



Design Education in European Countries: Great Britain and Ukraine

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Abstract. In this study, consideration was given to the evolution of design education in the UK and Ukraine. A review was conducted by comparing the following main parameters of the design education sphere in both countries: the historical background of its emergence in the 19th century, the dynamics of the development of higher institutions of design education during the 20th century, as well as quantitative and qualitative indicators of design education at the beginning of the 21st century. In the conclusion, two main polar properties of contemporary design education were defined, namely: the ability to prepare for gradual entry into modern practical work/business on the one hand and thorough classical artistic preparation on the other. It has been suggested that with humanity approaching the super-hi-tech era, the tendency design education in Ukraine, unlike in Britain, towards the second of these properties has a positive potential in preserving human-centric values in contemporary design.

Keywords: *design education, Great Britain, comparison, quality of design education, Ukraine*

1 Introduction

Modern design education is experiencing a stage where the global system of design values is being transformed. The driving force behind this change is that after the post-industrial era, the super-hi-tech era of artificial intelligence, which carries a number of risks associated with the destruction of fundamental human values, is already coming into view. Consequently, the design sector now faces the risks of a transition to an excessive artificial high-tech orientation, neglecting traditional aesthetic values.

In this context, the authors of this paper aimed to find out what useful conditions for the design education field can be reached, based on a comparison of its features in the UK and Ukraine. Such a comparative analysis has not been

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carried out by anyone so far. Along with this comparison, other European countries will also be mentioned in order to clarify certain details.

2 Methodology

The main methodological principle in this research was a comparative approach that allowed us to characterize the peculiarities of the evolution of design education in the countries under consideration. This was supported by methods of art analysis based on historical and systematic approaches.

A historical approach was used by analyzing the historiography of the research topic for the holistic consideration of scientific sources on the history of the development of British and Ukrainian design education. This made it possible to present the historical sequence of the emergence of design schools.

As sources for the research, works of British and Ukrainian art historians and design-education practitioners that were published in the UK and Ukraine were used. This gave the opportunity to highlight the evolution of design education in these countries in a holistic way. The sources of information were Internet resources, which made it possible to present quantitative indicators for universities with design departments, as well as data on the number of design education institutions per head of the population.

During the preparation of this paper, also data from the curriculum of some of the leading design education institutions was used. This made it possible to estimate the quality of education, the main opposite poles of which are an emphasis on preparing the student for a quick entry into business on the one hand and an emphasis on the fundamental, classical artistic and design tutoring on the other hand. When it comes to questions about the correctness of making comparisons between the design and education spheres of one of the most developed design countries and of a country that is little known in this regard, the answer is: design is an artistic activity that is not measured by meters, kilograms or decibels, and global practice shows examples of interesting artistic schools in places that are not leaders in the realm of economics, finance, industrial opportunities, etc.

3 Historical Sequence of Emergence of the First British and Ukrainian Design Schools in the 19th Century

Especially during the second part of the 19th century, in the United Kingdom many schools and colleges were opened whose activities were aimed at training specialists for various industries. The first art and industrial school, the Royal College of Art (RCA), was founded in London in 1837 as a government school

of design for training students in the field of ‘decorative art’. Eventually, this institution was renamed as the National Art Training School and since 1896 it is called the Royal College of Art.¹ In addition to the Royal College of Art (RCA), which is currently the most well-known educational institution in this area, several more art schools were created in London: the Art School of St. Martin (1854). During the 1890s were opened: the Hammersmith College of Arts and Construction; the St. Bride’s Foundation Printing School, which later became the London College of Printing; Chelsea School of Arts; Central School of Arts and Crafts (later transformed into Central School of Art and Design); the Camberwell School of Arts and Crafts founded by the Technical Council of Education of the County of London.

Educational institutions in the field of fine arts and artistic decoration of industrial products were created not only in London but also throughout the rest of the country. The second oldest art school in the UK after the Royal College of Art (RCA) is the Manchester School of Design (1838). Located in the northwest of England, it became known as the School of Arts in 1853, and was later renamed as the Municipal School of Arts. In 1880 the school began to admit female students; at the time it was the only institution of higher education available to women. Today, the Manchester School of Design, together with the Manchester Institute of Mechanics (1824), the Schools of Commerce (1889), Education (1878), National Science (1880), and several colleges in Didsbury, Crewe, and Alsager are part of Manchester Metropolitan University (MMU). Leeds College of Art was founded in 1846 in Leeds, West Yorkshire. The Edinburgh Government School of Arts was founded in 1858. In 1903 it was united with the School of Applied Arts, and in 1907 became the Edinburgh College of Arts. The School of Arts and Design in Cardiff (Wales) was opened in 1865.

Table 1 Comparative Table of the Sequence of Emergence of the First Design Schools, 19th Century.

