МИСТЕЦТВОЗНАВЧИЙ ПОШУК

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Concepts of optical art in contemporary wood plastic

Анотація. Концепції оптичного мистецтва у сучасній дерев'яній пластиці. У статті проведено огляд засадничих концепцій становлення оптичного мистецтва. Перераховано ключові ідеї розвитку оп-арту та важливість популярності стилістики оптичного мистецтва. Стаття демонструє значущість впливу оп-арту на формування сучасної дерев'яної пластики з використанням оптичних прийомів. Дане дослідження має на меті розширити сучасне уявлення про абстрактну пластику в дереві та позбавити її традиційної канонізації. Розглянуто психофізичний вплив оптичних ілюзій на глядача. З'ясовано вплив технологічного прогресу на формування оптичних прийомів в візуальних практиках, визначено їх специфіку та трансформацію у різних сферах мистецького процесу. Простежено цінність синтезу оп-арту та кінетичного мистецтва у створенні різноманітних візуальних ефектів в сучасній дерев'яній пластиці. Проведено аналіз останніх публікацій, який підкреслює зацікавлення науковців даним напрямком. Зокрема, з'ясовано особливості застосування прийомів оптичного мистецтва в дерев'яній пластиці на прикладі творчості молодшої генерації львівських художників, випускників кафедри художнього дерева ЛНАМ. Водночас, підкреслено важливість подальших досліджень маловивченого синтезу оптичного мистецтва та дерев'яної пластики.

Ключові слова: оптичне мистецтво, візуальні ефекти, оп-арт, дерев'яна пластика, абстрактна пластика, об'ємно-просторова пластика, оптичні ілюзії.

The formation of optical art movement began in the middle of the 20th century as a result of study of various perceptual effects. The distinctive specificity of op art enables to use its opportunities in wood plastic that simultaneously creates the problem of belonging of the author's projects to this or that movement in contemporary art. It is possible to observe the study and appearance of op art in Ukraine beginning from 1960's-70's that had a negative influence on stylistic peculiarities of the movement. The absence of translated studies of foreign authors and the lack of material basis make Ukrainian art environment isolated that is one of key aspects of the problem of presentation and establishment of our art product within the frames of actual art process. The study of the present topic demonstrates its insufficient elaboration in Ukrainian art criticism.

However, in recent years, significant progress in the development of artistic practices is discernible, which often use stylistic techniques and methods of op art. An access to the world art process has had an important role, through cooperation with international galleries that certainly broadened the horizons of the young generation of the artists, who are actively integrating into the international cultural process. The number of art objects, which correspond to the main international tendencies and acquire a great sociocultural importance, is increasing, which is evidence of significant progress in formation of a new artistic thinking.

Analysis of recent studies and publications. Observing the process of development and establishment of basic concepts of optical art, it is confidently possible to speak about the existence of the movement among the new tendencies in the world artistic environment. In Ukraine, the subject of op art is scantily researched and is focused on graphic design mainly. Instead, optical illusions are used in theatres, performances, choreography and video art, in advertising and many other fields that underlines the versatility of op art stylistics. The problem of op art development in Ukrainian art was explored by V. M. Kosiv in his article Op Art in Soviet Ukrainian Poster: Abstraction and National Identity. Analysing the appearance and development of op art stylistics in Ukrainian stage

poster of the late 1960's–1970's, in particular in the context of the visualization of national identity, the author gave us an opportunity to understand more deeply the sources and the main issues of op art in graphic design and the reasons for its popularity in the times of totalitarian regime [4, p. 46–53]. In the publication *Optical illusion in graphic design* (for example, posters Coca-Cola), N. Diadiukh-Bohatko and L. Andrushko also explore the phenomenon of op art in the field of graphic design, emphasizing the significance of using optical illusions not only in visual art, but also in the studies of visual perception by the leading specialists in the field of psychology and neurology. The impact of colour on emotional state of a human, who through observing a picture becomes an active participant of artistic dialogue [1, p. 92–96].

In their turn, I. Kuznietsova and O. Arbuzova in the article *Methods of using op-art*, found the possibility to use the techniques of optical art in interior design. In the course of their work, they analysed the main works of the op art movement and determined the principle techniques of using its basic elements: the technique of space arrangement, perceptual (cognitive) and statistic techniques (means of geometrically linear and simple geometric configurations of shapes) [5, p. 92–94].

An in-depth analysis of individual figurative and plastic stylistic features of wood plastic can be found in the article by Z. Chehusova. The study shows the main artistic achievements of Ukrainian artists and emphasis the significance of the specialty of art wood through the prism of the achievements of the graduates of Art Wood Department of LNAA [3, p. 479–486].

Objectives. The objectives of this article are in observation of key concepts, author's models and premises of optical art development in contemporary wood plastic. The task of the proposed publication is to represent as much as possible op art in different fields and movements of contemporary artistic process, as well as to open potential opportunities in creation of new visual art using the techniques of optical illusion. This is important to expand the notion of wood plastic and open its potential opportunities in the synthesis with optical art, as well as to emphasize the significance of the existence of Art Wood

Department in LNAA having no analogue in Ukraine.

