The Polyfunctionality of Design Language in The Education System of The Design-Student

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ABSTRACT
This research work is devoted to the identification of functions carried out by design in life of society in general and a sense-creating role interpretation of design language in life of the individual that leads to the realization of the analysis necessity of a design role in the sphere of modern professional education. The design as the activity for esthetic properties designing of industrial products (“art designing”) and also as a result of this activity where there is an inseparable interdependent link of an esthetics and technologies is considered in this article. The esthetics defines a thing matter and technology-its form. The position occupied by design images in the structure of an urban environment is analyzed in this article. It is proved that design is the multifunctional phenomenon influencing on the formation of an art world view by means of a complex of specially chosen means of expressiveness (pictorialism). The central problem of this work is the analysis of symbolic function of design language as the special hierarchical system created not only for the satisfaction of utilitarian, but also esthetic requirements of society in general, and a person, in particular. It is claimed that the main informative means of design language are symbols as the most difficult class of sign formation. It is established that the application of symbols in the design system allows influencing the formation of a reality image in consciousness of the person (society) that leads to the significance understanding of correct values upbringing in the education of a future designer.

KEYWORDS
Design, city landscape, design language, city culture, symbol, symbolization

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Introduction
The architecture as the leading art shape forming a landscape of an urban environment represents an important part of modern culture. In the frames of native science it is considered from the point of view not only as the material

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surroundings for the provision of person or society existence but also as messages coded by specific language allowing people to be guided in physical and cultural space and "fixing the systems of concepts and values" [1, p. 47]. The city as the center of modern mankind life forms the special cultural environment creating and transmitting deep meanings of existence that is of interest of modern researchers within the design philosophy [2; 3; 4; 5; 6; 7; 8; 9; 10].

The relevance of the appeal to research of artistry origin issues in the architecture, to understanding of a design role in human lives (societies), to search problems of design language specific character and it is stimulated also by the fact that the design represents specific process of symbolization owing to what the symbolical nature of design language makes the most important epistemological and culturological problems in the study of meanings formation mechanisms and values in modern education of the design-student. Moreover, the existence of interest in the art sphere is caused by understanding of design in general, and the city landscape, in particular, as the complex object of research, besides, staying in dynamics, as universal determinants. It defines the system of spiritual coordinates in the city life orienting the subject in variety of esthetic values.

**Analysis of Design Language as A Multifunctional System**

In the basis of this work there is a study of the design language status in the educational system of modern technical university that causes the appeal to the functions’ analysis carried out by design in the life of younger generation in general and in the activity of the design-student, in particular. The particular interest is arisen by the consideration of existing design language opportunities as the valuable system used in the professional activity of a designer.

The concept of research is defined by the interpretation of design language as a special form of a symbol formation that is the provision process with symbolical value of the esthetic phenomena caused by the cultural and historical context broadcasting the world of values presented at the level of a design activity.

The methodology of the research is composed of semiotics approach application in the relation to the design language that is represented as perspective in spite of the fact that the problem of symbolical character of culture was earlier investigated in philosophical works of antique, medieval, new European and modern writers, but, there are still unsolved issues, in particular, the understanding of the culture and design language nature as its specific variety in the light of the symbol formation.

**Comparison of Analysis Results**

Nowadays the dominating anthropocentricity in the scientific thought depends on the problem consideration of the person and cultural phenomena world interaction through an axiology prism. It is possible to verify that there is the point of view according to which an axiology is a real life of educational practice among pedagogical concepts. In particular, S.S. Korneenkov notes that education is 'the practical activity of mind and heart leading to various human values' development' [13, page 2]. Moreover, an effective way of the identity formation of design-student is the axiological approach promoting the formation of professional knowledge, skills in the form of specific values’ system. The
experience systematization as a result of an educational practice with the theory adopted in the educational process happens in such manner and leads to the formation of an art world view as an important component in the philosophy system of a design-student. According to the above-mentioned tendency, there is an interest rise in the nature identification and to understanding mechanisms of the knowledge structuring that is specially focused on specifics of a future graduates’ profession in the pedagogical theory and practice. Thereby, it is possible to establish the fact that the modern system of the higher education is directed to the formation of professional skills and development of creative abilities of design-students allowing carrying out their further production activity effectively.

The problem of education and upbringing of a designer as a professional can be solved by means of cultivation of humanistic values’ complex, "a common feature is that all of them acquire the status as a result of their assessment by criterion "humanity or anti-humanity" among students of this specialty [11, page 308]. It explains the increase of attention in the field of modern design theory to problems of ecological values embodiment in an urban environment [12].

