

The Application of Gray Tonal Language in Modern and Contemporary Copperplate Prints

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Abstract: The gray tonality is a color language with both neutral characteristics and rich levels. It has something special in the creation of modern and contemporary copperplate prints, and it is easily overlooked. This paper starts with the visual attributes, emotional bearing, and aesthetic characteristics of gray tonality, and analyzes its internal logic of correspondence with the copperplate media technology. Thinking about the creative practice of flying dust, line engraving, color printing, and other different techniques, this paper analyzes the concrete application and spiritual expression function of gray tonal language in copperplate printing. It is considered that the gray tonality can deepen the expression of the spirit of copperplate prints and give a new practical way to explore the diversification of color language in contemporary copperplate prints.

Keywords: Gray tone; Modern and contemporary copperplate prints; Flying dust technique; Line texture; Overcolor printing

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1. Introduction

Copperplate print is regarded as a category with both technical depth and artistic texture, and its various techniques, such as etching, flying dust, and Merotone, jointly support the rich expression space of copperplate. For a long time, monochrome copperplate prints have impressed viewers with their delicate and accurate picture texture and elegant and quiet artistic temperament. The public's cognition of the color of copperplate prints mostly stays in two directions: black and white poles and high saturation color matching. In fact, the gray tonality between black and white has a very delicate expression, and its natural fit with the copperplate technique is far from being fully explored. It is of practical significance to sort out the linguistic characteristics of gray tonality and explore its application path in modern and contemporary copperplate prints, which will enrich the color expression system of copperplate prints and deepen the spiritual core of works.

2. The charm of gray tonal language

2.1. The visual attribute of gray tonality

Gray belongs to the core color gamut of the achromatic color system, and its visual characteristics are determined by three basic elements: hue, purity, and lightness. From the perspective of hue, gray has no obvious color tendency, but due to the difference in harmonic components, it can derive different deviations such as cold gray and warm gray, showing very rich subtle changes. On the purity level, all grays are in the low saturation range, which will not bring strong stimulation to the vision, but can pay more attention to the texture and shape of the picture. Brightness is the most expressive dimension of gray tonality, and the human eye's ability to distinguish between gray and light is far greater than its perception of pure color. From light gray close to white to dark gray close to black, it can be divided into dozens of recognizable levels. The subtle level changes enable gray to carry a lot of picture information, showing rich details in the gentle visual rhythm, which is also the difference between gray tonality and other colors ^[1].

2.2. The emotional expression of gray tonality

The emotional expressive power of color comes from the psychological association formed by the viewer's long-term visual experience, and gray tonality is more inclusive and ambiguous in emotional bearing. Different from the clear direction that red corresponds to passion and blue corresponds to silence, the emotions conveyed by gray are more restrained and implicit. Gray with different lightness and inclination can correspond to completely different emotional experiences. Bright light gray has a calm and soothing temperament, which is suitable for expressing a quiet and indifferent state of mind; Moderate neutral gray has the characteristics of restraint and rationality, and can carry a speculative and quiet mental state; Dark gray has its own gloomy and heavy texture, which can convey dignified and thoughtful emotions. In China's traditional ink painting art, the ink is divided into five colors, which are essentially to bear the artistic conception of mountains and rivers and the interest of literati with different levels of gray. In modern and contemporary artistic creation, gray is more often used to express the individual's calm observation of the world, to avoid the emotional incitement of high saturation color, and to let the viewer sink into a more internal spiritual experience.

2.3. The aesthetic characteristics of gray tonality

The aesthetic value of gray tonality lies in its own sense of tolerance and blank space. This characteristic makes gray have a unique vitality in contemporary art. Highly saturated colors often directly limit the emotional tone of the picture, while gray cannot forcibly render a certain emotion; on the contrary, it leaves more room for the viewer to think and forms an aesthetic blank effect. Gray can reduce visual conflicts and make different elements unified in the whole tonality, but it does not affect the expression of details such as texture and lines. Especially in today's environment where consumerism visual culture prevails, a large number of highly saturated colors are filled with our visual nerves, but the gray tonal and quiet texture forms a sharp contrast, which is in line with modern people's exploration of the inner spiritual world. Because it is unobtrusive and does not cater to the fashion trend, gray tonality is also used as the first choice color language for many artists to express their thoughts.