Statement of basic materials. The first studies in the field of op art relate to the end of the 19th century. Yet in 1889, in the annual *Das neue Universum*, there was an article about optical illusions written by German professor Thompson, who, using black and white concentric circles, created an impression of motion on the plane: the wheels on the Thompson's pictures 'rotate' and 'shimmer'. However, there was rather scientific study of peculiarities of visual perception than art. [9]

But op art got a worldwide popularity in 1965 after New York exhibition *The Responsive Eye* at the Museum of Modern Art, where about 75 artists from ten different countries were represented, who exhibited more than 125 pictures and constructions. William Seitz, commenting on the exhibition, said: 'Unlike most previous abstract painting, these works exist less as objects to be examined than as generators of perceptual responses, of colors and relationships existing solely in vision; of forms, presences and variations often entirely different from the static stimuli by the artist.' [11]. The important role in op art development has been played by the exhibition *Arte Fiera-77*, taking place in 1977 in Bologna, where the works of the artists of this movement were demonstrated: V. Vasarely, E. Fints and others. Op art artists in tight relation with kinetic art are often unite and act incognito: H group (Padua), T group (Milan), Zero group (Dusseldorf), Searches for visual art group, headed by V. Vasarely that gave an initial impetus for the op art movement [9].

Op art uses various visual illusions based on the features of perception of planar and spatial figures. The movement continues the rationalistic line of modernism. It goes back to the so-called 'geometrical' abstractionism, the representative of which was V. Vasarely (from 1930 to 1997 worked in France) – the founder of op art.

Op art has no aim to represent the reality. The artist does not try to depict anything that we know in real life. Vice versa, this is more like abstract art, in which the content, motion and shape are prevailing, where the work is not created accidentally. The elements used are thoroughly selected for the achievement of maximum effect. To make illusion

work, every colour, line and shape should favour general harmony of composition.

The perception of the work based on optical illusion exists not only on the canvas, but in reality and in the spectator's eyes and head that helps to find some rules of visual perception, that is why psychologists paid great attention on them. When viewing real objects, illusions occur seldom. Thus, to find hidden mechanism of human perception, it was necessary to place an eye in unusual conditions, make it solve atypical tasks [2, p. 344–374].

Op art tries to reach optical effect with the help of psychophysical impact on spectator, to force the motion of motionless objects in a plane or space. The subject of perception remains at this motionless, as well as the object. It is explained by the fact that optical illusion, which is contemplated in composition, is built on simultaneous motion of several independent objects and requires intense concentration of visual attention. There is a necessity to replace classical perspective with a new optical space – the virtual one. Because of motion creating on multifunctional virtual level, planar perception of the work is broken and the sense of new dynamic space appears. [2, p. 344–374].

The main task of op art is to 'deceive an eye', provoke it for a wrong reaction, call an 'non-existing' image. Visually contradicted configuration creates an insoluble conflict between actual and visible form. The studies by psychologists demonstrated, for example, that the eye always tries to organize chaotically scattered spots into a simple system (gestalt). In optical painting, vice versa, simple same-type elements are placed in the way to disorient the eye, not admit the formation of coherent structure. Thus, in the Viktor Vasarely's picture *Zau-Dzeta* (1964), quadrates and rhombuses are constantly rebuilt by the scheme of Greek letters, but do not finally combine in a certain configuration. In other Vasarely's work – *Supernova* (1959–1961), two same contradicted shapes create the sense of flash that is moving. The grid covering the surface is separated and freezes in some time, and the circles written in the quadrates disappear and reappear in different points. The plane is continuously pulsing, appearing in immediate illusion and closing again in continuous structure. The name

of the picture creates the idea of explosions of cosmic energy and the birth of supernovas. Constantly oscillating surfaces of the pictures put the perception into a blunt angle, causes visual shock. Spectator's nervous system was especially strong beaten exactly on such exhibitions, where art objects moving, illuminating, reflecting the light were exhibited. Sometimes, the visitors reacted on 'artistic illusion' even with dizziness and fainting [9].

Op art representatives stated that their works induce the spectator to active participation in the creativity, hence, this is an eye to generate a shape, transform the 'material' into 'energy' of visual image. In this, op art closes with mass art: reaching the forms of mass spectaculars and attractions is especially vivid in spatial constructions of op art: the systems rotating, shining, transforming; shimmering planes that move, etc. The findings in this field are by Y. Agam, Jesús Rafael Soto, C. Cruz-Diez, B. Riley, J. Albers, J. Le Parc, J. Stin, J. Steel, M. Heitz, O. Piene, G. Ucker, G. Alviani and others. For some time, their techniques were successfully used in decoration of discos, commercial exhibitions, sound and light shows and other mass events, that made it possible to embody fantastic constructions in the reality [9].

