

# The Processes of Technocratization in the Profession of the Designer

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## Abstract

In a review article of the authors of a number of publications in the field of arts and design environment based on the content analysis of publications by foreign and Russian experts in the field of design, design-design and design thinking is estimated the place and role of the profession of the designer in modern society. Analyzes the epistemology of the notion of "design" and such related concepts as "design-design", "design study", "design thinking". Explores the problems of correlation of scientific and creative component in modern design-the design and discusses the processes associated with technocratically creative professions, followed by "technical extension of the person", received a special urgency in connection with the development of computer technology. The article reveals the unity and conflict between personal and technocratic in design, is a prominent representative in some other creative or creative professions. The authors stress that the creative professions are at the intersection of science and art and require creative search and detailed analysis, using the achievements of modern science. They form the environment surrounding a person, defining its social and individual consciousness. This technocratization leads not only to the transfer of functions for creating the environment to external to man adaptations and tools using the latest computer technology, but also leads to alienation from man-Creator of the most creative ideas. Thus, the designer can be alienated from his design of the entity. Modern projective society can deprive a person of independent design, frees him from the need to make the product, to own, manage and control at their own discretion. For him these design function often successfully implement new engineering technologies. In this connection it is necessary to be aware of both the advantages and the dangers inherent to the process of creation of scientific-technical progress.

**Keywords:** creativity, art, engineering, design, technocratization, "technical enlargement of man", a creative profession, creative class

## 1. Introduction

One of interest to the authors of the problems of the relationship between science and art, analytical and creative skills in creative professions, in particular in the design. No less interesting and topical problem of technocratization modern artists, raising the question of whether the right of possession of creative idea in terms of so-called "technical extensions of man". In connection with rapid development of computer technologies of data and images in a variety of analytical and graphical programs, these issues have received special urgency that generates the need for scientific analysis of the ongoing processes and urgency of assessing the place and role of the profession of the designer in modern society.

The profession of a designer as a separate stand out relatively later than other artistic and creative professions and appeared to counterbalance the increasing technologization and urbanization social life, the result of a major revision of the conceptual bases of the interaction of artistic and technical creativity. However, the "young age" of the profession does not reduce the high status it becomes today in solving problems of spiritual enrichment capacity in socio-cultural practice of the individual and society as a whole.

The increased interest in the profession of designer, currently represented by the fact that more than eighty higher education institutions provide training in various fields of design. Among them - the profession of designer clothes, a special role and attractiveness lies in the fact that it is most closely connected with the

individual, with diverse areas of his life, contributes to the realization of his artistic, aesthetic, moral and other needs. Therefore, the profession of fashion designer finds not only professional, but also of social significance, and the training of this type design is subject to huge liability.

Also a special significance of design and interior design gains in many sectors and fields of activity, without actual design decisions is not possible existence of modern hospitality and tourism industry as a whole. When developed competition, design design solutions allow companies to compete in the market and get more profit. (Kryukova & Sokolova, 2014; Kryukova et al., 2014)

The development of this profession in the system of higher education is related to the implementation of many educational tasks, but a special place here belongs to shaping the future of the designer's aesthetic attitude to their profession, to its various aspects, which in turn is determined by the specifics of the last of its aesthetic and creative nature.

The urgency of this task is also supported by the fact that in the theory and practice of training future designers predominant emphasis on engineering their equipment, and much less attention is paid to the development of emotional and aesthetic aspects of personality of future specialists. Many authors (Boling, 2010; Gagnon & Collay, 2001; Gunther & Ehrlenspiel, 1999; Jones & Lloyd, 2013; Lloyd, 2011; Gennesaretski, 1990; Efimov et al., 2005) in their publications note that the above task should be included in the priority, because it is directly connected with the most important requirement of modern Wu-sovskoy pedagogy about the necessity of creating conditions for the accumulation of future professionals experience the emotional-aesthetic relationship to the environment, to different sides of their professional activities.

To date, the designated task in the field of University education designers, as shown specifically our analysis, yet have not taken the proper status is carried out both in theoretical and methodological terms is still weak. Thus, revealed the contradiction between the recognition of the special importance of the aesthetic attitude to the profession of the future designers and the lack of science-based solutions to this problem allows us to formulate the problem of this study, which is expressed in the following: by any pedagogical conditions and means of the process of formation of aesthetic relations at future designers to the profession will be successful and effective, and how the process of technocratization affects the training of future designers.

