

CHAPTER «HISTORY OF ART»

MODELS OF REALIZATION OF THE CONCEPT OF «NATURALNESS» IN THE INTERIOR DESIGN OF HOSPITALS FOR CHILDREN

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Abstract. The article analyzes the basic models of realization of the concept of «naturalness» in the organization of interior design of hospitals for children. The interior design of hospitals has recently been aimed at rethinking the problem of scarcity of natural components and finding new ways of implementing them. It is because of the need for emotional relaxation in the natural environment of children undergoing treatment that designers are increasingly trying to come up with interesting ideas. Today, the interest of practicing designers in solving the above problem has increased significantly, as evidenced by the visual material of the study. However, it should be noted that theoretical developments in this area are almost absent. Works that reveal the nature of the embodiment of natural components or their artificial imitation in the design of children's hospitals are more descriptive. Thus, the need to analyze the formation of interior design of medical institutions on the basis of the concept of «naturalness» becomes relevant and requires the definition of its models, functions, systematization of the principles and methods of realization of the author's intention in the system of combining the child and nature through the introduction of elements of artificial and living nature. In elaborating the topic of the study, the author created generalizing tables in order to

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systematize the functions, principles and techniques that characterize the content of artistic ideas of the author.

1. Introduction

Recent project designs by architects and designers indicate that in the context of globalization, the role of the environmental factor, as one of the main ones, is growing. Ecological aesthetics shapes a child's positive attitude to the artistic image of objects of design, directly influences to his psycho-emotional state and helps nurture a positive attitude to the environment through a complex of graphic, plastic or interactive components.

Among the scientists who raised environmental issues in the design of the object-space environment should be mentioned the following: O. Boychuk [2, p. 28], S. Kryvuts [1, p. 72], V. Bondarenko [1, p. 72], V. Kurochkin [4], V. Prusak [6, p. 88]. Author of the article «Ecological theme in urban art design», V. Kurochkin, revealing the need for environmental factor, states that natural images of art objects, their genre environmental orientation, integration into the existing architectural structure allow to visually transform the space, help to reduce negative influence environment and increase the creativity of the individual, create a comfortable atmosphere [4]. Essential aspects of eco-design are meaningfully provided by Pankin's research «Ecologization modern design» [5, p. 380]. The author reveals a number of factors that are basic in the contemporary design of objects, including: natural decoration materials; elements of shaping that allow you to create the most comfortable visual environment, as well as technical innovations that extend the potential of design solutions that are inherent in nature. An ecological approach in the design of innovative building and decoration materials, whose characteristics further affect the condition of the design objects, is analyzed in the article of S. Kryvuts, V. Bondarenko [1, p. 72].

Thus, the multifaceted perception of the interior space of children's health care facilities is manifested through the organization of a design idea, which is due to the introduction of artistic and modern technological techniques and materials. The variational nature of the above techniques in shaping the modern design of hospitals for children allows to determine the relevance of the concept of «naturalness». Systematization of the main aspects of this problem reveals the fundamental novelty of the design approach in terms of organizing the visual image of a harmonious and comfortable

environment of children's hospitals. The methodology of the research is to apply the method of analysis of scientific sources, which was carried out in order to study the state of the problem under study and determine its relevance; an empirical method of research that allowed purposefully and systematically to collect information, make a primary generalization, systematize and classify conceptual models of decision making for the design of children's health care institutions; an important role was played by the phenomenological method, which allowed to determine the predicted impact of the chosen composite decision on the viewer.

