

EXPLORING THE RISE OF 3D DIGITAL VISUAL ART IN RAP ALBUM COVER DESIGN: A CULTURAL AND TECHNICAL ANALYSIS

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ABSTRACT

This paper studies the relationship between rap album cover design and 3D digital visual art. The visual symbols produced by using 3D technology can convey realistic and imaginative visual images, which is in line with the cultural characteristics of rap music. As a music form full of personality and innovation, rap music is in line with the cultural and aesthetic trends of young people. closely related. Applying 3D digital visual art to the album cover design not only increases the visual impact and innovation, but also creates a stronger resonance and connection with the target audience. Therefore, with the development of technology and culture, we can expect a deeper interaction and innovation between rap album cover design and 3D digital visual art.

Keywords : 3D digital visual art, rap music album, visual symbols

INTRODUCTION

This paper is an academic study aimed at deeply exploring the application and influence of 3D digital visual art in rap album cover design. Combining the perspectives of culture and technology, the research is based on visual semiotics, aiming to reveal the cultural background and technical factors of the rise and development of 3D digital visual art for the design of rap album covers. By analyzing the development process and trend of 3D digital visual art, exploring its relationship with rap album cover design, interpreting the symbols and meanings in the design, and analyzing its influence on the design effect, we can gain an in-depth understanding of the role of 3D digital visual art in rap album cover The role and influence of design, promote innovation and development in this field, and bring new design ideas and artistic expressions to the industry.