Years	United Kingdom	Ukraine
1830s	2	
1840s	1	
1850s	1	
1860s	1	3
1870s		2
1880s		3
1890s	5	2

¹ Here and onward the materials were taken from the websites of the corresponding universities.

At that very time, in the second half of the 19th century, Ukraine did not have such a large number of art and industrial schools. At the time, one part of Ukraine belonged to the Russian Empire and another part belonged to the Austro-Hungarian. This situation imprinted itself in all manifestations of life, including the formation of design education. Because of this, the processes that took place in Central, Eastern and Southern Ukraine had many common features. Along with all of this, they were somewhat detached from developments in the rest of Europe. As for Western Ukraine, the formation of artistic and industrial education took place within the framework of European art processes.

The Austro-Hungarian monarchy, i.e. the Habsburgs among others, sought to establish a link in the field of culture and art between the artistic concepts of Vienna and Lviv. In Vienna's higher educational institutions and artistic and industrial schools, dozens of scholars from Galicia studied annually. At the same time, numerous schools of craftsmanship developed in the cities of Galicia and Bukovina (these are the regions of Western Ukraine).

As for the development of artistic and industrial education in Central, Eastern and Southern Ukraine, there were three main art centers: Kyiv, Kharkiv and Odessa. During the period of the Russian Empire, in the last third of the 19th century, artistic and industrial schools emerged and developed in these cities. In Odessa (early 1865), in Kyiv (early 1866), in Kharkov (early 1869), in Kamyanets-Podilsky (1890) [1], Myrgorod (1896) and others. In one of them, M. Raievskaya-Ivanova's School of Drawing in Kharkov, a design style with a special frankness dominated [2]. This happened due to the fact that at that time Kharkiv was a powerful center of machine building. The pace of its industrial development (along with the Donbas) significantly exceeded the pace of other regions of the Russian Empire at that time. That was due to the feverish industrial and financial boom in the so-called Southern industrial region (southern in relation to the territory of the empire). In addition to the industrial boom in Kharkiv, the artistic and industrial education system grew. Its foundation was formed by two educational institutions: the school of M. Raievskaya-Ivanova (1869) and the Imperial Kharkiv Institute of Technology (1885), where the methodology of training of engineers comprised elements of artistic instruction [3]. This means that it was in Kharkiv that the first germs of industrial design education in Ukraine sprouted.

Artistic and industrial education was expedited in Western Ukraine but it had a decorative and practical direction. There were artistic and industrial schools in Lviv (1876), Kolomyia (1876), Kosovo (1882), Stanislav (1883) and other places. The level of development of some schools was quite high; there is a lot

of evidence about this. For example, the opinion of Dr. W. Eckner, an adviser to the Austrian Imperial Court on artistic and industrial education was as follows: the most talented and most interested youth from all the regions of Austria-Hungary “are leaning to the Galician and Bukovynian schools”. He came to this conviction after an official visit to the most significant of them. This happened in the 1890s [4].

4 Evolution of British and Ukrainian Design Education in the 20th Century

4.1 The First Half of the 20th Century

In the UK, realizing the need to improve the aesthetic and functional parameters of industrial products, the government in the early 20th century began an educational reform in the field of art, which resulted in the integration of artistic and technical educational institutions. Within this reform, a separate structure was created for bringing together the efforts of representatives from trade, production and design (similar to the German Werkbund). It was emphasized that ‘good’ products should comprise not only technical innovation, but also cost-effectiveness in the use of materials, rationality in the use of certain technologies, etc. To achieve this, it was programmed to introduce a multi-level training system, starting with art schools and technical colleges throughout the country (Glasgow, Manchester, London, etc.), and to develop training programs that would meet the objectives of industrial art. The First World War hindered these undertakings.

After the war, the United Kingdom authorities returned to design issues. During this period, the British actively studied the experience of foreign design universities. In 1932, a group of leading designers from the United Kingdom visited the Bauhaus School, then headed by Ludwig Mies van der Rohe and stationed in Dessau. The representatives of the British delegation were impressed by the creative atmosphere of the school and the close connections between representatives of creative disciplines (painters, sculptors, architects, graphic designers) and designers themselves. The British saw in all of this possible future ways for the development of design education in their own country. In three years, when Bauhaus had already been dismissed by the German Nazis, Walter Gropius was invited to England to teach at local art schools, and later, in 1937, his former colleagues at Bauhaus, Laszlo Mohoy-Nagy and Marcel Breyer, also came [5]. So without exaggeration it can be argued that British design education was developed using the highest achievements of design in the world.

The same cannot be said about Ukrainian design education. It was neither influenced by any associations similar to the German Werkbund, nor by trips of Ukrainians to Bauhaus, nor by the invitation of the stars of global design education to work for them – nothing of this kind happened. Therefore, it cannot be argued that design education in Ukraine at that time was based on the best achievements of global design.

