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THEORETICAL
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artificial intelligence, which is really related to automation of the creative process, relies on the instructions of a person to work, who sets the direction of the generation of creative material. Artificial intelligence performs a limited number of tasks and works only from commands given by a person, using technology and creating new ones. Artificial intelligence is not able to feel and create a sensual view of the surrounding world, which is expected and desired in its artistic reinterpretation and poetically inspired interpretations.

The interaction of the artist and the artistic material occurs in the form of sign communication and, in fact, represents the interaction of the artist and the Absolute, which, as is known, is impossible in relation to piece-meal intelligence, for which, in principle, it is impossible to embody spiritual activity, the specificity of which is to reflect reality through imagery.

Thus, in rethinking the relationship between artificial intelligence and the creative process, in which works of stage art are born, the priority at all levels of the organization of creative material is reserved for the artist, creating new art from his own emotions and feelings, life experience, a look at his own defined meanings of being, fixing the intrinsic value and independence of the sphere of artistic ideals as works of art.

CHARACTERISTICS OF STANDARD SOLUTIONS FOR BLACK METAL BAND LOGOS

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Abstract. The study is devoted to the analysis of the logo design of black metal bands. The main attention is paid to the features of their stylistics and compositional and graphic solutions. The paper identifies groups of standard solutions for black metal band logos, describes their main features and components, and defines their main characteristics.

Keywords: black metal, logo design, standard solution, musical group.

Introduction. Black metal is one of the subgenres of extreme metal, characterized by a special atmosphere, radical ideology, raw sound and recognizable aesthetics. It was born in the 1980s, and reached its true development in the 1990s. Today, this direction in music also remains relevant. The basis of the ideology and themes of black metal are: anti-religion (especially anti-Christian motifs, which are the central theme

of classical Norse black); Satanism, paganism, mythology, mysticism, sometimes nationalism or ideas of self-destruction; misanthropy, individualism, and alienation from society and the real world. The basis of the visual aesthetics of this musical direction are: coloring in black and white tones of the face, often in order to look like a dead or demonic character; dark clothing, leather goods, spikes and other accessories made of metal; the use of various pentagrams, images of inverted crosses, demonic symbols, etc.; the most common motifs in photo shoots are images of the forest, Winter, ruins, cemeteries; black and white photos are relevant. The logos of black metal bands are one of the most expressive visual elements of the genre. Their aesthetics reflect the general atmosphere of music: cold, chaos, darkness, death and disregard for standards.

Purpose and objectives of the study. The aim of the work is to identify standard solutions for black metal band logos, identify and characterize its main features and components.

Research results and their discussion.

At the first stage of the study, the analysis of literature sources on the chosen topic was carried out [1-7]. Fergal T. Fitzpatrick's study [2] examines the visually enigmatic aesthetics of band logos in the extreme music genre of black metal. It is clear that the illegible black metal logo often supports the use of satanic, occult [hidden], pagan ideograms and borrows a lot from the cult-inspired forms of black letters. Often graphically complex letter shapes in the logo of black metal bands add visual consistency, symmetry and proportion, which is quite unique in terms of identity design.

In the article, Mark Riddick [3] states that extreme metal, perhaps more than any other musical genre, adheres to a strict and clear visual code that accurately conveys to listeners what they are involved in. "The genre seems to require a certain style of logo that the listener can identify with"

Sułkowska Alicja [4] analyzes the importance of aesthetic and stylistic aspects in creating the stage presence of black metal musicians, as well as examines from the point of view of media and Cultural Studies other components related to the visual side of the genre, such as chaos, nature, violence or the use of four elements in building a genre atmosphere.

The Article [1] analyzes the history of the development of 10 well-known Ukrainian black metal bands and provides images of their logos.

Szpajdel Christophe [6] presents hundreds of original logos of black metal bands developed by the author, each of which re-conveys the power of this musical genre. This is especially important given that Szpajdel Christophe is the author of a large number of iconic logos of black metal and heavy metal bands.

Based on literary sources and analysis of more than a hundred logos of black metal bands in Ukraine and around the world, their main standard solutions are identified and characterized. Based on the results of the conducted research, it was determined that the typology of logos of black metal bands can be quite diverse, taking into account the specific aesthetic and symbolic elements that are used to convey a certain message or concept. The logos of black metal bands are one of the most expressive visual elements

of the genre. Their aesthetics reflect the general atmosphere of music: cold, chaos, darkness, death, disregard for Standards, and so on. Based on the analysis of a significant number of logos of bands working in the style of black metal, their main compositional and graphic features, typical symbols and the most common standard solutions are highlighted.

It should be noted that the most common logos for black metal bands are combined type logos. Also highlighted are text type logos, where Gothic stylized and deformed fonts are often used. Icon type logos are the least common among the logos of bands of this musical direction. However, font logos and combined logos, which are unreadable, are actually perceived as graphic signs. In the process of research, typical features of black metal band logos were identified, which are described below.