The modification of an urban environment happens by means of figurative system of design as it acts as an important part of daily routine, "... constantly transforms environment, not concerning its decoration but its design and definition of main directions of a person activity realization" [14, page 87]. Moreover, the study of design language role in culture has shown that this phenomenon carries out the transmission of esthetic information by means of an elaborate complex of art expressiveness (pictorialism) means. In other words, the design language actively participates in the formation of person's (society) views of objective reality, understanding and an assessment of events in it by means of images. Besides there is an understanding of person as a figure in the modern culture: "The person – an active creation" (I.YA. Loyfman), making an assessment of activity. The person's «world outlook establishes and substantiates ultimate goals, activity direction" and, besides, "directly determines his activity in the appropriate direction", acting "as a system of personality beliefs " [15, page 7-8].

It is an indisputable fact that the evaluative function of design becomes possible owing to the existence of the developed language system and which is possible to represent not only the phenomena and objects of surrounding reality, but to create irrational objects and abstract concepts in the form of the developed system of images (under certain conditions evolving in a symbol) perceived by the subject of design activity in the form of a specific result of the dialectic design creativity process.

Taking into consideration the fact that in the design competence there is a reflection of the world outlook ideals in the modern philosophical and pedagogical thought the design is perceived as an important data carrier about the world integrity [15, p. 6]. These ideals act "in the form of the sensual generalized images which define: the vital program of the person, embodying the ultimate goals of activity, the main requirements of the personality, class, society, embody a desirable and proper image of public and private life (an ideal of society and an ideal of the personality), Thus, the design participates in the creation of a specific way of the world vision, making esthetic impact on people by means of symbolical system.
Modern researches of culture have proved that all various spheres of human activity are connected with the application of language [15; 16; 17]. Despite the existing contradiction of views concerning the links and isolation of language and society development, modern researchers of language unites understanding of sign character of language and the fact that they consider language as a public phenomenon. The facts demonstrate that there is a link between the existence of any piece of art concerning design and the changes happening in public life. It is possible to make a conclusion that the design language can be presented as the special, constantly renewing sign system capable to produce infinitely various meanings and existing only in the relation to society, depending on its development degree.

Researchers unanimously define the degree of cultural communication development as the leading factor of modern society development. According to the concept of U. Eko "the culture - is mainly communication" [18, page 432], it is possible to consider the design representing the part of culture as an effective means of communication between members of society. Besides design, using images of different types of art, allows the individual "... to gain experience of a numerous number of people, eventually – experience of a humankind" [17, page 124], thereby, carrying out the culture saving function. In other words, the product of design activity is considered as a peculiar way of accumulation of spiritual experience of mankind, and its language is understood as the effective communicative system having specific content and opportunities to transfer reflection of the world in consciousness by means of images; language of design comprises elements of a canonicity and originality in a different combination. It is possible to assume that the ornament representing an important part in the system of design language is presented as the basic element to transfer the cultural heritage between numerous generations of people of various historical eras.

The ornament represents the specific sign system capable to accumulate and transmit the special esthetic information by means of a complex of expressive (graphic) means: a line, a stroke, a patch, color, surface properties where the ornament is located; it is special, constantly renewing sign system infinitely making various meanings. In this work the ornament is understood as the system of the art phenomena characterizing an esthetic way of reflection of society art representations among the aggregate of the social and cultural objects presented during a certain period in the art history. It is the universal means for fixation, storage and transmission of specific signals between various generations of people in the form of ornamental images.

The analysis of an art ornament genesis allows assuming that symbols in ornamental art can act as separate ornamental figures, their horizontal, vertical, color and dynamic and composite combinations, and so as strictly differentiated ornamental images, presented as the concrete art construction, a genre, an author's style.

During the conducted research of an ornament genesis and features of it the existence of specifics of ornamental creativity has been revealed. It has caused an interest to the model of esthetic information transmission "the performer (master artist) - the consumer" that has allowed to generalize the main problems connected with life and functioning of an art sign and a symbol in the ornamental art.
The sign situation in the ornamental art is characterized by the presence of three participants: a subject, an object and a sign where the major component is the subject interpreter. It is established that the metamorphosis process of an ornamental image into a symbol can be revealed on the basis of the following model of symbolization: "the ornament – a sign – an image – a symbol" where the ornament gains the value of a symbol, and a symbol in turn, is made out in an ornament.