Starting from the 1920s, the artistic and industrial design direction began to dominate in Ukraine in the higher art schools of Kyiv, Kharkiv, Odessa and Lviv. Opened in Kyiv in 1917, the Ukrainian Academy of Arts from the very beginning sought to promote – along with visual arts and applied art forms – the development of artistic and industrial design. A little later, in the Kyiv Institute of Plastic Arts, later called the Kyiv Art Institute, the artistic and industrial direction even began to dominate. A textile branch was opened and next a teaphotocino (theatre, photo, cinema) tephotocin department. This was stipulated by a reorientation of the teaching methodology used in which articular attention was paid to the assimilation of the cycle of formal-technical disciplines (the so-called ‘fortech’). Practical classes in workshops of technical designation gained great importance [4]. But eventually, the reform of artistic education in 1934 greatly changed the original system of artist training in Kyiv. The experience of the 1920s was rejected. For many years, the All-Russian Academy of Arts was the standard for the Kyiv Institute. Stankovism became the foundation for art education.

Opened in Kharkiv in 1921, the local higher art school was undergoing a similar transformation as the one in Kyiv – from the artistic and industrial direction to socialist realism in the visual arts. This was due to the preference of the Stalinist regime, which rapidly began to gain strength in the 1930s. The same thing happened in Odessa. Only one industrial design branch was implemented at numerous powerful machine-building factories in Kharkiv, by graduates from the Kharkiv Institute of Technology, who at the time of their education in the pre-Soviet period had received elements of designer training.

In West-Ukrainian Lviv, which was then located outside of the communist empire, artistic and industrial education developed under a stream of European influences, specifically those that had a tendency towards decorative arts. In Lviv during the first half of the 20th century, from 1905 to 1914 the Free Academy of Arts operated, while in the 1920s and 1930s there were a number of private schools and studios [4].

4.2 The Second Half of the 20th Century

When the Second World War ended, the British government considered as its main goal to intensively develop the economy and increase exports of goods. In this context, commissions were given to artists who worked in industry, which required a thorough professional training of specialists. Serious reforms in education began. The previously established organic connection between craft and artistic training in the context of the realities of the postwar world became the basis for the merger of artistic and technical schools, which resulted in the formation of colleges for training specialists in various areas of design. As an example, educational institutions that subsequently became parts of the London Institute and then the University of the Arts of London can be pointed out. In 1964 the Chelsea School of Art merged with the Polytechnic School, in 1975 followed by the College of Art and Construction Hammersmith (1891). The St. Berries Foundation Printing School merged with the School of Photoreproduction and Lithography in 1949, forming the London School of Printing and Graphic Arts; in 1960 it was renamed as the London College of Printing. Central Saint Martins College (CSM) was formed in 1989 by a merger of Saint Martin's School of Art, founded 1854, and the Central School of Art and Design, founded as the Central School of Arts and Crafts in 1896. The school was renamed Central Saint Martins College of Arts and Design in 2011 (Figure 1). Similar transformations that involved artists in solving the real needs of the community occurred in most British art schools.



Figure 1 Projects of students of BA/MA CSM Fashion, Great Britain, various years.

Meanwhile, the UK opened a design department in schools and colleges in terms of the post-war reform of vocational training and introduced curricula in disciplines close to design. For example, a design department was created in the Royal College of Arts in 1954, which then trained only 40 students, accounting for 9% of the total number of students in that college. A similar situation was

observed in other educational institutions. However, despite the limited number of students in design disciplines, this period was determining for the development of British design education. The rapid development of the industry, the state support for design education, and the invitation of designers with a worldwide reputation to teaching positions contributed to a gradual increase in the number and quality of design trainings [6].

The main educational institution in Britain where specialists are trained for industry (that is designers) has remained the Royal College of Art (RCA) (Figure 2). It has been very successful in establishing collaborations with industrial enterprises, in particular with automotive firms in the USA, Japan, South Korea and a number of countries in Western Europe [7].