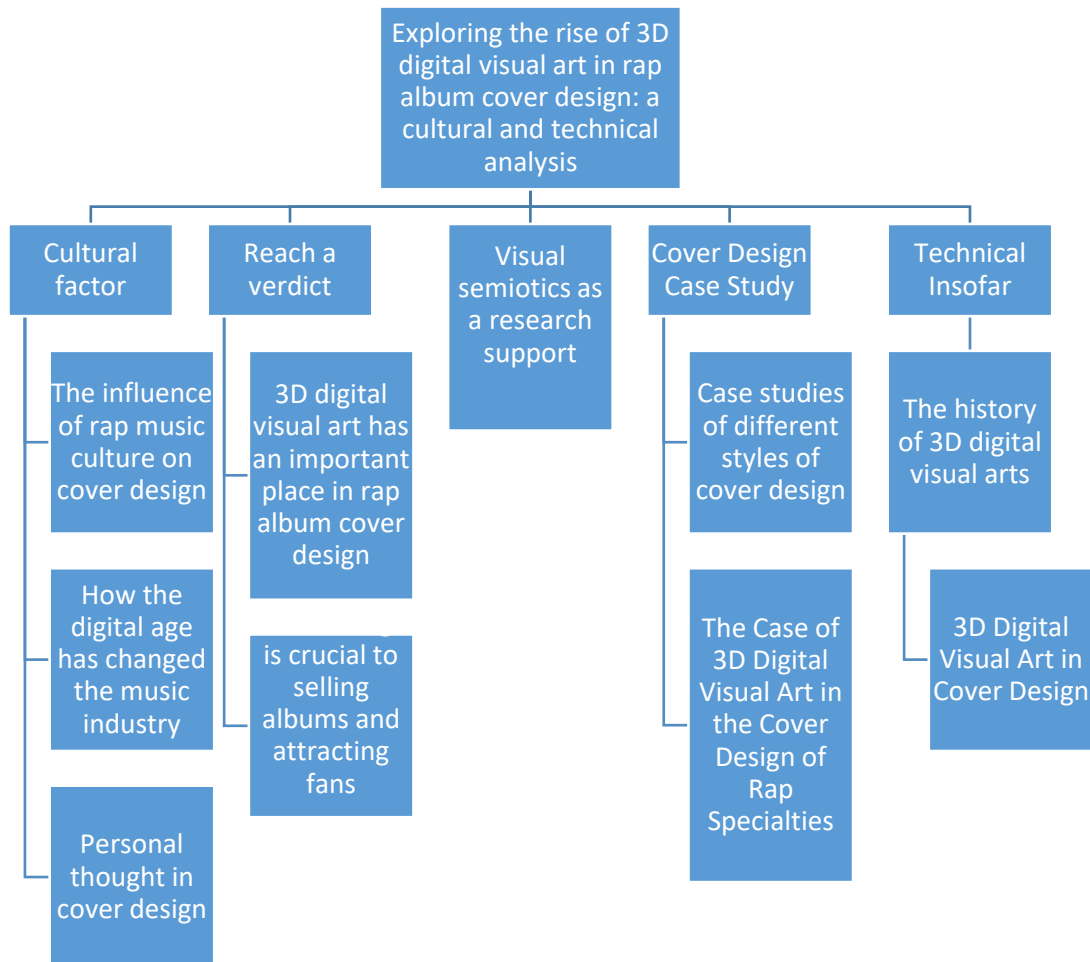
RESEARCH OBJECTIVES

By analyzing cases and examples, the study reveals the practical application of 3D digital visual art in rap album cover design and its impact on design; at the same time, it explores its cultural significance, including conveying specific cultural values and personal images, It also studies the influence of the cultural identity and resonance of audiences and listeners; in addition, it also analyzes its technical characteristics and innovations, including the application of digital modeling, rendering technology and animation effects, and how to express musical themes and emotion.

METHODOLOGY

The research includes steps such as literature review, album case study, design element analysis, questionnaire and data analysis, aiming to reveal 3D The rise and influence of digital

visual art in rap album cover design, and explore the cultural meaning and symbol selection through the perspective of visual semiotics.



RESULT

1. Introduction to visual semiotics and its role in design

Visual semiotics is a subject that studies symbols and symbolic meanings in images and their relationship with culture, society and individuals, and plays an important role in interpreting and conveying the meaning of design works in design. By analyzing the selection and application of symbols, images and visual elements, visual semiotics helps designers deeply understand and express the themes, emotional and cultural connotations of design works, as well as their influence on the emotional resonance and triggering methods of viewers.

2. The characteristics and commonalities of rap music and 3D digital visual design

Rap music and 3D digital visual design are characterized by emphasizing creativity and personalized expression, and attracting the audience's attention through unique forms and contents. They jointly pursue innovation and artistry to express emotion, thought and cultural significance, shape personal images and arouse the emotional resonance of the audience.

3. Comparative analysis of artist cases

Travis Scott's "Days Before Rodeo" (Figure 1) and "ASTROWORLD" (Figure 2) album cover design, through 3D digital visual design and graphic illustration design comparison

"Days Before Rodeo" is designed with graphic illustrations, showing rich details and use of color to create a unique visual effect. In contrast, the 3D digital visual design of "ASTROWORLD" uses computer-generated 3D models and rendering technology to create

realistic and three-dimensional image effects, which have a strong visual impact and a sense of immersion. Through comparison, it can be found that 3D digital visual design has advantages in terms of fidelity, three-dimensionality, visual impact and modernity. It fits with Travis Scott's music style and represents the development trend of modern technology and digital art.

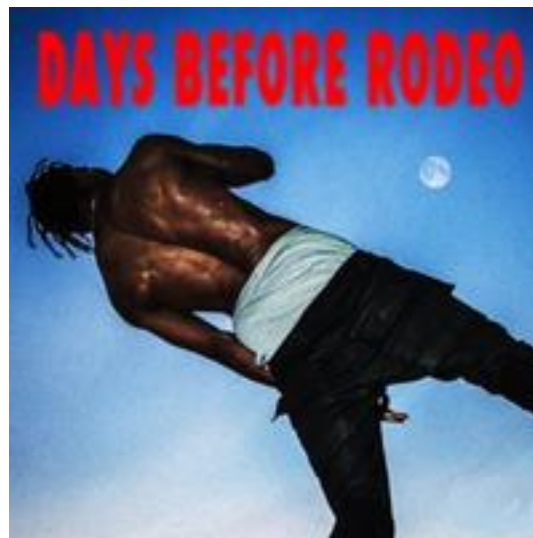


Figure 1 : I Travis Scott "Days Before Rodeo" <https://music.163.com>



Figure 2 : I Travis Scott "ASTROWORLD" <https://music.163.com>

4.1 Introduction to personal research works

Choose a rapper's album, and re-use 3D vision to design the album cover according to the ideas conveyed by the entire album.

