An Analysis of the Visual Characteristics of Vertical Screen Images in the Era of Intelligent Media Audiovisual

Qin Qin

Jingchu University of Technology, Jingmen 448000, China

*Abstract:*In the era of intelligent media audiovisual, vertical screen images have gradually become the preferred browsing device playback mode for consumers. Taking clarifying the visual characteristics of vertical screen images as a breakthrough point, promoting visual innovation in vertical screen images can provide consumers with a more comfortable and effective visual experience. In view of this, it is necessary to recognize the differences in narrative space between vertical and horizontal banners, the strengthening effect of narrowing narrative space by vertical banners on gaze, and the normative role of audio-visual language transformation in vertical screen image production. The production and innovation of vertical screen image content should grasp the production characteristics and pay attention to visual direction and spatiotemporal integration.

Keywords: Vertical Screen Image; Mathematical Intelligence; Content Production

1. The creative elements of scene scheduling in vertical screen image space

Essentially, scene scheduling is an appropriate adjustment of the positional relationship between the performer and the camera. When scene scheduling is applied to video shooting, it emphasizes the creator's control ability over complex scenes, including the performer's position, movement path, camera movement trajectory, the relationship between the performer and the frame space, camera angle, and other scheduling abilities, and integrates them into a complete and orderly scene scheduling plan.

1.1 The difference in narrative space between vertical and horizontal frames

The display ratio of vertical frames is usually 9:16 or 3:4 in the vertical direction, with the vertical space of the frame extending upwards or downwards, while traditional horizontal frames have a wider display ratio in the horizontal space.

Compared to the scene scheduling of a single shot, the frame space on both sides of a vertical frame is narrower, which has certain limitations in horizontal visual presentation. Based on shooting experience and the characteristics of the vertical frame composition, the design concept of the lens needs to be updated to strengthen the visual sense of space from the shooting angle and camera scheduling. The vertical frame is more suitable for shooting vertical spatial images, with the protagonist as the viewpoint character. Creators use different scene and viewpoint lens switching to display the relationship between characters and space in the vertical space viewpoint direction, which is more suitable for expanding spatial depth and depicting the personality characteristics of a single character.

1.2 Narrowing the vertical frame to enhance the narrative space and enhance the gaze effect

Compared to the horizontal spatial visual effect, the horizontal spatial range of the vertical frame shrinks towards the visual center point. The degree of "trade-off" in the internal space of the frame dominates the primary and secondary relationship of audio-visual elements, making it difficult for multiple character roles to coexist with the corresponding background environment in a narrow narrative space. But in a narrower narrative space, the individual characteristics of the main character are more prominent, which can narrow the visual distance with the audience and weaken the horizontal spatial connection between the main character and the background environment.In vertical frames, the focus of composition is on simplifying elements and compressing visual presentation space. At half the size of the frame, the focus of the gaze is selected on 1 to 2 characters, and the lens tracks the close-up image of the subject, emphasizing the facial expressions and emotional communication of the subject.

The narrowed horizontal visual space allows the audience to focus on the central point of the image at the visual level. To ensure that the central content of the picture captures the audience's attention in a very short period of time, it is necessary to require content producers to

design visual elements within the first 1-10 seconds of the work to attract the audience's attention. Therefore, compared to horizontal spatial visual effects, vertical frames are more suitable for depicting the psychological perspective of a single character and the intimate relationships of a small number of characters, presenting a "small" rather than "grand" narrative scene.

1.3 Audio Visual Language Reform Standardizes Vertical Screen Image Production

The interactivity and sociality of vertical screens are important characteristics of vertical audio-visual language. Deep space emphasizes the integration of photography machines and photographers, making machines an extension of human orientation. Immersive subjective perspectives are gradually replacing traditional objective perspectives, achieving the integration of lens and human eye perspectives, and strengthening the extension of subjective visual axis in the visual space. When a vertical screen lens simulates the movement path of a subjective perspective, capturing the moving image using the visual axis of the human eye as the vertical line of the vertical space will become one of the characteristics of the audio-visual language of vertical screen images.

