# Peculiarities of Design of Modern Educational Space of Artistic Direction of Higher Education Institutions

# Particularități ale proiectării spațiului educațional modern în domeniul studiului artistic al instituțiilor de învățământ superior

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**Abstract**

The article analyzes the factors influencing the design of modern educational spaces in higher education institutions in the context of training future designers. The definition of the learning environment is provided as a set of specific material, communication and social conditions that make up the processes of teaching and learning. The division of physical learning environments into formal and informal is considered according to the functional purpose and form of interaction of the subjects of the educational process. The definition of formal learning environments in universities is provided. The interrelation of the organization of formal learning environments with the form and way of interaction, relevant to the current educational discipline, of the teacher with students and between students is

considered. The functional features of the organization of the formal educational environment are determined. The needs of students that can be satisfied using informal environments in universities are established. The necessity of introduction of modern innovative technologies is considered. The list of factors is established that directly affect the design of the educational environment and which are largely caused by transformational changes in the educational process in Ukraine and the world.

**Keywords:** educational environment design, student coworking, informal learning spaces, formal learning environments, professional competence, interior design.

**Rezumat**

În acest articol se analizează factorii care influențează proiectarea spațiilor educaționale moderne din instituțiile de învățământ superior în contextul formării viitorilor designeri. Definiția mediului de învățare este oferită ca un set de materiale specifice, comunicare și condiții sociale care alcătuiesc procesele de predare și învățare. Divizarea mediilor de învățare fizică în formale și informale este considerată în funcție de scopul funcțional și forma de interacțiune a subiecților procesului educațional. Este oferită definiția mediilor formale de învățare în universități. Se are în vedere interrelația organizării mediilor formale de învățare cu forma și modul de interacțiune, relevante pentru disciplina educațională actuală, a profesorului cu elevii și între elevi. Sunt determinate caracteristicile funcționale ale organizării mediului educațional formal. Sunt stabilite nevoile studenților, care pot fi satisfăcute folosind mediile informale din universități. Este analizată necesitatea introducerii tehnologiilor inovatoare moderne. Se stabilește lista factorilor care afectează în mod direct proiectarea mediului educațional și care sunt în mare parte cauzați de schimbările transformaționale ale procesului educațional din Ucraina și din lume.

**Cuvinte-cheie**: proiectarea mediului educațional, student colaborator, spații de învățare informale, medii formale de învățare, competențe profesionale, design interior.

**Problem statement.** The requirements for the quality of training of a modern specialist in the field of design change as a result of humanization of the society, rapid development of social and technological innovations, and transiency of design trends. In order to be competitive and in demand in their field, art graduates of an institution of higher education must possess professional qualities necessary to solve problems in design, have mature figurative thinking, artistic style, communication

skills. A student acquires these competencies thanks to close interaction of the components of the "teacher – student – educational environment" educational process model. For the most effective work of the whole model, it is necessary that each of its components be updated in accordance with modern requirements: the teacher must transfer the relevant knowledge in a form that is accessible to students taking into account the psychology of perception and involving appropriate technologies of pedagogical interaction; the student must be an active participant in the educational process; and the learning environment should facilitate the easy assimilation of information and stimulate the research potential of the students and their desire to improve their skills. The environment of most higher education institutions in Ukraine is formed rather conservatively and needs to be reorganized in accordance with the modern educational process.

**Analysis of recent research and publications.** The educational process aimed at developing the professional qualities of the future designer's personality is analyzed in the works of scientists in terms of competency-based and psychological approach. O. Troshkin theoretically and experimentally substantiates the pedagogical conditions for the development of initiative of design students on the basis of a personality-oriented approach to the organization of educational and creative activities [6]. In their study, Luisa Collina et al. [8] offered a combined model of teacher-student interaction, in which the classical relationship between teaching and learning is considered through the lens of active and passive knowledge exchange, emphasizing the evolution of learning space in which analog and digital, physical and intangible aspects contribute to improvement of relations between different subjects of the educational process. The research of Sapugol'cev V. Ju. [4] is dedicated to the identification of psychological and pedagogical conditions for the development of creativity as a personal individual psychological quality of a specialist, which characterizes his or her success in creative activity.

The topic of organization of learning environments is systematically studied by the Society for College and University Planning, USA, in their study "Research on Learning Space Design" [10] which provides an assessment of the current state of research on educational environments and factors influencing the effectiveness of the educational process as a whole.