While conducting the research of ornamental creativity it was revealed that a certain value is fixed in the development of an ornament language into an art sign. So, for example, the geometrical ornament uses the elementary geometrical forms – lines, points, circles, zigzags, spirals, circles, rhombuses, rectangles, etc. A fundamental principle practically of any geometrical form is the really existing generalized and simplified form (the Greek meander-the wave, a circle – the sun, etc.) In a geometrical ornament the attention is focused on strict alternation of rhythmic elements and their color combinations. Geometrical forms, being embodied by art language, gain the value of a symbol. It is known that forms possess the feeling of symmetry - asymmetry, balance - instability, anxiety – calmness etc. In design language the point is considered as a symbol of the center, beginning, creative force, and the personification of the concentrated energy that is as the quintessence of all signs. The the horizon line (the horizontal line) symbolizes the movement, it is a symbol of truthfulness and the perfect person. The circle in an art culture is perceived as the geometrical figure capable to arouse feeling of balance; the circle symbolizes harmony and balance heaven and earth, top and a bottom, etc. In ancient mythological consciousness the circle was perceived as the figure which does not have the beginning and the end so that is a harmony image. If the circle expresses an idea of perfection, eternity and infinity, then, on the contrary, the square is perceived as the static perfection, stability, terrestrial and material aspect of life, reliability. The rhombus represents the female creative principle so it is used in art as a fertility symbol. The universal symbol of mankind is the cross which symbolizes space, expresses an idea of "the center of the world", "light of truth", "the archetypic person".

So, the polysemy of information contained in images created and transferred by an ornament language is multiple-valued, thereby, it is possible to conclude that the ornament language is universal. Thus, the ornament language as difficult phenomenon represents a system of levels where there are geometrical, natural, vegetable, zoomorphic, anthropomorphous, subject symbolics functions.

So, the design language acts as a peculiar cultural memory of mankind, providing the preservation of traditions and leading to the unity of groups, i.e. the fundamental function of the design language is the association of various generations of people. Besides the design language promotes the concept formation of social ideal, carrying out the influence on consciousness of masses and putting into practice ideas of ruling class (the ideological function). In this connection it is possible to conclude that, firstly, the design participates in the formation of a specific type of consciousness of an era, influencing a system of principles, beliefs and ideals of a person (society), implementing, thereby, the world outlook function; secondly, the design represents an effective means of the
social communication. Therefore, the statement that the design language carries out the social function is lawful.

During the generalization of various theoretical and practical materials of design creativity it has been established that design, by means of especially collected means as the cognition and self-cognition carries out the heuristic and informative function.

Practice proves that transformation of individual sensual data into symbols is possible in design; moreover, quite often the designer demonstrates his or her preference to the same signs (symbols) that allows assuming the application of author's signs (symbols) in design i.e symbols of author's style.

The research of design creativity has proved that at perception of the art phenomena created by significant means of design language, all diversity of signals transmitted to the consumer of cultural artifacts is processed and turns into signs which during creation of certain conditions can evolve subsequently in symbols. The symbolization process in design creativity is carried out in such a way.

At the same time understanding that the designer not so undertakes an attempt of copying the reality as he tries to change it creatively is essential. It is established that the design language is able to form and express thoughts, and also to transfer the diverse world of emotions, experiences and feelings of a person by means of images and "... the original creative artistic intention is never defined by rational reasons, and always by spontaneous experience ..." [19, page 17]. It is possible to assume that the design realized as a systematic object represents some integrity where it is possible to allocate the dialectic interaction of emotional and rational levels.

So, the undertaken analysis of design language allows seeing in it the communicative system possessing the specific content and form. Moreover, the design language (in comparison with the science language in its rationalization and systematization) has an expressional function actively used by modern designers. Besides, the symbolical complex of language means of design carries out the futurological and predictive function. This function is comprised in the ability to foresee and to anticipate future that is quite often imprinted in the design creativity.

A verification of the nominative function of design language (allowing to allocate an object of research from an informative situation), along with the representative function (representing results of cognitive activity) and the significate function (realizing the generalization, abstraction and an explanation) is necessary.

The above-mentioned functions of design language realize the person (society) need to transfer the figurative system of art owing to the existence of a specific sign language (symbols). Thereby it turns out that the use of semiotic means in design promotes understanding of exchange mechanisms of sign systems between the creator of a piece of art and that subject of creativity for whom it is intended (the semiotic function).

The sign system of the design language, as well as any other system, consists of elements. A point, graphic lines, a patch, color, a form and etc. are carried to design language elements as a special sign system.
The research of an extensive class of the sign formation, functioning in design, has proved that symbols representing the most difficult class of sign formations possess the greatest informational content among its variety in systems of signals and signs.