2. A paradigm shift in the design of hospitals for children

The social relevance and relevance of the chosen topic of the study is to analyze and identify fundamentally new design models for the implementation of a new paradigm based on the concept of «naturalness». The design of health facilities for children in economically developed countries, such as the USA, Spain, Portugal, China, points to changes in the approaches to their design processes. Characteristic features of the solution of their design are the use of technological innovations, the availability of space-planning, design and artistic-shaped solutions. It should be noted, as evidenced by the visual material of the study, in recent years the demand for the introduction of elements related to nature has increased significantly in the design of medical facilities. Focusing the kids on bright graphic images or art objects that resemble natural ones changes the psychology of the health institution's perception, reduces stress, discomfort. In addition, at the present stage of the design of hospitals for children, discovering the concept of «naturalness» contributes to the emergence of a sense of belonging to the natural world. Thus, it can be argued that the emergence of a new concept – the concept of «naturalness» – is a manifestation of modern understanding in the need to change the modeling of the object-space environment of medical institutions for children. It should be noted that the main six models of the concept of «naturalness» are a fundamentally new means of its implementation and open the possibility of artistic expression of medical institutions on the basis of two directions: natural (two models) and artificial (three models).

The natural direction is based on the search for the effective use of natural components in hospital design, where the author's concept is revealed through the introduction of two models:

– the use of natural elements and forms of landscaping that enhance the aesthetic characteristics of the overall composition of hospital premises;

– the use of a transitional model in interior design, where the effect of filling with natural components is achieved by the abundance of glazing. In this case, the principle of the flowing of elements of wildlife into the interior space is created by creating the illusion of the presence of natural forms associated with the visual perception of children of their composite elements.

The artificial direction of the concept of «naturalness» is decided by specialists on the basis of three models, where the compositional accents and artistic and figurative characteristics of artificial natural elements of form formation are revealed by specialists due to their stylization, variety of execution techniques and coherence with other subject-space filling of the interiors of the hospital:

– based on the interpretation of artificial art objects as natural forms;

– based on the creation of murals or decorative panels in abstract and symbolic language by various artistic and technological means;

– by means of digital art.

It should be noted that the innovative modern possibilities of technological execution and expressiveness of artistic-figurative techniques allow to determine the perfection and variety of topics in the disclosure of the concept of «naturalness». Among the many concepts that convey the content of the concept, architects and designers use precisely those that allow the child to plunge into the magical world of the transformative reality of the interior space of the medical facility. The main topics that change the child's perception of the medical atmosphere should be the following: 1) travel from earth to heaven; 2) travel in the forest; 3) sea voyages.

3. The main factors of natural direction models

Designing an ecological space based on *the model of introduction of natural elements of landscaping* today is one of the effective tasks of solving the problem of improving the visual and emotional state of the treatment and rehabilitation of a sick child. Considering the importance of an ecological function that purposefully helps to create favorable microclimatic conditions for the treatment of children through the use of natural landscaping, it is necessary to analyze the principles of their construction on the examples of foreign experience.

Design of Asuncion Trauma Rehabilitation Center near Lambare (Paraguay), is designed by the local Gabinete de Arquitectura Studio. The complex is built on the principle of expediency and reveals the content of the main idea through the design-organization of stone buildings in the lush green garden for recreation and games for children. Due to the introduction of the recycling method, the formation of interior and exterior spaces was made using only natural recycled materials: bricks, ceramic tiles, wooden sheds, etc. The function of introducing environmental sustainability is solved by the project sponsors as a demonstration of reforming a new outlook on environmental issues. Conservation of living elements of nature becomes the key in determining the compositional accents of building the space of the rehabilitation center. Big trees, green lawns are all harmoniously formed by the authors of the project and offset the signs of a healing atmosphere. This example points to the possibility of organizing a hospital space design, combining an environmental approach and the use of natural recycled materials.