Vertical screen composition breaks the traditional landscape aesthetic paradigm. The changes in visual factors such as composition, scenery, and lens angle of vertical screen images reconstruct the internal spatial framework. The basic composition principles of audio-visual language carry the transmission of information and emotions in the picture. However, based on the perspective of French Impressionist painter Mattis on the composition of images, "composition is aimed at expressing narrative images, so different narrative images will have different compositions.". The most commonly used shooting methods for vertical screen images are frontal close-up and first person subjective perspective shots, where frontal close-up equals listening to "me"; First person perspective=looking with "you". The most distinctive feature of vertical screen image composition is the "Point of View" composition[1].

2. Production and Innovation of Vertical Screen Image Content

2.1 Vertical screen image production features

Compared to the grand narrative features presented by landscape images, vertical short videos tend to be more lightweight and entertaining in content creation, forming a two-way communication mode between media and audiences. The functional design of the APP strengthens the linkage between content production and audience users, while cultivating users' content preference attributes and interactive forms in a "cultivation system" style.

Integrating the vertical frame and editing features of short and micro videos, while subversively utilizing the audio-visual language characteristics of traditional film and television dramas. The content shooting and presentation form are both vertical screens, and content producers design "explosive points" based on user viewing habits and user psychology to attract users to stay on the playback interface and enable real-time likes, comments, and favorites of the watched content. Each video takes approximately 5 minutes and can be produced as a single episode of independent content or as a collection of content with plot connections. How to efficiently highlight the clear directionality of vertical screen audio-visual language and its role in vertical screen short videos, content producers need to continuously cultivate and innovate the artistic expression of vertical screen images in terms of lens language, content mode, and other aspects.

2.2 The visual turn and spatiotemporal fusion of vertical screen images

Henri Lefebvre, a renowned French philosopher and aesthetician, elaborated on the complex relationship between works and products in his book "The Production of Space", much like the "things" in time and space. The immersive dissemination of "things" is the opening of a spatial form centered on human communication to the boundaries of life, strengthening the interaction between humans and space.

In the vertical screen mode of dissemination, "objects" are equivalent to vertical short video works, and the content and interaction forms presented by vertical screen images are centered around human communication points, strengthening the audience's immersive communication form when appreciating "objects". The audience can enter the media screen for internal and external interaction without additional operations, and the automatically played short videos extend the audience's immersion time.

Famous scholar Zhang Ali mentioned in his article "New Quality Productivity is a New Opportunity for the High Quality Development

of Chinese Film and Television" that "New quality productivity has opened up a new track of film and television technology and content innovation. The core essence of developing new quality productivity in film and television is film and television technology innovation, and using technological innovation to drive innovation in film and television content production is a new driving force and trend for the high-quality development of Chinese film and television."[2]

The new business model represented by AIGC (Artificial Intelligence Generated Content) poses a huge challenge to the traditional film and television industry and audio-visual language, even directly subverting the redefined concept, function, and visual editing thinking of video creation. Video creators simulate the perspective of intelligent handheld cameras to create a sense of participation and immersion. Vertical images are widely spread through the vertical screens of smartphones, and "instant messaging" is presented in various ways both inside and outside the screen.

3.Conclusion

The aesthetic paradigm of vertical screen images in the era of intelligent media audiovisual meets the needs of mobile media for scenes, and the development of content updates and cross screen innovation must adhere to the improvement of content quality. On the basis of the traditional film and television industry, we will deeply explore the technical level, develop high-quality creative vertical screen works, and focus on exploring innovative ways of vertical screen imaging in audiovisual aspects and vertical screen creative narrative thinking. Vertical motion images represent a new aesthetic that fits the aesthetics of the times. Regardless of the visual shift and media technology iteration and upgrading of vertical motion images, the content creativity of vertical motion images is the core development point of the era of intelligent media audiovisual.

In the new media industry, video content producers should focus on the current spiritual and cultural needs of the people in order to seize the latest traffic in the transformation of traditional and new media communication methods. They should systematically reconstruct the value framework of vertical screen images, deeply explore efficient expression methods that closely align the content and form of vertical screen images with the spiritual and cultural needs of the people, thereby enhancing the commercial value of vertical screen images and achieving the transformation and upgrading of media technology.

References

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