In this work the symbol is understood as the sign possessing the figurative sense (the second), characterized by the importance. Symbols in modern philosophical thought are considered as a special class of the sign-shaped nature, as the signs taken in the ratio with other sign structures and signs-symbols. Traditionally in philosophical literature the existence of its counterbalance to another sign (signs) within the concrete system is referred to important properties of a sign.

The following important distinctive feature of a sign – its cumulative character, shown in the process of design language development when the certain value, correlated to saved earlier information, is assigned to the sign. It is noticed that symbols are designed in a concrete historical era and depend on its features (traditions, dominating world outlook, etc.), but at the same time they gain the distribution in other historical intervals of time, functioning in the same quality (as a symbol). Thereby, the specific of the sign existence (symbol) in design is considered according to the peculiar sign situation; all various sign formations in design, on the one hand, are historical, and on the other hand – out of history. If to pay attention to examples of design creativity, then it contains practice of the application of the fixed system of meanings. So, for example, the horizontal line symbolizes tranquility, peacefulness, serenity and calmness, the vertical line creates an image of balance and constancy. On the contrary, the diagonal line is used in design creativity for the expression of the movement image, the curved line in the art composition creates a rhythm, and gear lines represent delight, anger, transfer rise and recession of energy. It turns out that a specific place is held by the line as the most universal element and above-mentioned types of lines possess the symbolical embodiment in images of design art in the structure of design language.

The practice of total distribution of symbols in modern urban environment has proved that the symbol incorporates general and individual, special in the structure, it is an archetype and also multiple-valued. All above-mentioned characteristics of a symbol allow considering this phenomenon from a position of a ratio of an intersubjectivity and subjectivity.

The design language frontage to the objective world and to actually human world of thinking defines a particular interest among scientific researches in the field of modern linguistics where duality of the design nature is noted. It defines the special complexity of its analysis. So, the functioning of design works in the history of culture demonstrates that an emotional life of the subject of art creativity is impossible without logical sphere which in turn gets a certain emotional coloring, thereby, the sensual and rational reflection of the world connect with each other in the art knowledge.

The color as an element of design language system plays a special role in the urban environment formation. In the history of culture red color traditionally symbolizes heat, fire and is associated with a solar heat by person, being perceived as a color of life and (or) blood; blue and blue colors are perceived as colors of sky and water, representing purity, eternity, stability, secret and truth. Green color in design creativity is an embodiment of the
nature, life, spring and immortality; on the contrary, black color acts as a symbol of mourning and grief, chaos and a symbol of elements of the nature (earth). Violet color is perceived as a color of nostalgia, depression, quite often in art it acts as a memory sign. It should be noticed that, firstly, the knowledge of semantics of color allows the designer to create the certain image which is actively influencing consciousness (also unconsciousness) of the subject; secondly, despite visible universality in interpretation of color symbols, it should be noted that the symbol has its nationality, i.e. national peculiarities of interpretation of a color palette perception (in Russia white color symbolizes life, innocence, moral purity and chastity, in Japan white color – a mourning symbol, means a blindness and absolute silence). The symbol is subjective (along with objectivity) as the fact that the image is formed in consciousness of the subject perceiving art composition.

Thus, it is possible to assume that the change of color creates an infinite variety of its options in spite of the fact that during the evolution of design creativity there was a color canon.

Thereby, it is possible to confirm that the color scheme of a design image is variable; color in art in general, in design creativity, in particular, is allocated with symbolical value.

It should be noted that the important principles of creating a design image are integrity, symmetry, asymmetry, a rhythm and plasticity.

A specific character of design language is made by presence of different sign levels where the groups of elements are in interrelation (the same element can interpenetrate into another). There is provision of design language elements with symbolical value. The process of design language functioning is difficult and dialectically contradictory and is characterized by the fact that it includes the process of creation, functioning and perception of art and semantic phenomena.

In the design activity the various symbolics is used. Separate elements and their combinations ("microimages"), complete artistic images ("macroimages") created with the concrete design are able to behave as symbols in design.

The analysis of functions carried out by design in activity of person and public processes has shown that the design language fixes the world variety of valuable orientations created and transferred with the help of symbolical means. So there is transmission of values between different generations of people that is the axiological function of design in human lives (societies) and it is realized by means of a sign formation.