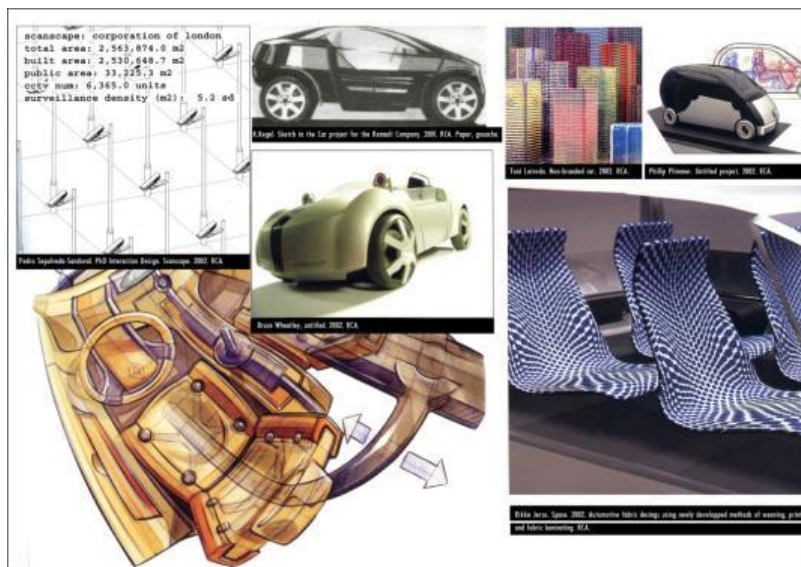


Figure 2 Projects of students of the MA Vehicle Design Department, RCA, Great Britain, 2001-2002.

In 1989, the college switched to a faculty system; at that time there were four faculties: industrial design, communication design, fine arts, and the humanities. The Royal College of Art (RCA) is one of the few educational institutions in Europe that officially had university status at the end of the 20th century. Currently, college students study at six faculties: design, design of communications, fine arts, humanities, as well as architecture, fashion and textiles; they have the opportunity to earn a master's degree in all areas of study and continue their studies at the postgraduate level.

Table 2 Comparison of Two Leading Design Educational Institutions of Higher Learning in Great Britain and Ukraine at the End of the 19th and the Beginning of the 21st Century.

Educational characteristics	Royal College of Arts	Kharkiv State Academy of Design and Arts
University Status	End of 20th Century	Beginning of 21st Century
Faculties	Design Design of communications Fine arts Humanities Architecture Fashion Textiles	Design Environment design Fine art
Educational levels	Master's degree Postgraduate studies	Bachelor degree Master's degree Postgraduate studies

To compare: the main educational institution that trains designers in Ukraine, Kharkiv State Academy of Design and Arts (KSADA), switched to a faculty system of 1962. The university status was officially acquired in 2001. Nowadays, students of the academy study at three faculties: design, environment design, fine arts (Figure 3). They have the opportunity to receive a master's degree in all areas of study and continue their postgraduate and doctoral studies.



Figure 3 Student work, BA/MA Industrial Design Specialization, Design Faculty KSADA, various years.

The main feature of the designer training on the British isles is that the education system has active state support and is directly regulated by the state. The number of students admitted to design education institutions is limited and is stipulated by the actual need for specialists in this field. The UK provides scholarships and grants for students and special funding for professionals out of

educational programs for design educational establishments, improvement of the production practice of design students, etc. [8].

Educational institutions receive funding from the state itself as well as from non-state institutions. Thus, in 2001, the Royal College of Art (RCA) received a £3 million grant from the Helen Hamlin Foundation for the organization of a research center. In 2009, the James Dyson Foundation donated 5 million pounds to build a new building for the Royal College of Arts in Butters. Such funding for design education in Ukraine has never existed.

In the second half of the 20th century, design education in Ukraine, which was eradicated in the 1930s, was revived and regained official status in 1962 in Kharkiv. Then, the Kharkiv Art Institute was reorganized into the Kharkiv Art and Industrial Institute, where students were trained according to the three main directions of contemporary design: industrial design, graphic design and design of the environment (3 departments)[9]. At the end of the 20th/beginning of the 21st century, the Kharkiv State Academy of Design and Arts (KSADA) (formerly Institute) added more specializations, such as fashion design, textile design, furniture design, multimedia design, topical visual practices, theory and history of arts, and curatorship of exhibition activities.

In 1946, the Lviv Institute of Applied and Decorative Arts was opened, which taught ceramics, artistic woodworking, glass design, interior design, artistic weaving. In 1972, they were joined by fashion design and in 1994 by graphic design (the university status was acquired in 1946) ... (LNAA).

At the National Academy of Fine Arts and Architecture (NAFAA), during the 1970's, a kind of graphic design began to evolve from the deep traditions of the Kyiv graphic school.

Kyiv Institute of Decorative Arts and Design (now NAOMA) was founded as a secondary school for masters of decorative and applied art in 1938. It was reorganized in 1962 into the Kyiv Art and Industrial College, where the training of masters at the middle level in the areas of industrial, graphic and interior design began. In the 1990s, along with reaching state independence, Ukraine was marked by the fact that during this decade many new design departments at technical and other higher educational establishments were established.

This process reached such a level (quantitatively) that the question arose to impose a moratorium on the opening of more new design schools for a period of three years in order to be able to deal with the ones that had been opened in recent years, given the weak ability of the new schools to ensure the quality of designer training according to the state education standards. However, the

process of new design schools being established in Ukraine still continued at the beginning of the 21st century.

