THEORY AND INSTITUTIONS OF EDUCATION

SEARCH OF BASIC VISUAL MATERIALS IN THE PROCESS OF DESIGNING GRAPHIC OBJECTS (ADVENT CALENDAR AS AN EXAMPLE)

Svitlana Borysova,
Candidate of Pedagogical Sciences, Associate Professor,
Associate Professor at the Department of Design, State Institution
"Luhansk Taras Shevchenko National University" (Poltava, Ukraine)
ORCID ID: 0000-0003-0610-644X
svitlana.borysova@gmail.com

Abstract. This article examines the influence of basic visual materials on the creation of graphic objects using the example of an advent calendar. The content of a graphic designer's activity is considered from the standpoint of finding basic visual materials that trigger the generation of ideas and images. Factors influencing the process of selection of basic visual materials by the graphic designer are clarified. The graphic designer's environment is considered both external and internal, which has its own specifics. The model embraces two axes that describe the proximity of references and the design environment, the culture of the design studio, as a partial case of the cultural environment. The students' project activity is considered as the one that implements a certain idea with attributes that determine the graphic designers' decision and embodies their personal intellectual and creative efforts.

Key words: graphic designer, references, basic visual materials, graphic object, advent calendar, project activity, visualization.

Introduction. The modern world cannot be imagined outside of information. The expansion of technical possibilities of information exchange has intensified the processes of interaction of graphic designers with the surrounding world, which is characterized by freedom and interaction of cultures in the information space. The intensification of information influences causes the constant formation of new information flows that change the world and the individual in it. And a person, especially a person in a profession that operates with information and its visualization (this directly concerns the specific features of the professional activity of a graphic designer), must have time to pick up these flows, understand them, take into account their direction, so as not to get lost in modernity, not to find in the past, and ideally to manage them.

Among the features inherent in the professional activity of a graphic designer, it should be attributed to its practical orientation, which by assigning an individual from the designer's personality ensures the design of a certain range of goods, spaces and services (Attfield, 2000). The graphic designer's project activity does not concern an infinite number of material objects, but in those created in the process of his professional activity, a special personal level of cultural capital is manifested (Rosińska, 2010: 32). In addition, the result of the graphic designer's work is also the result of designing the interaction of communication and application aspects of the projected objects (subjects, phenomena, events, processes, and in general – individual units (Wszołek & Moszczynski, 2015: 174).

From this point of view, the project activity should be considered as one in which the personal intellectual and creative efforts of the graphic designer with his unique experience stand behind the result, which always manifests itself at a certain position of the "better/worse than the other" continuum, the realization of an idea. The specified integration of intellectual, aesthetic and in a certain way ethical components of project activity is not an arithmetic sum, a mechanical combination, therefore

the design process logically faces the need to resolve various contradictions, including when working on the visual component of the project. This is especially important due to the fact that visualization, visual information is one of the defining components when designing design objects as elements of social life. Therefore, of the three stages of the cycle of reproduction of social order: externalization, objectification, and internalization in graphic objects, internalization as the assimilation of objectified phenomena by a person involved in a certain community becomes the most important (Berger & Luckmann, 1981).

The leading position of visual information in internalization is determined by the fact that visual images convey content, meaning in a form easily understandable to consumers of design, in fact, in visual terms, and also due to the undeniably wide spread in the life of a modern person of various visual technologies that offer the results of their application: paintings, digital graphics, photographs, videos, etc. (Rose, 2016).

In the design industry, most specializations of design activities, in particular, graphic, multimedia design, web design, game design, VR/AR design, interactive design (interaction design), differ in visual technologies, tools and project results. The functional field of a design product is not limited to a utilitarian purpose, each of the design objects has broader functional properties (aesthetic, cognitive, informational, hedonistic).

However, design objects are a means of obtaining information (from the designer through the design object), exchanging information (between the designer and the consumer of the design object), as well as its distribution in society (from the designer, from the consumer of the design object, from the design object itself). In order for the specified chain of transmission and understanding of information to function, it is necessary that the communication between the participants in the process of transmission, reception, and understanding of information takes place on the basis of a language of communication that is understandable to all, especially in the case of visual language.