In modern literature it is noted that "... designers broadcast new norms and values, standards of behavior and consumption, and in general the vital models always affect on the person which is in the system of the total design" [14, page 87]. The carried-out analysis of values used in the design practice leads to ascertaining of the fact that, firstly, values cause each other, they are individualized, also they can refer to the history or not, they can be regional and global, that is the dialectic approach applied to them; secondly, all existing variety of values functioning in design creativity can be classified with various bases. It is noticed that the individual builds the hierarchy of values independently, being conformed to public requirements.
So, it is possible to conclude that the design language plays a special role in the formation and expression of valuable relations of the design student to the world. The symbolical character of design language promotes the creation, broadcasting and universal values’ storage by system of especially collected methods of art abilities’ formation, producing the formation of creative spirit of the personality (the cultural and educational function). The future designer expresses an active living position of design creativity that finds the embodiment in the educational and humanistic functions of design allowing forming and regulating moral guidelines of the personality by means of symbols language system. Moreover, the history of formation of the symbolical culture world demonstrates an orientation of art texts about the harmonization of relations between the person and the world surrounding him. The study of cultural history promotes the formation of an art picture of the design student.

In the modern art criticism [19; 20] it is noted that art activity is directed to the creation of the images system transferring the general idea of a piece of art. The formation of high culture of thinking created with the help of art means as the essence of any piece of art is not only the transmission of high feelings and experiences of the person (society), but also the system formation of ideals that allows defining the educational function regardless of distinctions of historical development periods. So, the main purpose of modern design is the cultivation of universal values, such as the truth, kindness, beauty and the symbolical world of design leads the subject of art creativity through "the clarification of affects through fear and compassion to tragic action", to the harmonization of thoughts and feelings (the catharsis function).

It is possible to claim that along with the catharsis function the design language carries out the entertaining (game) function and the text created and transferred by design language is perceived as pleasure, i.e the design language is considered as means of pleasure (the hedonistic function) and (or) as a consolation (the compensatory function).

The design is considered as the activity directed to the psychological relaxation (relaxation function) in the modern philosophy of art and art practice.

The skillful use of psychological opportunities of design language means by the creator of the art text is capable to remove negative consequences of stress (the psychological function). Besides, the correctional actions concerning the deviant personality behavior become obviously possible. Moreover, the possibility of thought suggestion motivating the subject to certain actions (the so-called suggestive function) is realized by means of a complex of expressive and graphic means of design language.

Thereby, it is possible to consider the design as a peculiar set of physiological and social components influencing the person mentality by means of developed system of signs (the suggestive function). So symbols, setting and regulating the relations between its elements and systems of levels “penetrate” the whole system of design language.

**Conclusion**

While researching the nature of design it has been established that design language carries out the following functions: informative and communicative, esthetic, philosophic, evaluative, heuristic and informative, semiotic,
nominative, representative, significate, expressional, ideological and cultural and educational, etc.

It is possible to distinguish the main and secondary functions among a variety of functions carried out by design language. The main function of design language is informative and communicative function. The essence of this function is acquisition and broadcast of specific esthetic information between different generations of people possessing the concrete valuable preferences in the field of art caused by change of world outlook references.

While generalizing different material of design it was revealed that the design language represents the special sign system promoting the formation of a complete idea of the world existence and the variety of esthetic values functioning by means of specific means of art expressiveness (pictorialism).

The analysis of functions carried out by design and its language allows concluding that the design represents an object of modern science study where it is considered as the specific information system promoting the complete idea formation of a hierarchical variety of the utilitarian and esthetic values’ world life. Moreover, the design in its formation process has developed the special language serving for the accumulation and transmission of esthetic information.

The design possesses the specific artificial language created for the satisfaction of esthetic needs of a person (society). The design language transmits various meanings and represents the constantly renewing sign system. There are systems of different sign formations on these levels and any single sign is included in a certain sign system.

The design language as a result of cultural activity of people represents the multifunctional system. There is various sign formations’ function (signals, signs, their various systems and also symbols).

Design is a system object carrying out a number of functions among which the special value belongs to the esthetic function. The role of this function consists in the formation of an art world interpretation of the design creativity subject and its reflection in symbolical images of design. The important function of design language is the symbolical function allowing imprinting a world picture, reflecting it by means of a variety of signals, signs and symbols.

Thus, the design occupies an important part in the system of aesthetic education, forming a specific method of the world vision, making an esthetic impact on people by means of symbolical system and transmitting ideas of a hierarchical variety of world life through a prism of esthetic values.

Thereby, the design language as the specific system of signs (symbols) developed in the course of historical development of culture carries out not only the informative and communicative function, but also the esthetic function which provides understanding of art requirements and abilities of any design student and brings up the aesthetic taste.

Disclosure statement

No potential conflict of interest was reported by the authors.

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