In this case there is a flip side: statistics on the number of certified designers per 10,000 people in Ukraine has shown that this indicator, in comparison with developed countries, is low. Therefore, the increase in the number of design students in Ukraine made sense. However, it is necessary to more closely monitor the quality of education provided by universities in this discipline on the one hand and to provide support at the state level for improving the quality of the newly created schools on the other hand.

A number of design departments in technical and other non-arts institutions of higher education have managed to survive. This group comprises the old design department in Lviv Polytechnic, the younger departments of design at the University of Technology and Design (Kyiv), at the Forestry University (Lviv), Lutsk Technical University, the Precarpathian University (Ivano-Frankivsk), the Kyiv Polytechnic, Dnipropetrovsk University, Technological University of Cherkasy, Kherson Technical University, and others.

The newly created design schools borrowed experience from existing ones, i.e. they used their curricula. A large part of these programs was dedicated to the development of general artistic skills to a greater extent than in European universities. This is a tradition that has been preserved since ancient times and has hindered the orientation of Ukrainian design education towards developing the ability of designers to adapt to the market. On the other hand, it actively instilled in future professionals fundamental artistic knowledge and skills so that the process of their market-technocratic education does not lead to atrophy.

Today the system of design education in Ukraine covers 48 educational establishments at the university level, apart from secondary and primary ones. The government's design education policy has not really gained efficiency. However, design training takes place starting from pre-school education and elementary school to post-graduate courses and advanced training courses for graduate students through the activities of educational institutions themselves. Thus, in Ukraine there has been a dramatic increase in the number of design and education centers in universities. Moreover, this did not start in 1963 but in 1993. That is, for 30 years almost nothing happened and then in the past 25 years the increase was tenfold.

There was no such boom in the UK of new design schools. There, everything happened more gradually. Today, the British design education system covers almost 190 educational institutions at all levels. The UK government provides a broad program of design education, from pre-school education and elementary

school to post-graduate courses and advanced training courses for graduate students [10].

5 Quantitative Indicators of the Availability of Design Schools and Educational Programs in Europe at the Beginning of the 21st Century

Now let us compare the number of higher education institutions that train designers in Ukraine with that in some other European countries. For example in Germany we counted 32 higher design-education establishments (the population in this country is 81 million people, which means that the proportion is one establishment per 2.5 million people). In France, there are 45 (with 65 million people, i.e. one establishment per 1.4 million people), in Poland more than 60 (38 million people, i.e. one establishment per 0.63 million people). In Ukraine, we remind, there are 48 establishments for 42 million people, i.e. one establishment per 0.875 million people [11].

Table 3 Comparative Table of the Availability of Design Education Establishments in Four European Countries, 2019.

Country	Number of higher educational establishments	Population mln.people	Population per one centre
Germany	32	81	2,5
France	45	65	1,4
Poland	60	38	0,63
Ukraine	48	42	0,875

This comparison shows that the number of design-education establishments in Ukraine is quite comparable with the same indicator in Central European countries. Nevertheless, of course, this does not mean that the quality of education is equal.

Let us add another indicator: design education programs. In Ukraine, they are distributed in higher education establishments in the following way [11]:

1. graphic design 24
2. environment design 22
3. fashion design 22
4. landscape design 8
5. multimedia design 6
6. industrial design 5
7. furniture design 3

We compared this with what is happening in European countries. For comparison, lists of design education programs were studied in 10 reputed European universities. In the UK: Royal College of Art (RCA) (London), London University of the Arts, School of Art in Manchester. In Italy: the European Design Institute (Milan), the Academy Domus (Milan), the Art Academy of Brera (Milan). In Poland: the Academy of Fine Arts (Warsaw), the Jan Matejki Academy of Fine Arts (Krakow). In Germany: the Berlin University of the Arts, Bourge Gebichenstein High School (Gallie).

The comparative analysis shows that the overwhelming majority of design education programs in the mentioned universities exist in Ukraine, with some terminological deviations. The following are not available in Ukraine: Light Design (European Design Institute (Milan)), Design of Sounds (European Design Institute (Milan)). Until recently, there could not be traced Innovative Design Engineering as in the Royal College of Art (RCA) (London) and Therapeutic Art (Academy of Arts of Brier (Milan)). However, these two education programs were started at Kharkiv State Academy of Design and Arts (KSADA) in 2017 [12]. Innovative Design Engineering was created on the basis of the Faculty of Design and Art Therapy was created on the basis of the Faculty of the Design of Environment. It should be noted that some universities still have a school of material-based art forms, where students work in ceramics, glass, metal, wood. In Ukraine, this is referred to another specialization, called 'decorative and applied art'.

Thus, the comparison shows that the existence of design education programs in Ukraine is comparable to that in European countries. Of course, like with the number of educational establishments, the existence of such programs does not mean quality of education [11].