## 2. Method

This article is an overview and is based on content analysis of secondary data - opinions foreign (Boling, 2010; Gagnon & Collay, 2001; Gunther & Ehrlenspiel, 1999; Jones & Lloyd, 2013; Lloyd, 2011) and domestic specialists (Gennesaretski, 1990; Efimov et al., 2005) in the field of design, design engineering, design thinking, marketing management, presented in various professional publications, mass media, including the Internet. In addition, we used the methods of logical analysis and expert estimates made by the authors of this publication, with the works in the field of artistic creativity (Kovalev, 2011; Kovalev, 2013.) the design environment (Arkhipova & Arkhipova, 2014; Arkhipova et al., 2014), design education (Arkhipova et al., 2014; Startceva et al., 2013).

To test put forward in this article hypotheses and solving the tasks you used the following set of complementary techniques:

- Theoretical - scientific analysis and synthesis of the leading categories of research;
- Method of induction and deduction;
- Empirical - focused pedagogical supervision, direct and indirect;
- Polling methods (questionnaires, interviews);
- Study and generalization of experience of teaching special disciplines in the university system of training of designers;
- Experimental work.

## 3. Results

The need for development of a design culture has led to the need to create a new type of education, new educational, pedagogical system, called "design education". Design education is understood as a specific teaching area, allowing to extrapolate methods and tools of design culture at all levels of education. The appearance of design education is a factor in the penetration of design culture in education.

Modern projective society can deprive a person of independent design, frees him from the need to produce a product to own, manage and control at their own discretion. For him these design features is often successfully

implement new design technology. In this connection it is necessary to understand both the advantages and the dangers inherent to the creative process of scientific-technical progress.

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#### 4. Discussions

The term "design", derived from Latin "designare", denoting the verbs "to measure", "plan", began to be actively used in the different languages of Europe in the XVI century in the related concepts: in English "design" - the idea, plan, intention, purpose. In Italian, in combination with the term "idea" ("disegno intero") meant concept art, born artist. Oxford dictionary 1588 gave the following interpretation of the design "conceived by man a plan or scheme of something that will be performed, the first draft of the future work of art" (Arkhipova, 2013.).

Modern dictionaries give different interpretations of the design:

- Creative activity whose aim is to define the formal properties of industrial products;
- Inextricably interdependent relationship aesthetics and technology in which technology sets the content (substance) of a thing or process, and the aesthetics of its form;
- Activity on designing of the objective world;
- Development of models of rational building subject of the environment and so on.

Along with the above definitions, the notion of "design" is also used in sociological Sciences and marketing for the characteristic part of a research project aimed at identifying consumer preferences, the so - called research design. The design of the study appears in response to the need for assessment of the perception of a new product, to explain the meaning of the concept of design projects, to ensure bring it to consumers. Research design helps designers specific project and managers of the client company to identify problems that may occur with the end users of the design project. The main goal of the research design is to study the process of communication and consumer product. According to the designer K. Ivleva in project implementation Toolkit design research gives the opportunity to immerse themselves in the existing situation, put it into components, to understand where and what doesn't, to come to the global output of functioning of all systems of the project or product.

Along with the concepts of "design study", "design", the term "design thinking" is a special type and culture of thinking, based on the project culture. About it have started talking more than 30 years ago as foreign (Alan Cooper et al., 2007), and domestic experts in the field of design theory (Jeff Patton, 2008). For example, O. Genisaretski (VNIITE) outlined the design culture as a "third culture".

According G. Minervin and A. Yermolayev, the designer is similar to marketing manager, forming the concept of a new product launching it in production, creates from raw material, products, simultaneously satisfying the interests of producer and consumer (customer). And now there are almost no items used for domestic, public and industrial needs, which are not designed by artists and designers, the demand for which is identified or generated by marketers. Thus, the design of specific activities related to the design of all objects of the human environment: from household items to the instruments of production, from the decoration of residential premises to the complex equipment of industrial enterprises"(Genisaretski, 1990).

Elaborating on his definition of design as an activity, which aims "to begin to change the human artificial environment", the English theorist design J. Christopher Jones notes that "it encompasses not only designers, architects and other professional designers, but also planners and economists, legislators, administrators, journalists, scientists, specialists of applied Sciences, the participants of the protest movements, politicians, members of the "pressure groups" - all those who seek to change the form and content of products, markets, cities, systems of consumer services, public opinion, laws etc." (Efimov et al., 2005)

Such a specific role and a broad penetration of design in modern life defines a very wide range of problems associated with this area of professional activity, to a greater or lesser extent reflected in this publication.