The following example also confirms the interest of specialists in the design of children's hospitals, taking into account *the model of introduction of natural elements of landscaping*. Maintaining the inner peace of a sick child is the most important task of the authors of the project. The expressiveness of the design organization of the interior of the hospital is achieved by solving humanistic problems through the introduction of natural components (trees, flowers, etc.) in the rest area. The conceptual idea of the work of designers is revealed because of the clarity of the spatial organization of natural objects. *The principle of mobility*, which created the main composite model of landscaping, makes it easy to service plants, if necessary – to change the overall composition associated with the use of colors of different bright colors. When designing many models for the introduction of natural landscaping into indoor space, one should analyze the professionally designed interior of Waikato Hospital in Hamilton, New Zealand. The main concept behind the project is to create a breathtaking dynamic landscape with the means of a spatial organization. The authors of the project tried to unravel the undulations of agricultural lands and hills inherent in the Waikato area in the composition of the space. Another source of inspiration for the author was to create a place where you can meet with family, socialize and forget about stressful situations for a while.

The professionally formulated concept of the architectural and artistic solution of Waikato Hospital reveals *the content of the transitional model of the flow of natural elements into the interior space*. It should be noted that the importance of a bright color palette of artificial three-dimensional elements, which are lined with environmentally friendly material – marmoleum. The green, orange, and yellow hues of the three-dimensional body covering the entire space of the room create a positive psycho-emotional atmosphere for relaxation. Along the perimeter of the zones, developed with the help of decorative artificial elements, are dark green tall natural plants, which additionally create the effect of “centers of gravity to the natural environment”.

The second transitional model, where the effect of filling with natural components is achieved by the abundance of glazing, is presented in the project Children’s Hospital Zürich. The main characteristic of the concept of “naturalness” and the most important task of the authors of the project is the inner peace of the sick child. The expressiveness of the design organization of the interior of the hospital is achieved by solving humanistic problems through the introduction of natural components (trees, flowers, etc.) in the rest area. The conceptual idea of designers is revealed because of the clarity of spatial organization of natural objects. *The principle of mobility*, which created the main composite model of landscaping, makes it easy to service plants, if necessary – to change the overall composition associated with the use of colors of different bright colors.

4. The main factors of artificial direction models

Considering that the influence of the third model – *models of interpretation of artificial objects as natural forms* and today is very widespread, more and more often in the design of interior design architects use artificial elements that imitate natural plants by various means of design. An example is the Royal Aberdeen Children’s Hospital. An important component of the concept of “naturalness”, in this case, is the solution of the walls due to the large amount of glazing, which starts from the floor and continues to the ceiling. Thus, nature almost “enters” the premises of the hospital. The compositional dominant in deciding the space of the hospital is the spatial, centric shape that resembles a tree. Made of wood, it is a generalized stylized symbol of the “concept of naturalness” in deciding the interior of a hospital.

All functional areas of the room are unfolded near the symbolic tree. Emotionally saturated space is built with bright colors that reflect the external characteristics of natural elements (yellow, green, blue). The function of ecology is solved by the authors of the project through the use of Sarlon flooring, Forbo Flooring Systems, which has high acoustic and hygienic qualities. Minimizing the noise pollution of Sarlon eco-friendly material can help you avoid sleeping disorders, headaches, stresses, etc. when used in the design of healthcare facilities.

It should be noted that in the context of defining the concept of “naturalness” on the basis of the third model, the means and types of its construction are quite diverse. Among the main *types* of popular are the following: 1) imitation of the natural landscape abstract and symbolic language artificial means of design; 2) creating an imitative image of natural forms by artificial means of design. Analysis of the visual material showed that *the imitation of the natural landscape with abstract symbolic language by artificial means of design* is quite expressive in the design organization of interiors of children’s hospitals and is based on the principle of *comparison*. An example of the artistic expressiveness of a medical facility is a rehabilitation center for children in Manitoba, Canada. In deciding the artistic and figurative component of the concept of “naturalness”, the project author uses associative-symbolic language in deciding the stylization of the floor and decorative objects above the ceiling. The main compositional emphasis that visually emphasizes the importance of natural elements in the design of the room is the juxtaposition of living trees and trees made of colored plywood. Of course, the interior has a positive effect on the child being treated here. It should also be noted that the overall composition of the interior space performs a cognitive-educational function. The interior design of the hospital is characterized by a variety of natural-looking broadcasts in the main aspects: the vibrant colors of the natural environment, the unobtrusive stylized decorative elements of natural shapes, the furniture and equipment that resemble animals or stones. Thus, the creative design of the rehab center helps the child consistently obtain new information, created by the magical world of artistic culture.