6 The Quality of Modern Design Education

Let us emphasize that the quality of design education is a complex feature. After all, design is an artistic activity, where quantitative estimates cannot work. Apart from the level of visual experience and artistic skills provided by the design school, the concept of quality among other things has characteristics such as integration of education in real life. In this regard Ukraine, in comparison with Great Britain and many other European countries, has disadvantages in the sense that it has a considerably less efficient connections with business; it weakly introduces students to the realities of the business environment.

Instead, in design training Ukraine has retained the achievements of art education that have been formed for centuries and therefore can rightfully be considered as being basic for any visual art practice. Due to the fact that design education in Ukraine came out of the arena of art-education institutions, a large proportion of basic traditional art training is received by design students, larger than design student in Western-Europe. Their training comprises many years of practice in academic drawing, painting, sculpture (Figure 4). Exercises in academic drawing are formed in curricula in such a way that they represent a consistent chain of training assignments that are clearly based on the principle of ‘from the simple to the complex’. This chain begins with drawing from nature, first of simple geometric shapes and after that of plaster casts of classical busts (beginning with sketching) and after that the human figure. Along with drawing exercises from nature, the curriculum contains assignments for the creation of imagery based on imagination, the subject of which depends on the educational design program that is being developed. At the same time, students must carry out tasks aimed at studying modern computer graphic programs [13].



Figure 4 Drawing human figures, KSADA, NAOMA, LNAAU students, Ukraine, various years.

However, the share of man-made imaging remains dominant. This is explained by the approach that hand-made images are a not means of expressing an emotion but creating an image. Imagination is not a reflection of an already developed idea but an activity that implements it (Figure 5) [13].

Similarly to this, a sequence of exercises in the discipline of ‘academic painting’ are given. This is also based on painting from nature. At first, still lifes, after that a person’s head and then human figures. Simultaneously with this, exercises are performed to create imagery. The dominant part of such exercises is provided by a discipline auxiliary to painting, called color studies. A significant amount of academic credits on academic sculpture is included in the educational program of industrial design. It is also based on modeling of the nature of classical specimens. Simultaneous with this, exercises are given on the imagination in the stream of modern subject forms [14]. In general, classical art disciplines account for 40% of the overall plan for training designers.

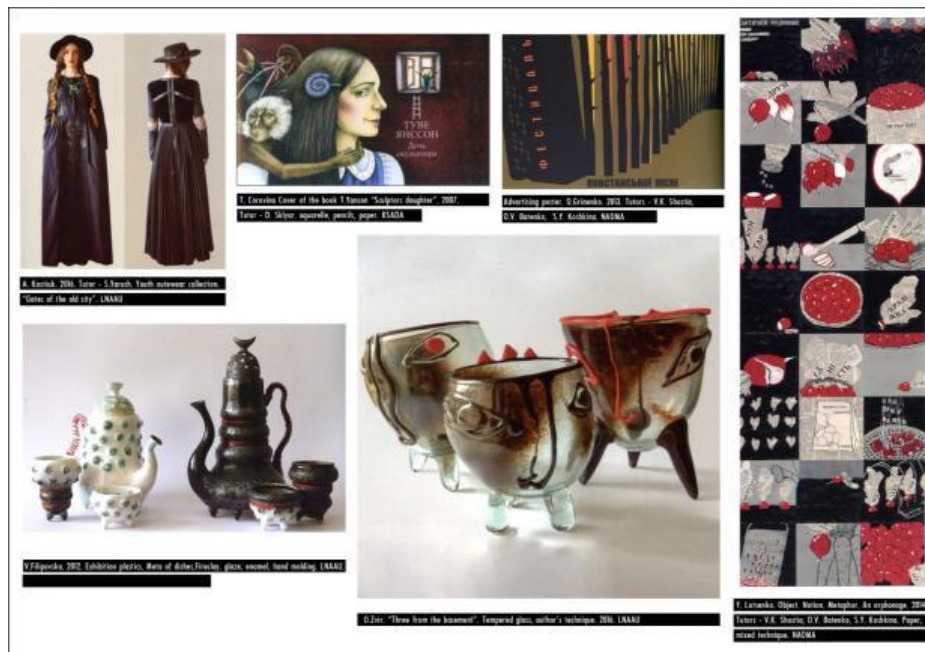


Figure 5 Projects of students in fashion design, graphic design, ceramics from NAOMA, KSADA, LNAAU, various years.

This large amount of time dedicated to the traditional principles of academic drawing, painting and sculpture are not found in the curricula of Western European higher design schools. Classes on composition are based on what has

been gained by many European schools and correspond to concepts such as: aesthetic experience is the result of the influence on human perception of a special combination of lines, spots, shapes, colors, proportional relations in two-dimensional and three-dimensional space.

