

HISTORICAL DEVELOPMENT OF GRAPHIC DESIGN AND ITS TRANSFORMATION IN THE CONTEXT OF MODERN TECHNOLOGIES

Karpova Inesa

Assistant Lecturer

Ivanova Nina

Ph.D., Associate Professor

Hirenko Oleksandra

Student

O. M. Beketov National University of Urban Economy in Kharkiv
Ukraine

Graphic design is a dynamic field of visual communication that is constantly evolving along with the technological progress of mankind. From primitive cave paintings to modern digital interfaces, visual images have always served as a means of conveying information and ideas. Considering the historical development of graphic design and its transformation in the digital era is a relevant task.

If we analyse the historical development of visual images, we can see that from primitive cave times to the present day, a profound process has taken place that has created an environment of communication and interaction. In the past, stylised and distinctive visual images that were admired have become more diverse with the development and diversification of technologies and media, which has eliminated the limitations of materials in communication. Graphic design, which used to be limited to the print sphere, can now go beyond it thanks to the interaction of media. Graphic design, which provides dynamics in the modern world with the help of technology, is intensively used on interdisciplinary platforms where works are created, and is constantly updated and positioned due to the progress of knowledge and technology. Today, we can observe the diversity and search for innovation in image production, which we obtain through different interfaces in technological means and tools, as well as in the use of different means and tools before and after the invention of the printing press. Before the advent of the movable printing press - from the 1900s until the advent of woodblock printing - papyrus was used, and in the Middle Ages, fabric and woodblock printing techniques were used. After the 14th century, they switched to parchment paper and began using woodcut printing [1].

In the Middle Ages, copper and engraving printing were added to the board printing, and in the early 19th century, lithography was introduced. Lithography brought reproduction to a whole new level. This technique, much more practical than other printing techniques, for the first time created the basis for the production of graphic works not only of a mass nature, but also with new forms. Lithography allowed

graphic art to enter everyday life. A few years after people began to adapt to the printing technique, photographic techniques appeared on the agenda [2, 3].

The digital revolution has dramatically changed the way we create visual communication. With the spread of computers and the emergence of the first graphic editors in the second half of the 20th century, designers were able to work faster, more accurately and experiment with new forms of expression. Traditional methods gave way to digital tools that provided flexibility, detail and multidimensionality in graphic works. At the end of the century, a new era began, creating favourable conditions for high-quality production of illustration designs [4]. In graphic design, digital vector-based online or offline technology tools and instruments are widely used, which can be integrated with various software products. Today, graphic designers have more opportunities for self-expression and create personal styles and techniques, making graphic art and illustration indispensable in terms of visual communication.

The notion of graphic design, which began to emerge in the twentieth century, paved the way for greater specialisation in this field for designers, who were previously identified with artists [4]. Today, the concept of graphic design covers many subcategories. These include: book cover design, interface and website design, medical illustrations, game and character design, animated graphics design, environmental design, signage design (pictograms), interactive graphic design, etc.

The dynamics of design development from manual sketching to digital design with the convergence of artificial intelligence and creative talent of the designer is associated with periods of industrialisation from post-Fordism of mass production to the current state - the digital revolution of post-industrial society [5]. Graphic design always moves in connection with something. Therefore, the culture and technologies of each period directly influence and shape design. With the advent of the digital era, we have started to pay more attention to digital interfaces, so the weight of design is increasingly focused on these platforms. The introduction of computer technology into everyday life requires designers to use this area effectively to reach their target audience. This requires designers to update their knowledge more quickly than in the past. After all, the technological tools and interfaces we use are becoming more complex every day, updating the scope of use and influence. Depending on the technology used, design software can be deepened to meet the needs. For example, 3D modelling and animation software has become widespread today, and the number of software technologies and tools in this area has grown. Specialised information systems and software make it possible to create animation solutions, observe the movement of objects in real time and edit them. The variety of software and interfaces in the design industry defines the design trend [6].

Thus, graphic design has come a long way from manual techniques to digital tools, which has significantly expanded the possibilities of visual communication. Technological advances have not only simplified the process of creating graphic works, but also contributed to the emergence of new areas and specialisations in this field. Today's graphic designer has unprecedented opportunities for creative expression, but at the same time, he or she must constantly improve their knowledge to meet the demands of a rapidly changing technological environment.

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