Among the recent works of foreign authors on the peculiarities of the formation of formal and informal educational space in

institutions of higher and secondary education, the analytical data of the implemented cases attract interest. Reorganization of the environment of the University of Abertay (Dundee, Scotland) [11] allowed to increase student satisfaction, expand the functionality of the use of classroom space in extracurricular activities, what led to increased student self-organization, interdisciplinary integration in project activities, involvement of students of different levels in projects. A team of researchers from the University of Teesside (England) analyzes the effect of the renovation of the library's premises aimed at giving students the opportunity to choose the places that best meet their needs on the level of their involvement in independent learning. The key factors in the design of the new environment were identified by the authors: technological equipment, flexible planning of work areas due to mobile furniture, visually impressive creative spaces to motivate and improve student performance [9]. The experiment of the University of South Wales (Pontypridd, UK) describes testing of various solutions for the placement of furniture in classrooms during the year, and thanks to positive feedback from students and staff, the study revealed a number of recommendations for updating university classrooms, such as: substituting furniture with multifunctional 'transformer' furniture, organization of furniture centers for group work, possibility of using small technical rooms near the auditoriums as areas of individual and post-lecture work [12].

**Aim of the article** – to determine the organizational characteristics of the modern educational environment needed to train future designers.

**Research results.** Training of a modern designer requires solving the problem of combining student's skills in two opposite directions. On the one hand, he or she must have traditional design tools and be able to perform typical, sometimes routine, tasks using a variety of materials providing high level of quality. On the other hand, in addition to performing typical practical tasks, a designer is expected to show creative novelty, originality and non-standard creative solutions.

In his study of educational environment of the institutions of higher education in the context of the development of students' creativity, V. Ju. Sapugol'cev [4] identified two groups of conditions for motivating creative activity and the nature of creativity: internal (subjective) and external (objective). Internal conditions include genetic preconditions (inclinations; type of higher nervous activity; accentuation of character; peculiarities of mental processes); general culture and erudition of students; the

existing level of formation of internal motivation for creativity. These factors determine the specifics of differentiated work of the teacher with each student: the feasibility of inclusion in the group or the need for individual work; learning rate and the time of creativity disclosure; motivational stimuli and possible reactions to their rejection or acceptance.

According to the author, one of the objective (controlled) external conditions of creativity development of design students is educational environment whose perception is influenced by psychological and pedagogical factors such as: specifics of classroom educational process (content and relevancy of educational material, using active problem-searching nature – heuristic methods of knowledge transfer such as conversations, debates, project technologies, etc., instead of passive explanatory-reproductive methods; specifics of extracurricular educational process (interaction with external specialized organizations, productions and cultural institutions, participation in competitions and exhibitions, meetings with famous designers, including graduates of the faculty); teaching staff (gaining credibility among students and demonstration of professionalism, value-based and responsible attitude to creativity, profession, business and people); characteristics of the image of the educational institution (rating positions of the institution, visual impression of the building, the environment of classrooms and workshops); special external situational motivation of creativity (psychological and pedagogical techniques that promote external positive motivation: self-respect, competition, success, personal growth, satisfaction from experiencing intellectual and aesthetic discoveries of creative activity) [4].

The level of preparation of an art graduate of an institution of higher education is largely determined not only by psychological and pedagogical factors influencing the educational process, but also by the peculiarities of the educational environment, which should be professionally oriented, stimulating artistic and creative activity associated with the formation of the student's creative approach to solving problems.

Learning environment is the relationship of specific material, communication and social conditions that support the processes of teaching and learning. Active interaction and mutual influence of the environment with the subject of training are needed. Learning environment encourages the development and correction of cognitive processes of the student's personality, forming a complex of knowledge, skills and abilities [2].

The Law of Ukraine "On Education" of 5 September, 2017, [1] divides education into the following types: formal, non-formal and informal (self-education). The uniqueness of higher education institutions is that they are able to use the learning environment to provide students with opportunities to acquire knowledge and skills of each type of education.

According to the report of the Society for College and University Planning (USA) from the study of the design of educational space in terms of planning structure, it can be divided into formal and informal [10]. Formal environments include the premises of the institution of higher education, which are intended for conducting various forms of classes in accordance with the curriculum – classrooms, studios, laboratories, specialized workshops, etc. Their organization should correspond to the form of pedagogical interaction between a teacher and students during the educational process: communication of the teacher with all students, team work, work in pairs, in small groups, or indirectly should all be taken into consideration. Therefore, formal learning environments should be multifunctional, multi-purpose and easily adaptable to each of these types of interaction. The authors of the report [10] identify three types of non-formal learning spaces for extracurricular learning: non-formal learning spaces integrated into a library; non-formal learning spaces integrated into gathering spaces; non-formal learning spaces integrated into corridors.

The purpose of organizing a non-formal learning environment in universities, in addition to providing a comfortable space for resting and doing homework, is to encourage and involve students in self-education, development of their problem-solving skills using an interdisciplinary approach by expanding contacts with senior peers and students with other specializations.

The authors of the article researched student coworking in higher education institutions [5], which in turn are a form of organization of non-formal educational space in higher education institutions.