##### *4.1 The Unity and Conflict between Individual and Personal and Technocratic in Design*

Environment, including the human being, is the object of artificial impact, indirect and reinforced all the power of modern technology. The environment is designed, that is artificially created and managed. The environment today is the fruit of human reason, artistic creativity and the use of modern technologies. This relates directly to the activity of artists and especially designers, as they are primarily oriented towards creating an artificially created environment.

Today, representatives of creative professions, forming environmental space man as outside, and inside of a person, called the "creative class" (Jones, 1976). These professions at the interface of science and art, require creative search and detailed analysis, using the achievements of modern science. It is not only designers, and marketers, specialists in advertising and public relations, journalists, bloggers, writers, filmmakers, politicians and representatives of other professions, shaping not only the human environment, as well as public and individual consciousness of a modern person.

One of the defining trends of social development is technocratization. For this trend, you can use the accepted term "external extensions of man", first introduced E. Hal (Florida, 2011.) and subsequently used H. M. McLuhan (Edward, 1959; McLuhan, 1964; McLuhan, 2007) and other specialists. Well-known anthropologist wrote that to the present time humanity has created a great number of different technical devices that duplicate transactions and operations performed by the man himself. This evolution utilitarian things and the means of production has expanded the capability of the human body and mind.

Assessment of the situation of technocratization varies until opposites different researchers. Always heard the warning cries about the threat of dehumanization, which carries one or another technical innovation. When was invented photography, many spoke of the imminent disappearance of fine art. With the introduction of the cinema started talking about the death of the theatre. The computer frees man from the need to consider, to think, to draw or write music for him all this and with increasing success makes computing machine. The company becomes one hypermachine in which all the parts agreed with each other, and move, regardless of the subjective will of man. On the contrary, even people in hypermachine turns into a small cog, all the movements which are detailed in numerous instructions and rules of conduct, deviation from which is not allowed.

#### *4.2 Features of Training Designers in the Education System*

Professional activity designer is very versatile. It combines knowledge and skills in different areas of human life. Initially, the objects and things that surround people, made the artisans.

Design the design is characterized by certain specifics, subject to the General laws and methods of traditional types of design: architectural, technological, engineering, etc. however, the interior design (or rather, the architectural environment) differs substantially from them. The nature of the proposed object "habitable environment" is revealed necessarily involving the content of the concept of "human factor", which is an integral characteristic of human connections and the subject of the environment, manifested in the specific conditions of their interaction with the system associated with the achievement of specific goals.

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The design of the environment cannot be reduced to taken by itself (activity), subject (functional and technical means), space (layout, volumes). Architectural environment belongs to the category of objects that are characterized by a comprehensive, systemic qualities. Required fundamental property of the design-forming environment is integrated as an Assembly of different actions and activities aimed at obtaining a holistic, pre-conceived result. Therefore, the skills of a specialist designer should be wider horizons and expertise in all areas of human life. The modern way of life and culture, in addition, influenced by greening, i.e. the pursuit of optimal ratio between the world of the living and the living environment. The result is the convergence of environment and culture (cultural ecology), is the concept of combining architecture, industrial design, visual communication, as well as crafts and fine arts.

#### *4.3 Development of Design Art and Its Influence on Design*

Modern stage of development of design and art, which fully owns and design and architecture, characterized by this feature. There is integration of objectives, methods and secrets. The fact that in reality we are not architecture and design separately, and their inseparable unity. The modern city is unthinkable without cars, advertising and landscaping, and interior -- without household equipment, furniture, decorative items and media. And to design the look of the street or building structure without regard to their subject filling hopelessly abstract beauty "empty" space will be distorted and even mutilated unplanned but required for life invasion functional design. The only solution is to design a complex subject-spatial composition, synthesizing architectural and design the beginning of the circumstances of our lifestyle. (McLuhan et al., 2009)

The design activity is not only practical means of design. Another part are the methods of scientific analysis, classification, etc. used in physiology, social psychology, ergonomics and other Engineering and inventive ideas, knowledge structures and materials, engineering equipment of buildings is an important factor in the choice of means forming environment. In the project design take into account the requirements for lighting, acoustics, temperature and humidity regime, water supply and sewage, ventilation, power supply, fire safety.