3. The relationship between modern and contemporary copperplate prints and gray tonal language

3.1. The natural fit between copperplate media and gray language

The creation of copperplate prints depends on the corrosion and printing of metal plates, and the technological attributes of the media itself determine that there is a natural correspondence between it and the gray tonal language. The modeling system of traditional copperplate prints is based on lines and light and dark levels. Artists use the density of lines and the depth of corrosion to express the light and dark relationship of the picture. This process is essentially building different gray levels. The flying dust technique controls the corrosion degree through the granular anti-corrosion layer, and can directly obtain a uniform and delicate gray surface; the Merutin technique controls the light and shade by the density of the printing plate, which can achieve a very smooth gray transition from black to white. Since its birth, these core techniques of copper plate have been linked with the control of gray level, but traditional creation mostly regards gray level as an accessory of black and white modeling, and does not treat it as an independent color language. The powerful presentation ability of copper plate media for gray scale has laid a solid technological foundation for the independent expression of gray tonality.

3.2. Printing process to enrich the expression of gray scale

The final presentation of copperplate prints goes through the printing process, and this indirect creation process gives more variable space and special texture to the gray tonal expression. When printing, artists can change the effect of gray scale on the same page by controlling the thickness of ink, the wiping weight, and the pressure. The gray of thin printing will reveal the background color of the paper, which has a light and transparent texture; Thick printed gray is thicker and more solid, with a strong ink touch. The subtle ink marks left when wiping the plate will make the gray surface have natural texture changes, which is different from the monotonous feeling of flat painting gray. Different materials of paper have different adsorption capacity for ink, which will also cause the same ink to show different gray-scale effects. When overprinting multiple editions, gray overprinting with different tendencies will also produce more subtle intermediate tones, which are not achieved by hand-painted gray. The process characteristics of copperplate printing give gray tonality a richer texture level.

3.3. Gray language turn in modern creation

The creation of modern copperplate prints gradually separated from the function of reproduction and turned to the expression of the artist's subjective spirit, and the status of gray tonality also changed fundamentally in this process. Early color copperplate prints are mostly works that reproduce the color of objective objects, and gray is only a transition and embellishment in the picture. After entering the modern era, more and more artists began to take the gray tonality as the main tone of the picture, and used gray to carry individual life experience and observation and thinking about society. Introspective themes such as the spiritual dilemma of contemporary society, the alienation of urban life, and the absurdity of personal existence are difficult to be accurately expressed with high saturation colors, and the gray introverted colors just meet the expression needs of such themes. Artists no longer regard gray as a transitional color between black and white, but as an independent language of spiritual expression. This change of creative concept makes gray tonality have a broader creative space in modern and contemporary copperplate prints ^[2].

4. The application of gray tonal language in contemporary copperplate prints

4.1. The construction of gray level under the flying dust technique

The flying dust technique is the main technique to shape the surface light and shade in copperplate prints, and it is also the most direct way to present gray tonality. The creator can adjust the thickness, distribution density, and corrosion time of flying dust particles, so as to obtain gray planes with different brightness and realize the continuous transition from bright gray to dark gray. Traditional flying dust techniques are often used as an auxiliary means to sketch the relationship. In modern and contemporary creation, the creators began to make the gray generated by flying dust become the absolute subject of the picture, and directly constitute the mood and space of the picture with different levels of gray.

Fan Min's "Sacrifice to My Couple -9" is a model of this kind of creation. The work takes the humanoid idol wrapped in fabric as the core image, and there is no obvious hard edge of the outer contour. All of them use different levels of flying dust gray and Merotone techniques to construct the body volume and gloomy space atmosphere. The creator uses very fine flying dust particles for shallow corrosion, forming a light gray close to the bright part, outlining the pleated edge of the fabric and the raised figure outline, just like the faint light in the dark space; Moderate density flying dust combined with moderate corrosion time produces soft medium gray, spreads the main structure of fabric and human body, and presents the thick texture of fabric winding and stacking in detail; The dense flying dust and the dark gray formed by long-term corrosion fill the shadow and background of wrinkles, and set off a dignified and depressing overall atmosphere.

There is no obvious boundary between different levels of gray, and the gradual change of corrosion degree makes the gray transition very natural. The whole picture is covered with a unified dark gray tone, but it has extremely rich level changes. The viewer cannot see the strong color contrast, but can feel the tight tension of fabric winding and the mental state of the characters struggling from the delicate gray change. The grainy texture of the gray generated by the flying dust technique will not appear monotonous and boring, and the subtle graininess gives the gray a sense of breathing, which makes the theme of human alienation get rid of the straightforward narrative expression and move towards a more spiritual metaphor expression. Such a creative way breaks the auxiliary orientation of flying dust technique and makes gray itself the expression core of conveying the spiritual core of the work ^[3].

4.2. The gray semantic transformation in line-carving texture

Line engraving is the most basic technique of copperplate engraving. The traditional cognitive function of line engraving is to outline and shape the figure. In fact, the dense arrangement of lines can also build a rich gray level, and this gray generated by lines has its own unique texture. Modern and contemporary artists no longer regard the gray scale of line engraving as an accessory of modeling, but actively transform the arrangement of lines, so that the generated gray bears specific emotions and semantics and conveys the spiritual core of the work with linear gray.