Visual information is not impersonal, it interprets the world and is a product of the objectification of thoughts, feelings, emotions, and reasoning. A. Traindl emphasizes that visual information is important for the functioning of social reality (Traindl, 2007). It is internalization that is at the heart of the process of a person mastering the objectified elements of social reality in the course of his development, as a result of which he becomes a representative of a certain community, who shares with others the accumulated, mastered cultural experience. A graphic designer is engaged in creative activities and, from a professional point of view, strives to be understood, thus satisfying social needs, creating a part of social reality. Therefore, the purpose of the article is to study the effects of basic visual materials on the creative activity of a graphic designer when he creates design objects that satisfy public needs.

Main part. The transmission of information encoded in signs using images, as well as letters, is a manifestation of visual communication, which is especially effective under conditions when words, the basis of modern culture, are not enough, and the image acquires a function similar to the transmitted verbal content. According to A. Frutiger, the expression of communication in a graphic form with the help of drawings, signs and symbols that reflect phenomena that exist in reality indicates a developed abstract thinking, such thinking that leads to the creation of alphabetic writing, which in its final form has a timeless character, detached from symbolic meanings (Frutiger, 2022).

On the other hand, a modern graphic designer perceives the external world partly as a game. He understands that society is external data, that political ideologies are changeable things, that the norms of mass and elitist art change over time, and the line between them is very thin. All these factors together create a significant impact on the creative component of a graphic designer's professional activity, which by its very nature requires a constant search for ideas, images, and content. Therefore, in the process of designing objects of graphic design, the search for basic visual materials based on the understanding of the specifics of the sources of inspiration becomes important, which often becomes the starting point, the driving force of the design process (Borysova, 2023).

The formation of an understanding of visual information, visual images is extremely important both at the stage of design education, which implements the concept of visual literacy (Marshall, 2007), and in the direct professional activity of designing graphic design objects, which provides awareness of the possible influence of selected existing images on the design idea and the expected overall design result.

The usual content of a graphic designer's activity is the search for basic visual materials, which triggers the generation of ideas, images, and ideas for further processing and transformation into essays, images, and projects. The main goal of our research is to find out the factors that influence the process of the designer's selection of basic visual materials when designing a design object.

Basic visual materials, which are also denoted by the term references (materials made by a certain author taking into account the context), are selected by the designer not arbitrarily, but according to the influences that are created on the personality of the designer in a certain socio-cultural environment during life and activity (Rodgers & Strickfaden, 2007). Basic visual materials cannot be separated from the content component, the meaning given to them. References in the form of images (photos, drawings) are mediated carriers of verbal information that is perceived and transformed by the designer in the process of projecting the design object. So, on the one hand, the selected visual material creates an impact on the generation of ideas for the project, and on the other hand, the designer transforms the reference idea, enriching it with his own ideas, and thus creates a new meaning of the projected image (Strickfaden et al., 2015).

The search for basic visual materials is related to the processes of remembering, perceiving, understanding, selecting, analyzing for further transformation and giving new meaning to the images that are significant for the project from the designer's point of view (Adams, 2021). The impossibility of consciously using references without going through separate processes is primarily due to the fact that any basic visual materials include necessary and redundant elements in terms of content (relative to the design task set before the designer). Considering this, it can be considered that the mentioned processes indirectly control the design process of the design object.

The search for references can be considered a concretization of another process – the search for sources of inspiration (Tatham et al., 2011), which encompasses a more global volume of images from the most diverse fields: art; animate and inanimate nature; city life, architecture; books; databases on the Internet; cultural phenomena and people as their participants; artifacts (Özcan & Güzererler, 2018). From this position, the birth of an idea for the next embodiment in the design of a design object can go from finding sources of inspiration through the selection of basic visual components to the actual formation of the design idea. It is worth noting the tendency that the longer and more branched the path between the source of inspiration and the design idea, the greater the conceptual distance, the higher the level of creativity and novelty of the design object (Gentner & Markman, 1997). It is worth noting that the search for sources of inspiration, as well as the activity of selecting basic visual materials, is not a unique phenomenon, the prerogative of the graphic designer's project activity. For other fields in which creativity is of equal importance (for example, visual arts), or for the development of scientific and technical ideas, finding sources of inspiration and working with references can be even more relevant.

In theoretical and practical studies in the field of design and related fields of social psychology (the field of sociocultural environment), a number of divisions and classifications of references are presented, depending on the context of their formation and existence (Goldschmidt & Sever, 2011; Cardoso et al., 2012; Eckert & Stacey, 2000). The closest to our understanding of the separation of references is a two-plane visualized holistic model of the use (influence, creation) of references by designers, developed by P. Rodgers i M. Strickfaden (Rodgers & Strickfaden, 2007).

