form, space, atmosphere, and natural transformation more effectively [11].

From the earliest stages of landscape painting development in the 1940s, Mongolian artists employed expressive color approaches influenced by Impressionism to capture the changing qualities of outdoor light and atmosphere. The influence of K. I. Pomerantsev, who educated artists such as O. Tsevegjav and L. Gavaa through the artistic traditions of Krasnoyarsk and Ulaan-Ude, laid the foundation for later achievements in color harmony. During the 1950s and 1960s, purely descriptive color copying and detailed rendering gradually gave way to more lyrical and romantic landscape painting characterized by expressive brushwork, chromatic sensitivity, and artistic inspiration [11].

The world is beautiful through color, for wherever light exists, color is present. Perceptions of light, shadow, depth, and form are deeply interconnected with chromatic reflection. The power of color is extraordinary because it communicates emotional states. Among all visual sensations, color possesses perhaps the strongest capacity to evoke joy, melancholy, excitement, and reflection. In this sense, color becomes a direct expression of the human inner world [12].

According to art historian Ts. Erdenetsog, Mongolian landscape painters successfully combine the general principles of spatial perspective with impressionistic color sensations, thereby enhancing the aesthetic appeal of the environment. A significant development in Mongolian landscape painting has been the evolution of painterly technique. The ability to convey motion through brushwork depends upon the artist's sensitivity and creative skill. Early Mongolian landscapes often favored restrained gray tonalities, whereas contemporary works increasingly seek to express temporal changes in sunlight through rich chromatic transformations. Such tendencies are evident in works including L. Ganbold's Full Moon Night (1999), Ch. Bizyaa's Gentle Season (2015), and Ch. Ichinnorov's Sutai (2005). Throughout its historical development, Mongolian landscape painting has evolved from naturalistic representation toward realist and impressionistic modes of expression, ultimately embracing saturated colors, concise visual language, and expressive painterly techniques from the mid-twentieth century onward [8].

As G. Erdenebileg (2016, p. 35) notes, colors function differently depending on whether the artist works with light or pigment. The process known as color harmony, or color scheme, involves the deliberate selection and application of two or more colors within a single composition.

Color is a complex artistic means of visual representation and expression that occupies a central place in pictorial composition. Nevertheless, the colors of painting derive from material reality and have their origins in the observable world. Classical masters of landscape painting frequently depicted the shadows of summer trees using brown tones, even though brown shadows do not literally exist in nature. Yet such representations never appear implausible to the viewer, demonstrating the transformative power of artistic color in creating convincing visual realities [13].



Figure 1. Chromatic analysis of Ts. Dorjpalam's Khalkh Woman.

In this painting study, color serves as the principal expressive device. Through the use of complementary contrasts between orange and blue-violet hues, the artist resolves light and shadow relationships by juxtaposing warm and cool colors. The chromatic treatment is not naturalistic but rather expressive, demonstrating a preference for free and subjective color over direct observation. Instead of reproducing local color, the artist seeks to convey perceptual and emotional experience: light is rendered through unconventional yellows and pale oranges, while shadows are articulated with violet and blue tones. In certain areas of the background, thick impasto applications of paint are evident. Vigorous brushwork is employed, leaving visible traces of the brushstroke and gesture. Dynamic, energetic lines remain exposed rather than concealed, creating a palpable sense of movement. This combination of diverse painterly techniques intensifies the narrative force of the composition, emphasizing not merely visual

representation but also the artist's physical engagement with the act of painting, thereby conveying the immediacy and energy of the creative process itself.

Ts. Dorjpalam's Khalkh Woman demonstrates a remarkable mastery of chromatic harmony and balance. In this work, the artist predominantly employs warm colors, creating a vivid and lifelike representation of the sitter. The flesh tones, composed of ochres, warm yellows, and subtle pinkish hues, blend seamlessly to evoke the effects of natural light. Such chromatic transitions play a crucial role in achieving a convincing and nuanced depiction of human skin.

The figure's costume is dominated by deep brown and reddish-brown tones, which lend visual weight and compositional stability to the painting. At the same time, ornamental details incorporating red, green, blue, and yellow enrich the overall color scheme, introducing chromatic variety and vitality. These colors do not compete with one another; rather, they merge harmoniously, accentuating the intricate craftsmanship and decorative richness of traditional attire. The background is rendered in cool blues and grays, enabling the figure to emerge prominently from the pictorial space. The contrast between the warm tones of the subject and the cool hues of the background generates a sense of spatial depth and enhances the painting's realism. This carefully orchestrated chromatic arrangement directs the viewer's attention immediately toward the figure, demonstrating the effectiveness of the artist's color choices.