The copperplate figure works of Li Xiaolin have well interpreted the expressive power of line-carved gray. Li Xiaolin's copperplate creation does not use flat painted gray blocks, and all the brightness and volume depend on the dense arrangement of etched lines. When depicting the facial skin of characters, he arranges light gray tones with sparse and gentle curves, and the lines follow the structure of the skin; the soft light gray conveys the temperature and texture of the skin. When representing characters' beards and clothes shadows, he arranged dark gray tones with dense and staggered straight lines, and the heavy lines brought heavy visual weight.

4.3. The application of gray harmony in color printing

Color matching is the core technology of color copperplate prints. Most color matching creations will choose highly saturated colors to form visual contrast. However, some modern and contemporary artists do the opposite, overprinting with different inclinations of gray, and rely on the slight difference between cold and warm gray to build a picture level, forming a low-saturated gray tonal expression. This creative way weakens the visual impact of color, but strengthens the emotional atmosphere and spiritual texture of the picture, which is suitable for expressing the theme of alienation and introversion.

The series “What you don’t want to talk about or are talking about gracefully” by printmaker Kong Guoqiao is a model of this kind of creation. The work adopts multi-version color matching technology, and there is no solid color with high saturation in the whole picture. All the color blocks are gray with different tendencies. The face and skin of the characters are expressed in light gray and warm tones. The weak characteristics of warm tones weaken the cold feeling of the characters, but maintain the alienated temperament. The clothes and background of the characters are presented in cold medium gray and dark gray, and there is extremely weak color contrast between cold gray and warm gray, which just distinguishes the spatial relationship between the characters and the background, but it will not destroy the overall gray tonality.

When printing, the artist controls the thickness of each layer of ink, so that the gray of the bottom layer can penetrate to the surface layer weakly, resulting in a subtle color overlapping effect, so that the gray tone will not appear monotonous and rigid. The gray levels with different tendencies are intertwined, forming the sense of alienation and mental distress of urban characters, and the viewer can feel the inner emotional tension of the characters from the gentle gray tone. The creative way of gray color matching broadens the expression range of copper plate color matching technology, and also proves that gray tonality can also have rich color levels, but these color levels are hidden in subtle tone differences, which need the viewer to calm down and slowly experience.

4.4. The development of gray texture under the comprehensive techniques

Modern and contemporary copperplate prints emphasize more and more the integration of techniques. Artists combine various techniques such as soft wax, syrup, engraving, and so on, and use different techniques to generate gray with different textures, which enriches the expression of gray language. Different textures of gray produce contrast in the picture, which can distinguish different objects and convey more complex emotions.

Xu Baozhong’s “Grass on the Original” series is a typical practice of expanding the gray texture with comprehensive techniques. The work shows the natural features of the northern grassland, and the creator uses the flying dust technique to make a delicate and even medium gray to show the open grassland ground, and the flat gray conveys the sense of vastness of the grassland. Soft wax is used to transfer the texture of hay, and after corrosion, it forms rough and mottled dark gray, which is used to express the grass in the foreground. Irregular texture makes gray bring vitality to wild plants. Using the sugar water technique to make irregular light gray marks, which are used to show the clouds in the sky. The mottled feeling of flow makes gray have the effect of clouds.

Three different techniques have completely different gray textures, but they have different modeling and expression functions. The viewer can feel the quietness of the whole picture, and can also read rich levels from the gray with different textures. This creative way breaks the monotonous stereotype of gray and

proves that gray has rich and varied texture and personality. With the addition of comprehensive techniques, the gray tonality is no longer just a change of light and shade, but rises to the category of tactile texture. The technological characteristics of the copperplate media are also brought into full play, which opens up more possibilities for the contemporary practice of gray language^[4].

All in all, the application of gray tonality in modern and contemporary copperplate prints can develop the inheritance of traditional craft genes of copperplate media and meet the needs of contemporary artistic spirit expression. On the one hand, the gray tonality excavates the inherent potential of the copperplate technique itself, which changes the color expression of copperplate from the original black and white and high-saturation color printing to a more delicate and rich expression level. On the other hand, the technological characteristics of the copperplate medium endow the gray language with many means of expression, which makes it richer in texture and hierarchy. Contemporary copperplate creators can continue to enrich the field of gray tonality expression, organically integrate technological exploration with spiritual expression, and create more copperplate works with cultural connotation and ideological depth.

Disclosure statement

The author declares no conflict of interest.

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