In this model, to visualize the connections between the individual and cultural, social in the selection/creation of references, two axes are used, which describe the proximity of references (from close,

local, to distant, universal, universal) and the design environment, the culture of the design studio, as a partial case cultural environment and Western civilization as a whole (ranked from the influences, the context of the innermost environment of the design studio to extra-studio influences).

In the proposed model, the analysis of references is performed from the standpoint of their formation, definition by the environment, society, dependence on the professional environment, and not from the standpoint of the graphic designer as an individual. Therefore, we have proposed an alternative version of the model of influence on the selection, application, and formation of references, in which the main actor is a graphic designer as a person. The model preserves the defined axes, but shifts the starting point of the analysis, thus we get the following model of selection of basic visual materials by the graphic designer for further project activities (Fig. 1).
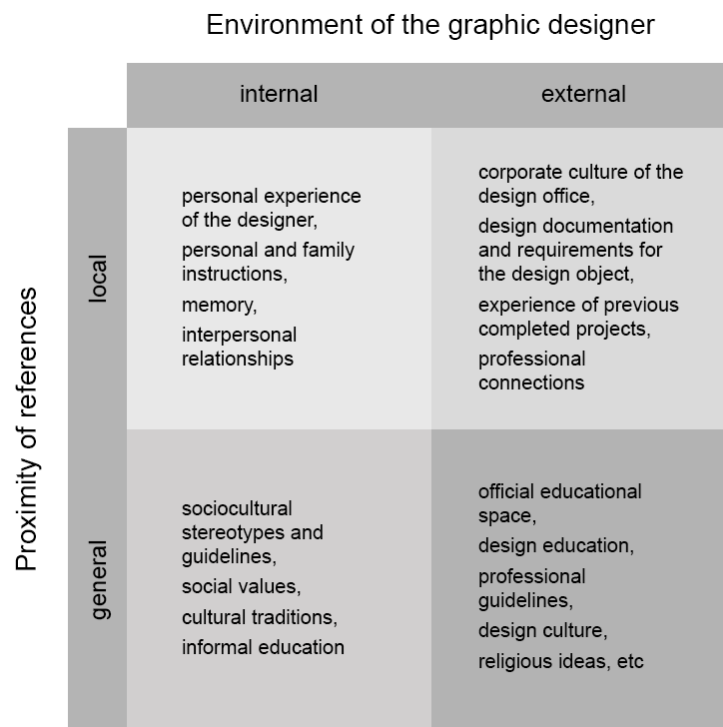
Environment of the graphic designer

	internal	external
local	personal experience of the designer, personal and family instructions, memory, interpersonal relationships	corporate culture of the design office, design documentation and requirements for the design object, experience of previous completed projects, professional connections
general	sociocultural stereotypes and guidelines, social values, cultural traditions, informal education	official educational space, design education, professional guidelines, design culture, religious ideas, etc

Proximity of references

Fig. 1. Model of influences on the selection of references by a graphic designer

Source: author's own development

So, conditionally, we can consider the process of reference selection, taking into account the internal and external freedom of the graphic designer when designing the design object, which is due to the degree of specificity of the description of the designed object in the execution documentation or the arbitrariness in decision-making by the graphic designer.

References chosen under the influence of the graphic designer's internal environment are more arbitrary and less predictable in explaining the reasons for their selection, while the basic visual material contains some of the important information required when projecting a design object with predefined characteristics. References selected under the influence of the local immediate environment have the greatest individual color, the maximum characteristics of unpredictability, since their selection is influenced by a variety of internal relationships established throughout life: family, components of personal experience stored in the memory of the graphic designer, conscious and unconscious.

References selected under the influence of the external environment common to a large number of people (stereotypes, instructions, value orientations formed by culture, society, which are manifested

in the daily activities of a graphic designer as a socialized individual) are more predictable, but still saturated with individual characteristics.

More formalized in the search are references for which rational, clearly defined, specific tasks are defined, that is, such basic visual materials, the selection of which is influenced by the graphic designer's external environment. The most specific, with a limited degree of freedom in selection, are the references that the designer must find taking into account the influence of the local external environment, i.e. with the corporate culture of a specific organization (in fact, the corporate culture of each organization, both at the level of a design education institution and at the level of a design agency , distinguished by a set of values, ideas and actions), which provides design services, documentation containing detailed information about the characteristics of the design object, the subsequent material embodiment of the designed object, the personal experience of the designer in the implementation of other projects (Strickfaden & Heylighen, 2010: 122).