A striking example *of creating an imitative image of natural forms by artificial means of design* is the design of the Randall Children’s Hospital, designed by ZGF Architects, 2012 (Portland, Oregon 97227, USA).

To this date, constant information oversaturation negates or complicates the perception of important information. However, the architects of ZGF Architects Studio have been able to overcome this phenomenon by offering thematic images of the natural world on each floor that have specific characteristics specific to specific regions of Oregon and Washington, USA. Each proposed by the architects animal is made in different materials and appears in the most unexpected places for the child. The importance of this concept for the child is that it forms the necessary value system through a combination of creative and educational tasks.

The fourth model of disclosure of the concept of “naturalness”, as shown by the analysis of visual material, occurs through the detection of story content is *based on the creation of murals or decorative panels in abstract and symbolic language*. The effect of expressiveness, in this case, is formed through the use of various artistic and technological techniques and materials, namely: 1) graphic techniques; 2) tactile in combination with graphic; 3) volume plastic. Each designer creates the space of the hospital for children in accordance with his professional handwriting, emphasizing the uniqueness and individuality of the concept of “naturalness”. In addition, choosing one technique to perform or combining different techniques, choosing a scale that reflects the master, all have a positive effect on the perception of the space of the healthcare facility. Innovative techniques in the design of the hospital space and the use of modern technologies in the processing of materials lead to the fact that

Let us analyze the expressive examples of contemporary project practice in the formation of children’s hospitals on the example of the Royal Children’s Hospital in Melbourne, Australia (Figure 1). The main purpose of the conceptual design of the designer was to create space on the basis of the scenario approach, that is – from travel in natural conditions. Walking along the colorful images on the walls, it seems that the master himself was filled with positive emotions from what he saw. The compositional integrity of the dynamic panels is achieved by the harmonious blend of bright spots and the expressiveness of a thin linear pattern that pervades the spots with the image of natural elements. The combination of these execution techniques allows you to design a complete monumental and decorative work on the perimeter of the entire wall of the hospital based on *the principle of harmony*. For a quick understanding of key functional areas

of the Royal Children’s Hospital, designers choose travel topics as a way of reference in the space of a healthcare facility. Each floor forms its own interpretation of the design concept of “naturalness” through the following changes in visual-graphic language: 1) each floor has its own composition, which is solved by a color scheme, which is not repeated on the other floor; 2) the clarity of the linear pattern is transformed into a large number of background color spots, the expressiveness of which is complemented by the drawing; 3) the compositional content of the panel is solved using 3-4 colors.



Figure 1. Royal Children’s Hospital in Melbourne, Australia

When small patients move from floor to floor, the subject matter of forest adventures on earth changes to natural adventures in the sky or in the ocean. Accordingly, changes occur in the color scheme and graphic stylization of the drawing. This project won the 2012 IIDA (IIDA) Global Excellence Awards.

Another theme of the concept of “naturalness” – adventure in the forest, it is quite common in the design of children’s health facilities. By creating a hospital-themed design, the craftsmen transform the interior space into a solid forest with many animals trying to communicate with a sick child (Figure 2). The main purpose of creating a morality design at a London hospital is to provide a visually appealing atmosphere where toddlers can instantly forget about health issues by consistently studying animals as they move further along the hospital corridor. To create the desired impression of compositions, designers use a *simple graphical technique* of overlapping one image to another. This example demonstrates the *reception of increased contrast* in color-tone relationships and the *reception of simplification of visual motives*. The silhouette of the decorative panels, the schematization of the images of animals and plants, the openness of color – all contribute



**Figure 2. University Children's Hospital (London, UK),
Arch. EMMI Studio**



Figure 3. Emma Children's Hospital in Amsterdam, the Netherlands

to the tension and understanding that in this interior – color is an expression of a conceptual idea.