The syllabus curriculum on composition foresees the same consistent implementation of assignments based on the principle of ‘from the simple to the complex’, realized when the student invents the images first from points, then from lines, then from planes, and then from more complex plastic volumetric forms. This is followed by the creation of compositions aimed at the interaction of those voluminous objects in space. All these practical tasks are performed after mastering the theoretical material from the principles of composition. It includes becoming acquainted with the main categories and means (proportion, rhythm, symmetry, asymmetry, statics, dynamics, etc.) (Figure 3) [15]. To a great extent it is training of, so to say, craft skills, but this training is able to provide a basis for subjective artistic and design ‘statements’ of the student.

For good reason, the artistic and craft skills of artists from Ukraine have not remained unnoticed; they are defined as ‘extraordinary’. This was stated, for example, by Nigel Hurst, Director General of the Saatchi Gallery in London [16].

In addition, a large number of hours in the educational programs of design and educational centers of Ukraine is assigned to the development of the mentioned skills studying living forms, in so-called ‘bionic practices’ (Figure 6). These forms are a perennial source of aesthetic preferences. Therefore, it is very firmly seated in the human body and, most likely, will vanish only with his disappearance.

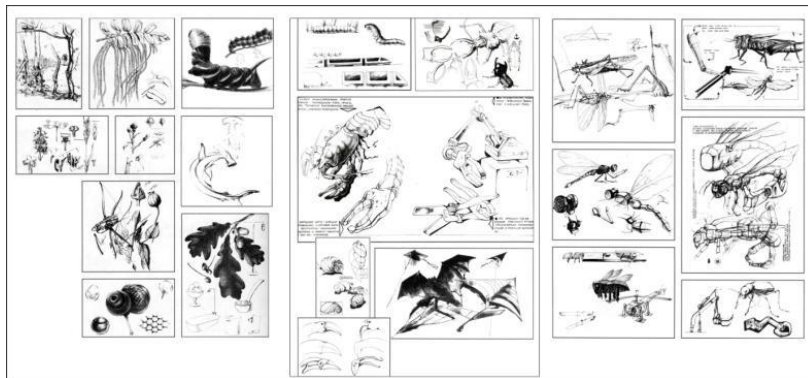


Figure 6 Figure 6. Bionic practices. Student work based on the study of nature, workshop of V. Jelkov, KSADA, Ukraine, 1980s-90s.

Bionic practices are based on traditional drawing as taught in the courses mentioned above. This exercise is the basis for gaining a visual experience of the forms of nature. It is about the process of drawing as a tool for the study of natural forms and not about making pictures. We have not succeed in finding a similar approach anywhere in the design training programs of Western European higher design schools.

If we go back to the market-oriented component of the quality of design education in the UK, we can identify another very significant feature. This involves design education bringing into their orbit new, so to say, hybrid education programs for specialists from other fields: marketers, consulting researchers, top-managers of worldwide design brands, experts in the history of brands, economists-researchers, etc. They fall into short-term educational design programs, introducing the knowledge they receive in those programs directly into their business.

7 Conclusion

1. The design education system in the UK dates back to the middle of the 19th century, when the first schools and colleges for fine arts and artistic decoration of industrial products were opened. In order to improve the quality of design training in the UK, a number of educational reforms were introduced. Over time, a multi-level system of design education was introduced, starting with art schools and technical colleges, and training programs that were developed to meet the objectives of industrial art.

An important feature of designer training in the United Kingdom is state support in this area, which encompasses funding the educational process, creating favorable conditions for beginning design professionals who graduated from universities (through scholarships and grants). All this ensures high efficiency of design education and promotes the development and implementation of all kinds of inventions and high technologies.

2. Design education in Ukraine dates back to the last third of the 19th century, when the first art and industry schools were opened and the integration of art and technical education took place. Significant reforms in design education as happened in the UK did not take place in Ukraine. State support of the industry, including substantial funding, did not take place either. However, over the past 25 years the number of design and educational centers has increased tenfold. They cover all the major design specializations of the present. Design education in Ukraine has matured quantitatively and attained a new level of quality.

3. The quality of design education is a complicated category, as goes for any art education. Nevertheless, it is possible to highlight one not totally artistic but rather basic component: the integration of design education in real life, i.e. the introduction of the student directly into the business sector during their of education. This component is significant in the UK and in most of the countries of 'old Europe'. In Ukraine, this component is weak, which is a disadvantage. But the flip side of this is that there is also a certain advantage for Ukraine, which lies in the fact that higher design education there, as well as higher education in general throughout the country, is based on a wide range of fundamental knowledge and skills that are conveyed to the student, in this case fundamental artistic knowledge and skills.