Basic visual materials are considered to be the most formalized, the selection of which is mainly influenced by the general external environment, such as educational strategy, design education as a component of the educational space, design culture in its broadest sense, religious ideas, especially those inherent to the vast majority of representatives of the environment in which/for which the process of projecting design objects takes place.

However, the general external environment, even if it does not provide references directly related to the project, with a similar context, has great potential as an intermediary in the search process. Thus, among the tips for finding information for generating ideas by N. Leonard and G. Ambrose, the usefulness of going beyond the research context and analyzing any elements from implemented projects, modern and historical design samples, typography styles, color palettes, materials that at a certain moment can randomly inspire an image, an idea that will already correspond to the context of the current object of design (Leonard & Ambrose, 2013: 19).

In real project activity, a complex thought process is observed to create an internal intangible design (intangible design) based on contemplation, analysis of references relevant to the design task, the selection of which was influenced by a combination of factors from the designer's external and internal environment (environmental factors, regulatory, social, existential, corporate, economic and other factors) (Coxon, 2006). The following significant influences on the selection of references by a graphic designer are obtained on the basis of an analysis of the process of designing advent calendars for the domestic Ukrainian market.

The advent calendar for the domestic Ukrainian market is a countdown calendar, a calendar of waiting for the beginning of the main winter holidays (St. Nicholas, Christmas, New Year), which significantly differs from Western European analogues, where the final waiting period is clearly regulated by the arrival of Christmas, which causes significant and excellent influence on the selection of references by graphic designers.

Another factor that ensures the creation of a variety of offers among the projects of advent calendars for the domestic Ukrainian market is addressing different target audiences (by age, gender, interests), different cultural traditions (it is an indisputable fact that modern advent calendars are used by different people, regardless of religious affiliation), despite the fact that the main demand for advent calendars is directed by parents of children of preschool and primary school age (Borysova, 2021).

The analysis of the published advent calendars of 2017–2021 revealed a tendency towards stereotyping of visual images, conditioned by cultural traditions and fixed social ideas, which at the same time can be considered an expression of identity (Borysova, 2021). Further analysis was aimed at identifying images that are important for the selection of references by the graphic designer in the process of project activities in the development of advent calendars for the domestic Ukrainian market.

Our research involved: future graphic designers who studied in 2018–2023 at the Kramatorsk Vocational College of Technology and Design, Design major, 41 persons, future graphic designers

who studied in 2021–2023 at the Educational and Scientific Institute of Culture and Arts, State institution Luhansk Taras Shevchenko National University, Graphic Design major, 6 persons. Images from the educational projects of these students were used as illustrations in this article. The total number of implemented educational projects of advent calendars was 47 units.

The participants in our study were college students who were not required to use any specific advent calendar design solution. The research was conducted in three parts: firstly, the primary survey, which provided an idea of how references were selected, secondly, it was followed by personal interviews of individual participants, which were transcribed and analyzed for content, thirdly, examples of calendar artifacts were collected for our analysis. The results of our study include the dependence of the final result on the selected references. The essence of the method is that the respondent is offered a series of two or more alternatives and the task is to choose the most acceptable of them. Alternatives are references that interest the graphic designer. They are described using a number of identical signs (characteristics) with different meanings. Since the values of the signs vary independently of each other. This allows you to reveal the weight of each of them in the analysis process. (Gray, 2009). We are aware that each method of data collection has its own advantages and disadvantages and should be applied in studies whose purpose corresponds to the purpose and capabilities of each particular method. The discrete choice method has many advantages in terms of the reliability of the data obtained and the relative simplicity of their analysis. Its disadvantage, however, can be considered the complexity of the research design and the greater time spent on conducting the survey in comparison with classical methods of measuring attitudes.

The theoretical basis for using a discrete choice experiment is the assumption that the respondent in each case chooses the alternative that is the highest level of utility for him. A person is able to accept more of one characteristic at the expense of keeping less of another, that is, to find a balance between two characteristics, taking into account their expediency for himself in a specific situation. Mathematically, the real utility function Cn can be described as follows:

$$P(a^{\,n}|C_n) = P[(V_{an} + E_{an}) > (V_{jn} + E_{jn})] = P[(V_{an} - V_{jn}) > (E_{jn} - E_{an})]$$

U – is the real but unobserved utility of alternative a for person n,
V – observable reference component,
E – unobserved reference component (unexplained choice).