As shown by the material of the study, *the reception of approximate color-tone relationships* is common no less than contrasting colors and fits the aesthetic function of building design of health facilities for children (Figure 3.). The Emma Children's Hospital in Amsterdam demonstrates the variability of the character of modern interior design. The main idea, which was successfully executed by the designers, was aimed at creating an unobtrusive positive psycho-emotional atmosphere that is least reminiscent of the healing. The above confirms the regulatory function of the hospital design, which has the character of neutralizing psychologically difficult emotions. This effect is achieved by the very chosen designer reception of decorative panels along the entire space of the hospital, the main concept of which is the concept of "naturalness". Converging color-tone relationships of the developed graphic compositions have a calming effect on the visitors, symbolically synthesize the image of natural elements, and to some extent create the illusion of complete distraction from difficult thoughts related to treatment.

The natural process of knowing the child of the natural world today is due to the active *use of photos* in the design of medical institutions. Modern printing services are an affordable means of obtaining the desired result in creating the necessary artistic image. The analysis of visual material showed that the modern objects of children's hospitals reveal the meaning of the concept of "naturalness" by means of photographs using the following artistic techniques: 1) contrast of color-tone relationships; 2) receiving a larger scale; 3) equilibrium of image elements (Figure 4).



Figure 4. Phoenix Children's Hospital / HKS Architects

Nowadays, when printing technologies have reached the high quality of color images, a means of using them to improve the psycho-emotional atmosphere of children's health care institutions is becoming popular. Providing high quality transmission of color-tone relationships led to the decision of decorative panels based on the reception of a larger image. This technique is fundamental in creating a compositional dominance in the design of children's hospitals. Considering that the natural world is very rich in expressive forms, elements and details, it is important to note that the use of large-scale photographic images is an important component of interior space design, has a cognitive-educational function and has a positive effect on the perception of images by visitors of all ages. Through the play of rich colors, the multiplicity of demonstrations of textures and textures of the natural world, the child's attention is completely subordinated to the perception of the information provided by the master. The proposed photo compositions in the design of hospitals for children have a local nature of their location and are a kind of landmark. This approach of the authors shows a positive example of broadcasting *information and communication functions* in hospital design.

One of the priority *graphic techniques* in the photo industry today is to call *integration*. The example of children's hospital formation of Seattle-Childrens-Hospital-South-Clinic-Earth-hallway (author Zaara Kitten-Chops) confirms the abovementioned (Figure 5). To create a decorative panel on natural themes, the designer uses transparent and white film, which is pre-painted with realistic images of the natural world. To reveal the depth of the composition space, the author integrates brighter realistic images into the background images. The figurative expressiveness of the decorative panel is achieved with the help of collage technique. However, it should be noted that the technique of collage on different floors and different functional areas is different from each other, namely:

– when using a background film, which, thanks to the possibilities of printing, draws *on the basis of the artistic reception of the approximate color-tone scale*, the designer enhances the juxtaposition between the background and the main image, integrating realistic images of the stones, leaves and clouds with a zoomed in relation to the child;

– color film shows realistic images of animals, leaves, flowers, mushrooms and more. The effect of expressiveness is achieved by constructing the composition *on the basis of a larger scale in the collage technique*, without drawing the images on the background film and its subsequent use. The fact that the elements of the composition are arranged in a chamber along the wall, they look more contrasting (without the background film), which increases the interest of children in the processes of knowledge of the natural world. *Reception of creation of literal texture* of natural elements through the demonstration of their realistic branches, petals, texture of stone. All this creates harmony in the conditions of design organization of object-space environment of children's hospital. Thus, the author of the images (Zaara KittenChops) reveals the concept of "naturalness" through the activation of the cognitive-educational function.