The treatment of light and shadow is likewise closely integrated with the color structure of the composition. Illuminated passages, seemingly receiving light from the upper left, are expressed through warm tonal variations, whereas the shadowed areas incorporate cooler blues, greens, and grays. This interplay clarifies the figure's form and volume while simultaneously enriching the painting's spatial qualities. Through the coexistence of subtle gradations and chromatic contrasts, the work achieves a notable sense of depth and visual cohesion. In conclusion, the painting exemplifies the artist's sophisticated command of color through the balanced integration of warm and cool hues. Within an atmosphere shaped by soft, naturalistic tonal relationships, the human figure is presented with clarity, realism, and structural coherence, revealing the painter's exceptional sensitivity to chromatic organization and harmony.

L. Gavaa's Bed in a Russian Household is distinguished by its restrained yet highly sophisticated color harmony and its evocative atmosphere. The artist relies primarily on earthy and natural hues, effectively conveying the simplicity and authenticity of an everyday interior. Browns, ochres, and grays dominate the walls, floor, and furnishings, and their close tonal relationships establish a strong sense of spatial unity.

The bed, which serves as the focal point of the composition, is rendered in comparatively warmer colors and therefore stands out within the interior setting. The patterned bedspread incorporates touches of blue, red, yellow, and green; however, these colors are subdued rather than vibrant. As a result, they do not disrupt the overall harmony of the composition but instead introduce a subtle sense of rhythm and visual interest. The warm yellowish and golden tones of the stacked pillows at the head of the bed further reinforce this chromatic center, drawing the viewer's attention toward the focal area.

At the same time, the cooler blues and grays visible around the window suggest the presence of atmospheric light and air, creating a balanced contrast with the warmer sections of the painting. This chromatic opposition contributes significantly to the perception of spatial depth and the differentiation of light and shadow. The illumination appears to enter from the direction of the window, with light-struck areas rendered in pale yellows and light ochres, while shadowed passages are expressed through grays, browns, and subtly cool tonal variations.



Figure 2: Chromatic decomposition of L. Gavaa's Bed in a Russian Household.

From a chromatic perspective, the work is characterized not by strong contrasts but by moderate tonal differentiation. The transitions between colors are gradual and gently modulated, producing an atmosphere of calmness and tranquility. Although the artist employs warm and cool colors in a balanced manner, the slight predominance of warm hues enhances the sense of comfort and intimacy inherent in the domestic interior. The result is a composition in which color functions not merely as a descriptive element but as a primary vehicle for expressing mood, spatial unity, and the quiet character of everyday life.

Ts. Jamsran's Winter Camp is a work distinguished by its restrained yet sophisticated chromatic orchestration, effectively conveying the simplicity and serenity of both the natural landscape and the rural living environment. Throughout the composition, the artist relies predominantly on warm earth tones, creating an authentic impression of the stillness and quietude characteristic of the winter season. Browns, ochres, and muted reddish-brown hues establish the principal color framework of the painting, lending structural solidity and visual weight to the wooden fences and architectural elements of the winter settlement. The pale ochre and subdued gray tones in the background not only reinforce the tranquil atmosphere of the setting but also subtly emphasize the building positioned at the center of the composition. These delicate and understated hues unify the pictorial space without introducing sharp contrasts, allowing the entire image to retain a sense of calm continuity. As a result, the background functions as a supportive chromatic field that enhances rather than competes with the primary motif.

Dark umber and deep brown passages within the wooden structures play a crucial role in articulating shadow and spatial depth. Their juxtaposition with the lighter ochre and golden tones

of illuminated areas accentuates the architectural forms, revealing volume, texture, and constructional detail. The direction of light appears to originate from the left, with sunlit surfaces rendered in warmer and brighter values, while shaded passages are expressed through darker browns, grays, and subtle greenish undertones.

Equally significant is the carefully measured introduction of green within the composition. Although used sparingly, these green accents evoke elements of the surrounding natural environment and provide gentle chromatic variation within the predominantly earthy palette. Rather than disrupting the harmony of the work, they introduce a restrained sense of freshness and visual vitality. Amid the closely related browns and ochres, the green tones are integrated with remarkable sensitivity, maintaining overall balance and cohesion.