Then the probability that a person will choose alternative a rather than j from the set of alternatives is described by the equation:

$$U_{an} = V(X_{an}) + E_{an} = \beta_a + \beta_n X_{an} + E_{an}$$

At the same time, the explained part is an additive part of the function of individual attributes.

According to the descriptive characteristics, the modern Ukrainian advent calendar can be considered an active object of interaction with the user, an object of an artificial environment with informative-game, decorative and communicative functions, which includes the indication of days and additional information, involves the correlation of an event with a sequence of actions and a certain type of transformation, as coloring, destruction. Most modern Ukrainian advent calendars are complete editions.

The basis of the publication set is a poster (on which all the days of the waiting period are marked in a certain rhythmic structure), which is supplemented with stickers as elements of indication of completed tasks (days), task forms, letters, instructions, etc. But since every "consumer" of the advent calendar, using the advent calendar, seeks to feel positive emotions in anticipation of the holiday, especially against the background of modern global problems, this requires new visual solutions.

To solve this task, in the process of searching for references, graphic designers unknowingly, accidentally or intentionally accumulate a certain amount of materials based on internal, mental images

and external influences (Gonçalves et al., 2011), in an aggregate that can look like a mood board (Fig. 2) with references identified according to categories, for use in the design process as visualized knowledge with further: analytical fragmentation of the basic visual material in accordance with the functions to be performed by the ascending image, which is correlated with the tasks and the place of the element in the projected design object, its connections with other elements of the project; refinement, when an already existing reference or its element, which in terms of content corresponds to the design task, is refined, clarified, specified; and/or adaptation, when the existing reference is changed, while preserving some characteristics of the basic visual material, but adjusting to the needs of the project; or interpretation, when the existing reference becomes the basis for a new image with the maximum expression of creativity and novelty in the solution.

Fig. 2. Moodboard. Author Hanna Kozachenko (student)

So, the deer does not have a stable perception as a component, which can take place when designing an advent calendar for the domestic Ukrainian market. Depending on the personality of the designer and the task to be performed, deer can be sought out as references and imagined as: a fawn, a child who came to say hello, play with the main actors defined by the concept of the advent calendar (influence of the local inner environment of the designer); a doe (often with fawns), a gentle mother who brings children into the world, takes care of them, brings them up, gives a feeling of comfort and celebration (the influence of the designer's local or general inner environment); a deer, a representative of the flora of the forest-steppe zone of Ukraine, a noble and infrequent guest (the influence of the designer's general external environment); a Christmas deer accompanying the journey of the main character of the Christmas holidays in the Western European tradition of Santa Claus (influence of the designer's local external or general internal environment); and go through the process: *interpretations*, if the idea of a fawn and/or a fawn is embodied; *refinements or adaptations*, if a red deer is embodied; *adaptations or interpretations*, if the Christmas deer is embodied (Fig. 3).

As another example of internal processing of visual material by a graphic designer, we can cite a frequently used element of New Year's holidays – a light garland (Fig. 3, 4). The visualization of the light garland, according to analytical fragmentation, is significantly dependent on the general idea of the project and the personal preferences of the designer, and can be manifested in a funny light rib-

Fig. 3. Christmas deer. Author Yelyzaveta Dzhyhola (student)

bon that mice play with (influence of the local inner environment of the designer), in the illuminated straps of Santa's reindeer harness (influence the general internal environment of the designer), an analog light garland decorating the wall with boots as indicators of the approach of the holiday (the influence of the general external environment of the designer).

So, we predicted that the references and the final result have a connection. The question was how strong this connection is and how the internal and external interact in it. That is why we were not interested in individual graphic designers. More precisely, we were not interested in individual graphic designers, since they are an integral part of the group we are studying. We can study the advent calendar activities of a certain graphic designer, but not because we want to know more about the designer "Prokopenko", but because we think that by observing the designer "Prokopenko" we

Fig. 4. Lighting garlands

Authors (students) Iryna Ryhun (left), Kateryna Behovcha (right)

can get a better idea of future graphic designers. designers in general and we can learn to predict their activities. From this point of view, our task is to study groups of specialists, such as a set of higher education graduates (future graphic designers), graphic designers who have not received formal education, and graphic designers who already have many years of professional experience. In order to study the influence on the selection of references by future graphic designers, we collected data on individual higher education applicants and summarized them in data tables to summarize information about the group as a whole.