Interpenetration of architectural and design techniques with specific modern techniques of graphic design means the development of a new *trend*. Creating a decorative panel with graphic design tools, the masters comprehensively solve the problems of environment design, based on *the principle of transformation* and contribute to the formation of a positive emotional state of visitors. Possibilities of modern printing technologies, expressiveness of panel techniques, comparison of background abstract



Figure 5. Seattle-Childrens-Hospital-South-Clinic-Earth-hallwa

symbolic images with realistic – all the above components prove that in the design of children’s hospitals at the beginning of the XXI century a new trend was developed, which in the complex of all signs is responsible for the harmony and comfort of the medical space – reception of *receiving a combination of tactile elements with graphics*. For example, the design authors of Royal London Hospital laconic on the basis of the above admission reveal the meaning of the concept of “natural” (Figure 6).



Figure 6. Royal London Hospital

The rhythmic sequence of the natural surroundings of the images on the walls is made in green with no unnecessary details and lines. Nothing distracts from the overall composition’s perception of the whole: almost even proportions of natural hills do not violate the overall impression of the composition. Large colored spots of hills are offered at the level of perception by both adults and small visitors. Compositional dominant features are stylized elements of plywood. Woodworks author Miller Goodman creates laconic decorative inserts to help reveal the main idea without overloading the space with unnecessary decor elements. This technique speaks to the professionalism of a designer who does not try to overload the unnecessary elements of the perception of decorative panels in the hospital room.

The introduction of the theme of «sea adventures» in the implementation of the concept of «naturalness» occupies no less important place in the work of modern designers. Consider the basic techniques for creating interiors for children: 1) imitation of the marine landscape in an abstract symbolic language by artificial means of design; 2) design art objects using natural elements: stones, seashells, corals, crabs and more; design art objects using artificial design tools. The informativeness and richness of marine natural resources often gets the attention of designers. A clear example of this is the design of a children’s hospital Ann & Robert H. Lurie Children’s Hospital (Figure 7a).



**Figure 7. a) Ann & Robert H. Lurie Children’s Hospital;
b) Children’s Hospital Therman Statom, Norfolk, Virginia**

In this environment, the function of environmental sustainability is achieved through the use of forms of marine plants made of artificial materials *on the basis of large-scale reception* with the addition of natural marine animals as a compositional emphasis. A large number of seashells fill the structure that mimics the “sea reef”. All elements of the composition look very natural and attractive. In fact, it seems like a complete dive into the depths of the sea. Emphasizes the effect of immersion of a developed porthole with live marine fish, in which you can contemplate the life of sea creatures. The main idea of creating expressive space also reflects a regulatory function, since long periods of hospitalization can accumulate psychologically difficult emotions. By revealing the content of the concept of “naturalness” the authors of the project by the following means:

– *technological*: availability of panoramic glazing (this technology is a modern trend in the design of public buildings; creates an opportuni-

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ty to dramatically change the perception of interior and exterior space; improves the quality of interior lighting; contributes to reducing energy costs;

– *artistic and imaginative*: the visual organization of the interiors is due to the introduction of large, laconic colored patches of blue tint on the walls and floor. Smooth lines of the drawing contour move along the wall, resulting in a calming effect. In the absence of unnecessary decorative elements, the design of the medical facility looks attractive and creates an atmosphere of relaxation. Convincing in creating a common design concept combines the view of a seascape behind panoramic windows with a rather restrained decision of hospital premises based on light blue ratios. Around you can feel the “breath of the sea breeze”.