4. Comparison of the design and educational spheres of Great Britain and Ukraine shows that the economic and technological backwardness of the East, which is an objective fact, has not led to degradation of the sphere of art and design education in Ukraine. This lag has led to an inclination of educational processes towards a more artistic orientation. In the absence of a dynamic technocratic economy, the available educational and artistic human resources have been used more in the realm of fundamental artistic values. The experience of such an implementation comprises the potential to restrain the technocratic aspects of modern progress, which are among those that can have negative effects.

5. We hypothesize that further research on this topic, involving the design and educational experience in different countries, can lead to a deeper understanding of the fact that locations that are 'provincial' according to conventional wisdom can turn into 'central' ones in the context of the future era of artificial intelligence, which is emerging following the post-industrial era. This carries a number of risks associated with the destruction of fundamental human values, including artistic projection 'with a human face', which society should not lose.

Consequently, in our opinion, an understanding of the essence of the above-mentioned advantages and disadvantages in the design education sphere will be helpful.

References:

- [1] Yern, O. (Gaganmeister), Moshak, M. *Kamyanets-Podilsk Artistic and Industrial School, Its Part in the Development of Artistic Education and Cultural Life of Podilla in the 20-30s of the XX Century*, Herald of Kharkiv State Academy of Design and Arts. **1**, pp. 18 Kharkiv, 2002.

- [2] *Raievskaya-Ivanova The Twenty Fifth Anniversary of Kharkiv School of Drawing of M.D. Raievskaya-Ivanova from 1869 till 1894 Including the Reports on 1893, Kharkiv, 1894.*
- [3] *The Twentieth Anniversary of the Emperor Alexandr III Kharkiv Technological Institute 1895-1910, Kharkiv, 1910.* No author
- [4] Shmagalo, R.T., *Art Education in Ukraine in the Mid-19th Century Mid 20th Century: Structuring, Methodology, Artistic Attitude: Monograph.* Lviv, Ukrainian Technologies, 2005. 47-104 pages
- [5] Hollis, R. *Graphic Design. A Concise History*, London, Thames & Hudson, pp. 224, 2001.
- [6] Gomez-Palacio, B. & Vit, A., *Graphic Design, Referenced: A Visual Guide to the Language, Applications, and History of Graphic Design*, Massachusetts, Rockport Publishers, pp. 400, 2009.
- [7] Julier, G., *Design and Political Economy in the UK*, Knowledge Technology & Policy, **22**(14), pp. 217-225, 1986.
- [8] *Restarting Britain: Design Education and Growth – Policy Connect, London, Policy Connect, pp. 78, 2011.*
- [9] Kharkiv School of Design, *The Experience of Designers Training at Kharkiv Artistic and Industrial Institute, M., 1992.*
- [10] Findeli, A., *Rethinking Design Education for the 21st Century*, Design Issues, **17**(1), pp. 5-17, 2001.
- [11] Danylenko V. *Design Education in Ukraine: Transition into New Quality*, Herald of Kharkiv State Academy of Design and Arts, **3**, Kharkiv, 2017.
- [12] Yeremenko I., Vasina O., Kutateladze V., Bondarenko B., Pogorelchuk V., Educational and professional program "Industrial Design", first level in the specialty 022 Design, Field of knowledge 02 Culture and Art, Kharkiv State Academy of Design and Arts, 01 July 2021 URL Link <https://ksada.org/doc/opp-ID-bac-2019.pdf>.
- [13] Vasina O, Boychuk O, Eremenko I. Educational and professional program "Innovative Design", second level in the specialty 022 Design, Field of knowledge 02 Culture and Art, Kharkiv State Academy of Design and Arts, 01 July 2021 URL Link <https://ksada.org/doc/opp-ID-mag.pdf>.
- [14] Ganotska O., Sbitneva N., Ivanenko T., Lesniak V., Veklenko O., Opalev M., Educational and professional program "Design of Visual Communications", second level in the specialty 022 Design, Field of knowledge 02 Culture and Art, Kharkiv State Academy of Design and Arts, URL Link. https://ksada.org/images1/%D0%9E%D0%9F%D0%9F%D0%BC%D0%B0%D0%B3%D1%96%D1%81%D1%82%D1%80_%D0%94%D0%92%D0%9A_2021.pdf

- [15] Ivanenko T, Danylenko V., Sbitneva N., Educational and scientific program "Design", third level in the specialty 022 Design, Field of knowledge 02 Culture and Art, Kharkiv State Academy of Design and Arts, URL Link [https : //ksada.org/pdf/022_onp_2020new.pdf](https://ksada.org/pdf/022_onp_2020new.pdf), (July 1, 2021).
- [16] Skrynnyk-Myska, D., *Topical Artistic Practices*, Herald of Kharkiv State Academy of Design and Arts, Kharkiv, No. 3, 2017.