4.1.1 Introduction of original works

SASIOVERLXRD is a rapper from China. Although he has debuted for a long time, he has not received the attention of the audience until the past two years. The album "CHENG DAOLIANG" (Figure 1) is named after the protagonist of the comic "Army Chicken". Through the dark tune and the image on the album cover, it expresses the anger towards the original family and social injustice, and at the same time heralds the coming of light.



Figure 1: SASIOVERLXRD "CHENG DAOLIANG" <https://music.163.com>

4.1.2 Reason for selection:

The original album cover has too little connection with the song. The tune of the whole album is: Although you are in the darkness, you also fight against the darkness at the same time, strive to work hard for the light, and finally rely on the efforts of SASI to obtain the light brought by hope. The inner seed breaks free from the shackles and finally blooms in the light.

4.2 Design process and introduction of researchers

When designing the album cover, the researchers first chose the shackles and blooming flowers created with 3D modeling software as the main visual symbols, representing "darkness" and "light". And highlight dark and light visual elements by adjusting shape, size and detail, choose metal material and adjust its surface effect to achieve realistic effect. An edge lighting setup enhances the mood and emotion of the scene. In the final adjustment of the layout, for the "shackles" element, they mainly convey emotions through graphics and reduce the use of text to highlight the dark and depressing atmosphere; while for the "flower" element, they blend text with flashing elements to showcase the album. The name symbolizes the effect of clearing the clouds and seeing the sun.



First cover1



First cover2

QUESTIONNAIRE AND DATA ANALYSIS

5.1 Questionnaire survey:

This questionnaire is divided into three parts, the first part is personal information, the second part is the status quo of the audience's perception of rap albums, and the third part is the influence factors of 3D visual art design on the cover of rap albums . Most of the respondents this time are rap enthusiasts , accounting for 87.60 % , and the rest are rappers. Most people think that the use of 3D visual art design on the cover of rap album can enhance the uniqueness and visual appeal of the album, accounting for 4 7.11 % . Only a minority feel that the use of 3D visual art design on rap album covers does not enhance the uniqueness and visual appeal of the album at all .

5.2 Reliability analysis

The Cronbachs Alpha reliability test was carried out on the questionnaire. If the value is higher than 0.8, the reliability is high; if the value is less than 0.6, the reliability is not good. The Cronbachs Alpha reliability test was carried out on the questionnaire. The statistical results are shown in Table 1. All scales of the questionnaire are greater than 0.7, indicating that the data reliability is high and can be used for further analysis.

Table 1 Reliability Analysis

Dimensions	number of items	Cronbach's alpha
space and perspective	5	0.889
dynamics and movement	6	0.912
creativity and individual expression	5	0.899
Emotional resonance and attraction	6	0.912

5.3 Validity analysis

The validity analysis of independent variable and mediator variable scale was tested by KMO and Bartlett ball test . If the value is higher than 0.8, it means that the research data is very suitable for extracting information, and the validity is very good; if the value is less than 0.6, it means that the data validity is average. The test results are shown in Table 2. The KMO result is 0.945 , which is greater than 0.6, and $p < 0.001$ in Bartlett 's sphericity test, indicating that there are correlation factors among variables, which are suitable for factor analysis .

Table 2 KMO and Bartlett ball test results of the scale

KMO value□		0.945
Bartlett test for sphericity	Approximate chi-square	2453.328
	df	231
	p value	0

RESULT

3D digital visual art can produce more three-dimensional, vivid and eye-catching visual effects in the design of rap album covers, and bring a more realistic and immersive visual experience to the audience through computer-generated three-dimensional models and rendering technology. In contrast, traditional graphic illustration design is more inclined to graphic expression, lacking a sense of three-dimensionality and dynamics. 3D digital visual art creates unique visual effects through the selection and expression of symbols and image elements, such as realistic objects, light and shadow effects, and dynamic scenes, which match the style and theme of rap music. It shows the artist's personal image and cultural identity, arouses the audience's emotional resonance, and reflects the influence and innovation of technology and digital age on music cover design. The theoretical knowledge of visual semiotics helps to interpret symbols and meanings in cover design, understand cultural identity and values, and promote communication between designers and audiences. By combining the theories of 3D digital visual art and visual semiotics to create unique and eye-catching visual effects, promote the innovation and development of rap album cover design.

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