Another example is an organic combination of functional and aesthetic environments. The design of the Therman Statom Hospital, Norfolk (VA) is solved by expressing the plasticity of decorative elements made of plexiglas blue shades on the ceiling and graphic elements on the floor (Figure 7b). The decorative elements attached to the ceiling have a rectangular shape with a slight wavy slope. Wavy forms create the effect of movement of decorative elements. Splashes of bright compositional accents in the form of large, stylized marine fishes, turtles, etc. throughout the ceiling give the impression that there is some wonderful effect in the depths of the ocean. It should be noted that the artistic image of the inner space of the children’s hospital is formed almost only at the expense of the ceiling. An additional feature is the wavy elements on the floor, which visually delimit the space in accordance with the functional areas. The emotional impression of the proposal of the authors of the project creates a positive unobtrusive atmosphere in the hospital.

Fifth model of artificial direction of the concept of «naturalness» reflects the innovation in approaches to environmental design. Contemporary digital art has a huge influence on the concept of «naturalness» in the design of hospitals for children. Up-to-date design thinking covers the following technological tools: 1) interactive; 2) touch; 3) using LED technology. Through the expansion of the child’s worldview this function

St. Joseph's Health Center). Thanks to the GestureFX Health GestureFX spreadsheet program, children have the opportunity to receive interactive video projections, which are aimed at a unique form of learning through the projection of gestures and movements based on the immersive method. It should be noted that the actual use of interactive technologies based on this method in shaping the design of children's hospitals is the basis for the education of moral, personal and aesthetic qualities of the child during its treatment. The importance of the concept of the design team was awarded for the effective use of immersive projections in creating an innovative space of St. Joseph's Health Center. The design of the hospital is designed to create a relaxing environment that can reduce stress when treating children. If we consider interactivity as a means of expressing the communicative function, it should be noted that it helps the development of a new type of aesthetic consciousness. The themes of various creative digital ideas are formed in accordance with the creation of a socially adapted atmosphere of the medical institution, namely – through the introduction of the concept of "naturalness"; marine subjects and through the effect of flow of the external natural world into the internal on the basis of immersive method.

The study of the solution of multifunctionality of the object can be traced on the example of Lurie Children Hospital (Chicago), the design of which fully corresponds to the main concept of today – the concept of "naturalness". In this case, the formation of the design of the interactive environment is built thanks to flexible fencing structures with light effects, which are a composite accent of a large area of the internal space of the hospital. The combination of artificial interactive forms and elements of wildlife allows to solve the following questions in formation of hospital design:

- zoning of hospital space;
- humidity control;
- creation of favorable microclimatic conditions in the interior by means of light effects;
- sampling of music recordings that are responsible for the psycho-emotional atmosphere of visitors.

The result of the innovation is the positive state of the children being treated and the opportunity to gain an unusual experience *based*

on cognitive-educational function. New technologies allow the storyline to be revealed with bold, non-standard 3D tools and, most importantly, to reduce stress. Feeling in the virtual world, the child changes the perception of the outside world and perceives emotionally and physically offered fleeting artistic images of the deep-spatial composition (Figure 8).



Figure 8. Interactive Media Wall at Boston Children's Hospital

5. Conclusions

1. The scientific novelty of the research material is that: 1) the significance of the concept of «naturalness» in shaping the design of hospitals for children is theoretically substantiated; 2) five main models of this concept have been identified, developing in two directions: natural and artificial; 3) analyzes the functions, principles and techniques (artistic and technological) by which the leading masters solve the problem of artistic and aesthetic image of objects (Figure 9).

2. The results of the study indicate that the performance of leading masters of creative work in the space of children's hospitals, through the use of these topics, has a therapeutic soothing effect. In addition, the important principles and techniques of visualization of the concept of «naturalness», which are of great importance for visitors of different ages, take into account: improving the microclimatic features of the premises; change of visual perception of medical space; aesthetic characteristics of the completed overall composition of the establishment, accessibility of perception of the navigation system.