And, of course, the Arsenal of professional artistic means the designer is a graphic design and graphics, color and flavor, plastic and dynamics, all the techniques and methods of formal composition. In the preparation of future professionals, it is important not to miss any one of these areas of knowledge. The synthesis of art, engineering, psychological, ergonomic and other knowledge - a distinctive feature of this profession.

The environmental approach has led to a strengthening in the process of conceptual design, environmental and ethno-cultural aspects and other activities. The need for an integrated and holistic solutions to environmental situations put forward as the main problem the question of the synthesis of funds of certain types of creativity involved in the task of designing functionally appropriate, technically, aesthetically expressive objects comprising in combination the optimal environment for human life.

The focus of the designer of the architectural environment is always a person of his personal and public queries, utilitarian and aesthetic needs. A system of principles and laws that reflect the complexity of human relationships with the surrounding object-spatial world, can be expressed in four groups of requirements: social, utilitarian and functional, ergonomic, aesthetic and economic.

The designer creates new things, fixing on a new level of traditional methods, or building new forms of organization of the subject environment. Actually, there are two processes: the transformation of the world by the designer and change the world consumer. It is obvious that only in the common areas is a productive dialogue between the designer and the consumer. Design is the creation of professional and client, as when designing individual living space, and public. The influence of the customer on the formation and final realization of the image and the idea is great (he who pays the Piper calls the tune). The last and important professional as a designer should be able to make, reasonably defend, justify the idea, to communicate with the customer and the contractor. Rhetoric, psychology, sociology is an absolutely necessary discipline in specialist training.

Thus, design education is professional education, requiring additions large number of related disciplines (engineering, economic, psychological and other), which should be studied at least as an elective. Only through the synthesis of all these knowledge will be generated design thinking expert. The curriculum should be constantly aware of changes and needs of modern life and industry, because at the moment, with the training of designers there is a greater emphasis on the disciplines of art block.

#### *4.4 Design Education and the Processes of Technocratization*

Design education is a special quality and type of education, which is education of design - thinking person in whatever field of social practice he acted - education, science, cult-d, manufacture, domestic sphere, etc.

Designing a new education, it is important not to lose sight of prochnosti as the content of education, as a specific generic type and culture of thinking, which should play in education.

Purpose, logic, content, and methods of professional training of designers in high school was determenirovana the specific activity of the designer in the professional sphere. Design is considered as a special type of project activity, the main part of which is artistic and design creativity.

The level of aesthetic needs of the modern man places high demands on the product design activity and entails the search for new design solutions, taking into account the previous socio-cultural experience, but based on scientific achievements in the field of new technologies. Quick change aesthetic needs, science and technology oriented professional to strategy ahead of chronological time. This approach to professional design problem calls for a revision of the methods and conditions-Vij training designers, developing flexible and adaptable to the changing conditions of pedagogical technologies. Special attention in the educational process on the formation of socially active and creative individuals capable of independent, creative productive artistic and design activities.

### **5. Conclusions**

Modern man lives in a planned society, but as designing creature he had already ceased to produce, transmit, store design-project information. Increasingly, these functions adopt external to man fixtures, tools, using the latest computer technology. Internal creatively producing and reproducing designer essence is alienated from the man-the Creator, the source of ideas and taken outside - in external expansion, and new proactive technologies.

Man is the only performer, sometimes without understanding the meaning and values of those design processes, performer he is. As the executor of an alien essence, he is deprived of the possession of creative design. For him, the design is only reduced its part or specific technical segment, having forced and instrumental character, enjoining him strictly regulated behavior in certain situations, relieving it of the need to try to understand it and to make conclusions. As a result of difficult for him to prove himself as the Creator of a design project, and as a consequence there and issue further orders and property management of the result, the end product.

The main conclusion that can be done is the following: if in industrial society, the people were alienated from his essence manufacturer's production values, now, in the era of so-called "projective" society, he alienated from his design of the entity. Projective society deprives a person of design, frees him from the need to update them to own, dispose of and manage. For him these design features more successfully implement new engineering technologies.

We should understand the benefits and dangers, which is the process of creation of scientific-technical progress, in order to be able to use its positive aspects and avoid caused them problems, putting the achievements of civilization in the service of humanity.

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