The relevance of optical art movement in Ukraine can be observed just from the end of the 20th century. Wide opportunities of op art have found their application in industrial graphic, poster, fine arts. Lviv National Academy of Arts became an important centre of creating new tendencies in Ukrainian art, where the experience of professional teachers is successfully combined with ambitious goals of young artists. In particular, it is safe to note Art Wood Department, which was able to educate many professional artists. Until recently, the main core of the Department was a member of the National Union of Artists of Ukraine, professor of LNAA Ihor Stefiuk. His author's conception of plastic includes the filling of imagery with sacred 'dematerialized' content, poetry and generalization of forms, which exclude naturality and sensibility in his sculptures. They are accepted as paraphrases in the styles of neo-constructivism, lyrical abstraction, where the author use innovative techniques, masterfully combines various volumes, planes and different species of wood (the series *Figures*, series *Objects*,

1990's; polyptych Limited space, 1993–1995; *Vinus not sleeping*, *Vinus not sleeping*, 1998) [10].

The formative range of I. Stefiuk is quite wide: art objects, interior and exhibition easel and decorative sculpture, relief layers – from subject decorative to almost entirely abstract, which are born, to the author's deep conviction, 'in broad visual opportunities of wood, its capacity not only to decorate or narrate, but call deep associations, express spiritual and aesthetic ideas of the time. [6, p. 323].

The strongest are those sign and symbolic works of I. Stefiuk that he constructed in unity of detached geometrical and rhythmical forms, where he, on the one part, totally depart from the subject, and, on the other part, reaches a sacral sounding of their deep meaning [7, p. 36].

His philosophical vision of art wood and new radical approach in modelling volumetric and spatial plastic I. Stefiuk invested in educating the future generation. That is why it is important to mention the new generation of artists, who have managed to transform their obtained experience and have already declared themselves not only in Ukraine but also abroad: A. Savchuk, N. Symotiuk, D. Shavala, Y. Titenkov. These are the graduates of Art Wood Department of Lviv National Academy of Arts, who actively work with wood plastic and successfully combine the traditions of the Lviv Art School with their innovative outlooks. Their volumetric and spatial compositions and wood plastic absorbed a synthesis of the brand new materials opening the broad opportunities for shaping. Due to the findings demonstrated by the young artists in their works, the boundaries between sculpture, architecture, painting, optical and kinetic arts are disappearing that makes it possible to take wood plastic to a whole new level. In their works, the artists put accents on natural properties of wood as traditional artistic material, while at the same time reveal to the spectator its new visual-aesthetic and plastic possibilities [8].

That means that the terms 'wood plastic' and 'wood sculpture' are, to some extent, losing their traditional definition, offering a new prism of vision of volumetric and spatial art objects, which meet the contemporary artistic tendencies. At the same time, the artistic movements in this direction happen somehow spontaneously; there were no clearly defined general scientific and

analytical models yet that indicates the necessity of formation of certain theoretical basis and the development of optical illusion art in Ukraine.

Conclusions and study perspectives. Summarizing the influence and historical aspects of optical art development, it is possible to say with certainty that there are no clear answer and criteria for marking the movement with certain framework, as there are lots of different factors, each of which contributes its elements, to some extent, for optical illusions. It is not only about a visual component, but also about an ideological one that together expand the area for experiments.

This way, it can be said that op art has not lost its relevance and is used in various arts, having found its niche in wood plastic also. A small group of LNAA graduates has been able not only to save the traditions of the Lviv Art School, but successfully transform a synthesis of op art and volumetric and spatial sculpture that formed the appearance of the brand new vision in the field of wood plastic. Thanks to the technological process, it is possible to apply stylistic peculiarities of optical art not only in wood plastic but in many other fields. Computer technologies has enabled the application of optical techniques in the projects that need neither stage, no large halls, because there is a possibility to create projections on any object. It is due to this progress, the artist gets an opportunity in any place, at any time to realize and visually demonstrate his ideas that makes it possible to create a variety of visual images in different spheres of life of modern person.

The theoretical study regarding the definition of stylistic peculiarities of optical art in wood plastic and its significance in the art of today's global world is evidence of the existence of various conceptual approaches and reveals new vectors of representation of the art of the third millennium. Therefore, it should be noted that artistic changes happening under the influence of modern technologies need more attention and deeper exploration of little-studied phenomenon of optical art in Ukraine.

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ANNOTATION

Nazar Symotiuk. Concepts of optical art in contemporary wood plastic. The article reviews the basic concepts of the formation of optical art. The key ideas of op-art development and the importance of the popularity of the style of optical art have been listed. The article demonstrates the significance of the influence of op-art on the formation of modern wood

plastic with the use of optical techniques.

This study aims to broaden the modern view of abstract wood plasticity and deprive it of traditional canonization.

The psychophysical influence of optical illusions on the viewer has been considered. The influence of technological progress on the formation of optical techniques in visual practices has been determined, their specificity and transformation in different spheres of artistic process have been determined. The value of synthesis of op-art and kinetic art in creation of various visual effects in modern wooden plastic has been traced.

The analysis of recent publications, which

emphasizes the interest of scientists in this direction, has been carried out. In particular, the peculiarities of application of methods of optical art in wood plastic on the example of creativity of the young generation of Lviv artists, graduates of the department of artistic wood of LNAA, have been determined. At the same time, the importance of further research of the poorly explored synthesis of optical art and wood plastics has been emphasized.

Keywords: optical art, visual effects, op-art, wood plastic, abstract plastic, three-dimensional plastic, optical illusions