Very good solutions are often created at the level of results of analytical work, because the source of this knowledge is the very graphic designers who created the future project. Now the most important methods of analytical work will be briefly discussed:

a) Personal interviews are a method that allows for in-depth research, which is conducted with the participation of the researcher and the respondent.

b) Survey research – research aimed at studying a certain problem in a wider group of respondents. Unlike face-to-face interviews, surveys aim to help explore the opinions of a wider group of respondents.

c) Segmentation research – research, the main purpose of which is to impose external cognitive categories on respondents.

Based on the results of work with each respondent, a survey was conducted during which it was found out what guided each of them when selecting references. Attention was also drawn to how the own project of the advent calendar was implemented. We aimed to determine the dependence of the choice of alternatives on such characteristics as the proximity of references and the environment of the graphic designer. The respondents' questionnaire included questions about the designer's internal and external environment, and an explanation of the selection of references. When explaining the selection of references, the respondent had to choose answer A (the proximity of references is local) or B (the proximity of references is general), or refuse the explanation. Thus, the respondent had three alternatives. The theoretical basis for using a discrete choice experiment is the assumption that the respondent in each case chooses the alternative that is the highest level of utility for him.

The first step in the research was to determine the proximity of the references and the environment of the graphic designers. It was decided to analyze the influence of references on the final result – the advent calendar. Each of the attributes has several values (model). The more values and attributes used in the analysis, the more complex the research. Empirical studies using this method recommend using no more than 10 descriptive attributes and no more than 20 questions for each respondent.

We took into account the results of research that the high complexity of the questionnaire can affect the conscientiousness of people when filling it out. In our case, two attributes were used. This gave us the opportunity to obtain a database with recorded information about what each of the respondents was guided by when selecting references.

The next step was to determine the presence of a correlation between the proximity of references and the graphic designers' environment as attributes that determine the graphic designers' decision regarding the final design of the advent calendar (Table 1).

Table 1

Correlation of influences on the selection of references by a graphic designer

	The graphic designer's environment (internal)	**The graphic designer's environment (external)**
The proximity of references (local)	0,584	0,155
The proximity of references (general)	0,359	0,645

Spearman's correlation coefficient (ρ) (The proximity of references (local) and The graphic designer's environment (internal)) is 0.584. The connection between the studied features is direct, the strength of the connection according to the Chaddock scale is noticeable. The number of degrees of freedom (f) is 19. The critical value of Spearman's test with this number of degrees of freedom is 0.435. ρ approximate > ρ critical, the dependence of signs is statistically significant ($p<0.05$).

Spearman's correlation coefficient (ρ) (The proximity of references (general) and The graphic designer's environment (external)) is 0.645. The connection between the studied features is direct, the strength of the connection according to the Chaddock scale is noticeable. The number of degrees of freedom (f) is 19. The critical value of Spearman's test with this number of degrees of freedom is 0.435. ρ approximate > ρ critical, the dependence of signs is statistically significant ($p<0.05$).

Therefore, the results were analyzed as a comprehensive indicator. The analysis was performed according to the critical values. The prediction that formal education increases the probability of choosing references presenting established cultural traditions and social values was confirmed. It should be noted that the references selected by the authors under the influence of the local immediate environment had the greatest individual color, the maximum characteristics of unpredictability, since their selection was influenced by the variety of internal relationships established during life.

Conclusion. The search for basic visual materials when designing design objects is characterized by complexity, even integrity, especially in the context of the design structure of the advent calendar. What we see in the perspective of time, ideas, values. In graphic design, an idea is important from which a design concept and finally a viable solution can emerge. We came to the conclusion that the implementation of the idea depends on the factors that influence the process of selection of basic visual materials by the designer when designing the design object.

It is the development of the idea based on the search for basic visual materials that is important for the design of the design object. Directly in the practice of graphic design, the relationship to the system of basic visualization techniques is significantly contradictory. It is known that an important principle of the professional activity of a graphic designer is the variety and uniqueness of graphic solutions. But many signs testify to the universality and systematicity of the language used in graphic design. We are not referring to the usual pictorial means that, falling into the stream of fashion, are spread in the graphics of many countries, but also to those single norms of the internal organization of the visual text that are inherent in the language of graphic design as a whole. The existence of such norms is confirmed, for example, by the very possibility of using certain symbols and colors determined by the graphic designer's external environment. It is certain that certain mechanisms of visual thinking are the basis of accurate decisions.