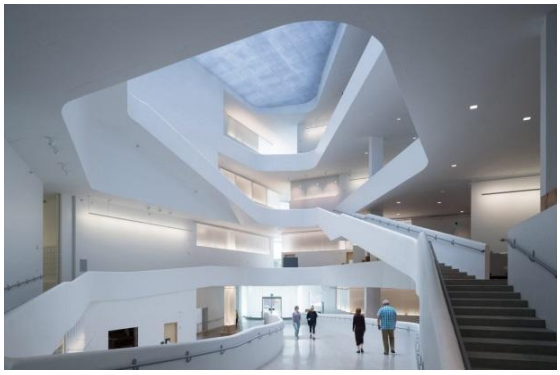
Given this fact and analyzing the experience of designing modern foreign art and architectural schools (Fig. 1), it can be concluded that the integration of formal and non-formal educational space is one of the important tools to achieve the goal of organizing a highly effective learning environment.

Thus, as research has shown, changes in modern design education take place at the level of its main components: design methodology that provides ontological competencies of specialists;

ways to integrate design into production processes (marketing, communication competencies); instrumental training of students, based primarily on computer simulation.

a

b



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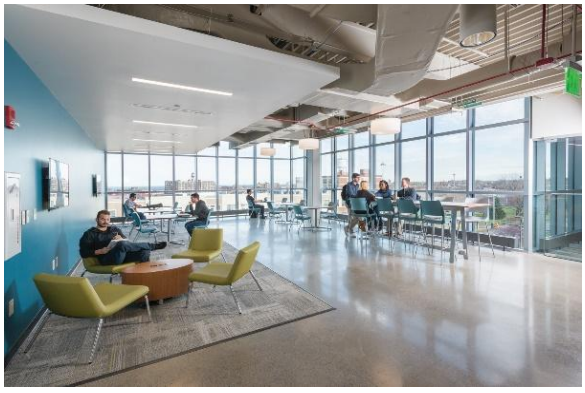

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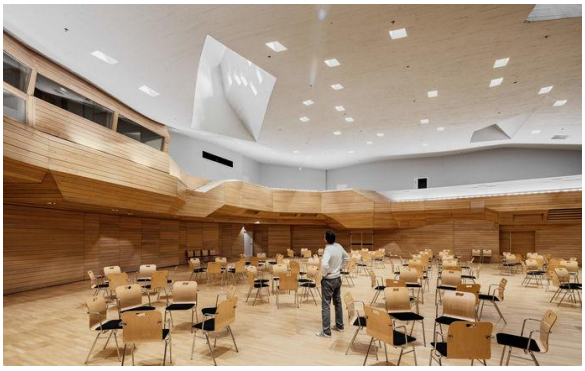

**Fig. 1.** The interiors of modern foreign art and architectural schools.
**a** – Massachusetts Institute of Technology, School of Architecture + Planning (Massachusetts, USA);
**b** – The University Of Iowa, School of Art and Art History (Iowa, USA);
**c** – Cleveland State University;
**d** – Washkewicz College Of Engineering (Cleveland, USA), Aalto University (Otaniemi, Finland)

Based on the analysis of global changes in education, economy, society, etc., the experience of designing the world's most successful design schools, the following factors were identified to influence the design of the premises of universities:

1. Pedagogical – changes in the forms of pedagogical interaction of the educational process participants, associated with current trends in methodology and design methods designed to reveal the creative potential

and abilities of students in the learning process. Such factors affect primarily the functional zoning of premises, the choice of furniture and equipment.

2. Technological – the use of the latest technical means and virtual services, the integration of cloud, online and virtual technologies in the learning process. Modern multimedia and computer equipment is becoming a full-fledged component of classrooms for design students.
3. Ergonomic – consist of such general and specific factors of creating a comfortable educational environment as sanitary, physiological, psychological ones.
4. Integration or competence – acquisition of competencies through interaction with stakeholders, organization of professional communities and platforms. Such factors require the creation of special communication spaces on the basis of university facilities.
5. Marketing – commercialization, participation in world rankings (QS World University Rankings, The Times Higher Education World University Rankings), conducting external educational and promotional activities aimed at expanding the market of educational services and competitiveness of the institution. Marketing factors stimulate demand for improving image characteristics of educational institutions, which include not only ranking position in terms of demand for its alumnus in the labor market, but also the visual impression of the building, artistic and aesthetic properties of interior space

**Conclusions.** It has been revealed that the learning environment for the development of professional qualities of the future designer is one of the most important means of acquiring knowledge and skills, apart from psychological and pedagogical factors influencing the educational process. It has been established that the mutual integration of formal and non-formal educational space is one of the important tools for organizing a highly effective learning environment; also, the main factors influencing their design have been identified. Formal and non-formal learning environments should ensure the compliance of the functional-planning structure with the needs of teachers and students, and they should also correspond the models of their interaction. The factors identified during the study determine the two main features of the modern educational process: organizational – the integration of formal and non-formal education, taking into account the interaction of all participants in the

educational process; environmental – the use of the principles of dynamic architecture and flexibility of space.

**Prospects for further research.** For further directions of research should circumstance a list of factors, that directly influence the design of the educational environment and are largely influenced by transformational changes in educational process in Ukraine and in the world.

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