3. Systematization of the best samples of design solutions which confirm the formation of the concept of «naturalness» in the design of hospitals for children, helps to master the techniques of enrichment of design solutions

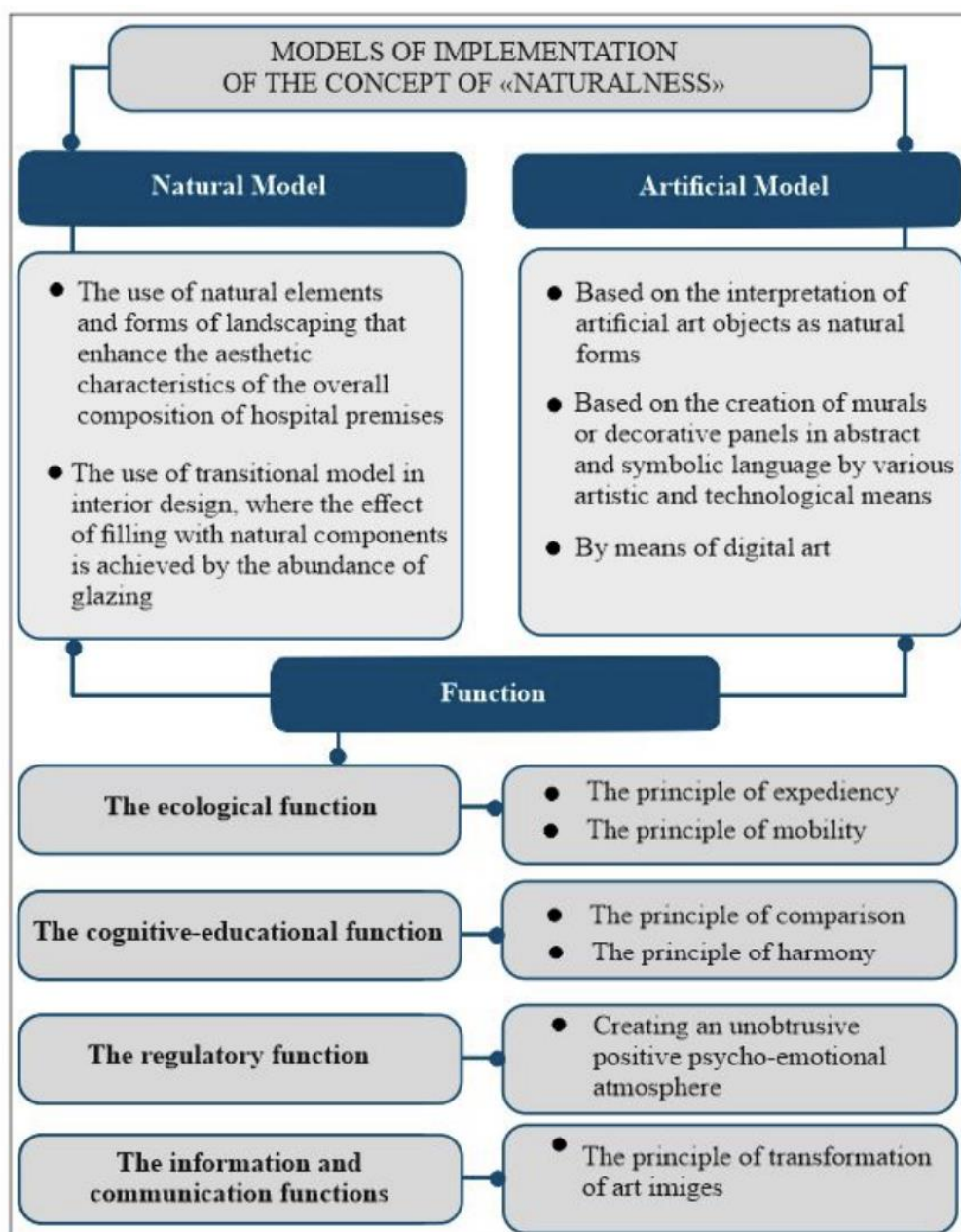


Figure 9. Models of implementation of the concept of «naturalness»