Black metal band logos often use distorted Gothic fonts or elements thereof, giving them a majestic and mysterious look. Logos often feature fonts where the letters are broken, interrupted, or even partially replaced by various other symbols or designs. The fonts often look aggressive, and sometimes so complex that they are difficult to understand without context. Logos with distorted, aggressive fonts, sharp, jagged lines, or spikes often look illegible and symbolize chaos, destruction, and aggression. The font style (typography) of Logos is often unreadable, and their letters are so detailed, fancy, or distorted that they are difficult or even impossible to read without first knowing (Fig. 1). This is like a kind of "sacrament" that is intended only for initiates. Also, the letters of black metal logos often imitate natural and organic forms such as branches, roots, cobwebs, shadows, blood, etc. and look like a fusion of living and inanimate objects (Fig.2). Most of the logos of black metal bands are symmetrical along the vertical axis, which gives a sense of order in chaos and gives symbolic power as a coat of arms (Fig.1, Fig. 2 and Fig. 3). Most of the logos of black metal bands have monochrome color schemes, usually in black and white, which enhances the atmosphere of darkness and mysticism, where a black background is combined with white or silver letters to achieve contrast and expressiveness.



Fig. 1. Logo of the band "Darkthrone"
(Sweden)



Fig. 2. Logo of the band "Wolves in the
Throne Room" (USA)



Fig. 3. Logo of the band "White Ward"
(Ukraine)

The logo of the combined type of black metal groups is characterized by the use of various symbolic graphic elements:

- inversion of Christian symbols typical of anti-Christian groups: inverted crosses, pentagrams, goats (Baphomet), Satanic symbols, etc. (Fig. 4, Fig. 5);
- pagan and occult themes used in pagan/atmospheric black metal logos: runes, pagan totems, symbols of The Sun, Moon, trees, ancient signs, etc. (Fig. 6, Fig. 7);
- natural mystical motifs are often woven into the logo or used as separate emblems: black crows, snakes, trees, skulls, stars, moon, mountains, etc. (Fig. 8, Fig. 9).
- archaic or gothic elements: stylized gothic fonts (Fig. 10, Fig. 11), old Slavonic symbols (Fig. 6, Fig. 8), Latin or Scandinavian inscriptions.



Fig. 4. Logo of the band "Impaled Nazarene" (Finland)



Fig. 5. Logo of the band "Dark Funeral" (Sweden)



Fig. 6. Logo of the band "Dub Buk" (Ukraine)



Fig. 7. Logo of the band "Nokturnal Mortum" (Ukraine)



Fig. 8. Updated logo of the band "Nokturnal Mortum" (Ukraine)



Fig. 9. Logo of the band "Acherontas" (Greece)



Fig. 10. Logo of the band "Vargsang" (Ukraine)



Fig. 11. Logo of the band "Gorgoroth" (Norway)

The visual style of black metal bands is mainly aimed at making the band look like something superhuman, inanimate, out-of-the-world. Often bands of this musical direction deliberately avoid clear, beautiful design, choosing instead "ugliness", randomness, dirt, manual untidy work (especially in the underground). The logo not

only symbolizes the black metal band, but also separates it from the mass audience, makes it the face of a closed culture, contributing to its sacred isolation and isolation of its representatives.

Conclusions. The analysis of logos of black metal bands in Ukraine and around the world is carried out. Typical solutions of their text and graphic elements are identified and characterized. Typical examples of compositional and graphic solutions for logos are given. The provided description of the typical logo solutions of black metal bands reveals not only their visual style, but also what they want and can convey through their symbols and color solutions. It is shown that the logos of bands of this musical direction are usually complex, aggressive and mystical, which perfectly reflects the very essence of the black metal genre.

References

1. Shevchenko R. 10 znakovykh hurtiv v ukrainskomu blek metali. [Shevchenko R. 10 iconic bands in Ukrainian black metal] URL: <https://www.neformat.com.ua/articles/blackmetal-in-ukraine.html>. [in Ukrainian]/
2. Fergal, T. Fitzpatrick. Black Metal Logos. An Examination of the Aesthetics of Extremity. URL: <https://publications.scss.tcd.ie/theses/diss/2010/TCD-SCSS-DISSERTATION-2010-025-ABSTRACT.pdf>. [in English].
3. Riddick, Mark. (2008) Logos From Hell. Mark Riddick. 109 p. [in English].
4. Sułkowska, Alicja. (2019) "Chainsaw Gutsfuck" – black metal and the aesthetics of chaos. Ann. Univ. Pedagog. Crac., Stud. Cult. №11(3). P. 24-45. [in English].
5. Smialek, Eric. (2019) Getting Medieval: Signifiers of the Middle-Ages in Black Metal Aesthetics. In book: Medievalism and Metal Music Studies: Throwing Down the Gauntlet. P.35-55. DOI: 10.1108/978-1-78756-395-720191005. URL: (https://www.researchgate.net/publication/335663253_Getting_Medieval_Signifiers_of_the_Middle-Ages_in_Black_Metal_Aesthetics). [in English].
6. Szpajdel, Christophe. (2010) Lord of the Logos: Designing the Metal Underground. Gestalten. 272 p. [in English].
7. The Beauty and Total Illegibility of Extreme Metal Logos. URL: <https://www.wired.com/2015/10/the-beauty-and-total-illegibility-of-extreme-metal-logos/> [in English].