In terms of chromatic relationships, warm colors clearly dominate the composition; however, the inclusion of gray and neutral tones moderates the visual impact and prevents excessive monotony. The absence of intensely saturated colors contributes to the painting's subdued atmosphere, as all hues operate within a relatively low tonal register. Gradual transitions between colors further strengthen the sense of unity, allowing the composition to unfold through subtle modulation rather than abrupt contrast. Viewed as a whole, Winter Camp demonstrates how color can function as more than a means of describing physical reality. Through a carefully balanced arrangement of warm earth tones, softened by gray and green nuances, the artist successfully communicates the quiet dignity and unpretentious character of rural life. The chromatic structure creates a convincing sense of unity, naturalism, and spatial coherence, presenting the everyday environment with clarity, authenticity, and emotional restraint.

M. Damdinsüren's Mountain River exemplifies a highly refined use of color relationships, contrasts, and tonal layering to evoke the vastness of the natural landscape and the subtle presence of light and atmosphere. Through a skillful integration of warm and cool hues, the artist differentiates various spatial zones within the composition while maintaining a coherent and harmonious visual whole.

The mountain peaks occupying the upper section of the painting are rendered in cool blues, muted greens, and soft grays. This chromatic treatment corresponds to the natural phenomenon of aerial perspective, whereby distant forms appear cooler, lighter, and less distinct. The subdued coloration gently dissolves the contours of the mountains, creating an impression of atmospheric distance reminiscent of a landscape veiled by mist. Occasional infusions of bluish-violet tones further intensify the sensation of mountain air and contribute to an overall mood of stillness and permanence.

In contrast, the middle ground, composed of rocky slopes and foothills, is characterized by the predominance of ochres, warm yellows, and earthy browns. These warmer tones suggest surfaces illuminated by sunlight and effectively reveal the rugged textures and structural formations of the terrain. Positioned against the cooler mountain ranges above, this chromatic zone generates a pronounced visual contrast that strengthens spatial differentiation and enriches the depth of the composition.

The meadows and open plains in the foreground are articulated through a wide spectrum of green hues. Varying from pale yellow-green to deep bluish-green, these tonal gradations impart a vivid sense of vitality and geographical specificity. This expanse of green not only introduces freshness to the overall palette but also serves as a chromatic bridge connecting the mountains and the sky. Consequently, the green foreground plays an important role in stabilizing and unifying the painting's broader color structure.

The sky is treated with nuanced combinations of bluish-gray and muted violet-gray tones that subtly reflect the qualities of ambient light. Rather than employing an intensely saturated blue, the artist incorporates restrained gray inflections, ensuring chromatic compatibility with the rest of the landscape. This deliberate moderation prevents the emergence of excessive contrast and contributes to the painting's overall atmosphere of calmness and equilibrium. As a result, the sky, mountains, and plains are perceived not as isolated elements but as interconnected components of a single environmental continuum.

From the perspective of color balance, cool hues occupy a dominant position throughout the composition, while warmer colors are strategically concentrated in specific areas to attract the viewer's attention. Blues and greens establish the principal tonal framework, whereas yellows and browns function as visual accents that animate the scene. This interplay generates a convincing sense of depth and directional movement across the landscape. Furthermore, the gradual transition between adjacent colors enhances the naturalistic character of the image, avoiding abrupt shifts and thereby reinforcing the authenticity of the depicted environment. Ultimately, Mountain River demonstrates Damdinsüren's exceptional ability to orchestrate warm and cool colors within a unified pictorial system. Through a nuanced balance of chromatic relationships, the artist successfully conveys the expansive character of the mountains, watercourses, and grasslands while preserving a strong sense of realism and atmospheric depth. Each color occupies a purposeful role within the visual structure, contributing to an overarching impression of harmony, spatial continuity, and the enduring grandeur of the natural world.

4. Discussion

The findings of this study demonstrate that the use of color in plein-air painting extends beyond the mere replication of the visible colors of the natural environment. Rather, color functions as an artistic language through which painters express personal perception, atmospheric conditions, and aspects of national cultural identity. The theoretical frameworks developed by Michel Eugène Chevreul in his theory of simultaneous color contrast, Johannes Itten's system of color contrasts, and Wassily Kandinsky's

psychological interpretation of color provide a valuable foundation for understanding chromatic expression in Mongolian plein-air painting.

A comparative analysis of works by O. Tsevegjav, L. Gavaa, Ts. Jamsran, M. Damdinsüren, and Ts. Dorjpalam reveals that color selection is directed less toward reproducing the objective hues of depicted subjects than toward communicating atmosphere, lighting conditions, and psychological responses. In this respect, these works share important affinities with the chromatic principles associated with Impressionism and Post-Impressionism, in which color serves expressive rather than purely descriptive purposes.

The study further indicates a pronounced tendency toward the use of ochres, browns, and warm earth tones in Mongolian plein-air painting. Such preferences may be understood in relation to the distinctive character of Mongolia's natural environment, traditional way of life, and nomadic cultural heritage. As a result, color assumes a role that extends beyond the depiction of landscape and everyday life, functioning as a vehicle for the transmission of cultural memory and artistic identity.

At the same time, the rapid development of digital technologies has expanded the possibilities of chromatic experimentation and visual representation. While these innovations provide new avenues for artistic exploration, they should not replace direct observation of nature or the cultivation of color perception. Rather, digital tools should be regarded as complementary means that enrich and extend traditional painterly practice.

Accordingly, future research on color in Mongolian plein-air painting may profitably examine the interrelationship between visual arts education, national chromatic traditions, and contemporary digital image-making practices. Such investigations would contribute to a deeper understanding of both the historical development and future trajectory of Mongolian painting.

5. Conclusion

This study examined the theoretical and methodological dimensions of color in plein-air painting and analyzed the ways in which color has developed as a fundamental means of artistic expression within representative works of Mongolian visual art. The following conclusions may be drawn.

First, color constitutes one of the primary factors shaping visual structure, compositional unity, and artistic expression in plein-air painting. Beyond representing form, light, and spatial relationships, color determines the overall palette, rhythm, and visual balance of a work. The effective organization of color not only enhances the credibility of natural representation but also contributes significantly to the artistic value of the painting.

Second, plein-air painting represents one of the most effective artistic practices through which theories of color are realized in practice. The necessity of responding rapidly to changing conditions of natural light, atmosphere, season, and time encourages artists to develop a refined understanding of color relationships, tonal transitions, and chromatic harmony. Consequently, plein-air painting serves as an essential pedagogical tool for cultivating color sensitivity and visual perception.

Third, the evolution of Mongolian plein-air painting has been closely connected to developments in the use of color. While works produced during the mid-twentieth century were largely characterized by a realist approach, subsequent generations embraced increasingly expressive and independent uses of color. Rather than functioning solely as a means of reproducing reality, color gradually became a vehicle for communicating the artist's individual perspective, emotional response, and creative vision. This transformation enriched the visual language of Mongolian painting and expanded the expressive potential of color as an autonomous artistic element.

Fourth, the works examined in this study demonstrate that the chromatic structure of Mongolian plein-air painting is deeply informed by the country's natural environment, geographical setting, and cultural worldview. Dominant visual motifs such as the golden steppe, brown earth, blue mountains, vast sky, and white ger derive significance not merely from observed reality but also from traditional perceptions of nature and long-established aesthetic values. In this context, color serves as an important component of Mongolia's artistic heritage and visual identity.

Fifth, the use of color is directly related to the psychological impact of a work on its viewers. Warm colors tend to evoke sensations of closeness, vitality, and movement, whereas cool colors generate impressions of calmness, openness, and spatial distance. The artworks analyzed in this study clearly demonstrate these perceptual effects. Color therefore functions not only as a visual device but also as a communicative language through which artists engage viewers on an emotional level.

Sixth, within the context of contemporary visual art, the study of color continues to expand in both scope and significance. Despite the emergence of digital technologies, new materials, and innovative methods of image production, the fundamental principles of color theory remain highly relevant. Plein-air painting continues to provide an indispensable foundation for developing visual observation, chromatic awareness, and creative expression. Consequently, integrating theoretical research on color with practical plein-air methodologies remains essential for the advancement of art education, scholarly inquiry, and artistic practice.

In conclusion, color in plein-air painting is far more than a technical or decorative element. It constitutes a complex and integrated means of expressing nature, space, time, cultural identity, and human perception. As such, the study of color in Mongolian plein-air painting represents an important and independent field of art-historical inquiry. Further theoretical and practical investigation of its distinctive chromatic language will make a significant contribution to a more comprehensive and scientifically grounded

understanding of the development of Mongolia's visual arts.

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