Without exhausting the variety of expressive means of visual language, the system of basic techniques for finding basic visual materials in the design of design objects provides an operational basis, beyond the limits of which a purposeful solution to design tasks of any complexity is impossible.

References:
1. Adams, S. (2021). *How Design Makes Us Think: and Feel and Do Things*. Princeton Architectural Press.
2. Attfield, J. (2000). *Wild Things. The Material Culture of Everyday Life*. New York: Berg Publishers.
3. Berger, P. L., & Luckmann, T. (1981). *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Penguin Books.
4. Borysova, S. V. (2021). Kharakterystyka suchasnykh ukrainskykh advent-kalendariv yak obiekta proiektuvannia [Characteristics of modern ukrainian advent calendars as an object of design]. *Humanities science current issues: Interuniversity collection of Drohobych Ivan Franko State Pedagogical University Young Scientists Research Papers*, 36(1), 9–16. Drohobych: Publishing House "Helvetica". doi.org/10.24919/2308-4863/36-1-2. [in Ukrainian].

5. Borysova, S. (2023). Borrowing in Visual Art Works: Aspects of Attitude Formation in the Educational Environment. *Culture and Arts in the Modern World*, (24), 90–99. doi. org/10.31866/2410-1915.24.2023.287664.

6. Cardoso, C., Gonçalves, M., &Badke-Schaub, P. (2012). Searching for inspiration during idea generation: pictures or words? *International Design Conference "Design 2012 Dubrovnik"*, 1831–1840. Croatia. Retrieved from https://www.designsociety.org/download-publication/32152/ SEARCHING+FOR+INSPIRATION+DURING+IDEA+GENERATION%3A+PICTURES +OR+WORDS%3F.

7. Conover, W.J. (1999). *Practical nonparametric statistics* (3rd ed.). New York: John Wiley & Sons.

8. Coxon, I. (2006). Designing from Dasein: explicating design futures from hermeneutic conversations with Authentic personal experience. *Conference "Wonderground 2006" Design Research Society*. Lisbon. Retrieved from https://www.researchgate.net/publication/236241233_Designing_from_Dasein_explicating_design_futures_from_hermeneutic_conversations_with_Authentic_personal_experience.

9. Eckert, C. M., & Stacey, M. K. (2000). Sources of inspiration: A language of design. *Design Studies*, 21(5), 523–538. doi.org/10.1016/S0142-694X(00)00022-3.

10. Frutiger, A. (2022). *Człowiek i jego znaki* [A man and his signs] (5th ed.). Kraków. [In Polish].

11. Gentner, D., & Markman, A. B. (1997). Structure mapping in analogy and similarity. *American Psychologist*, 52(1), 45–56. doi.org/10.1037/0003-066X.52.1.45.

12. Goldschmidt, G., & Sever, A. L. (2011). Inspiring design ideas with texts. *Design Studies*, 32(2), 139–155. doi.org/10.1016/j.destud.2010.09.006.

13. Gonçalves, M., Cardoso, C., & Badke-Schaub, P. (2011). Around you: how designers get inspired. *International Conference on Engineering Design ICED 2011*. Copenhagen: Technical University of Denmark. Retrieved from https://www.researchgate.net/ publication/259704787_Around_you_How_designers_get_inspired.

14. Gray, R. M. (2009). *Probability, Random Processes, and Ergodic Properties* (2nd ed). Springer.

15. Leonard, N., & Ambrose G. (2013). *Basics Graphic Design 03: Idea Generation*. AVA Publishing.

16. Marshall, J. (2007). Image as Insight: Visual Images in Practice-Based Research. *Studies in Art Education*, 49(1), 23–41. doi.org/10.1080/00393541.2007.11518722.

17. Özcan, O., & Güzererler, A. (2018). Re-reading design: cultural analogies for inspiration in interaction design. *The Turkish Online Journal of Design, Art and Communication,* 8(2), 364–375. doi: org/10.7456/10802100/015.

18. Rodgers, P., & Strickfaden, M. (2007). References in the design process milieu. In J.-C. Bocquet (Eds.), *ICED'07 16th International Conference of Engineering Design*. Paris. Retrieved from https:// www.researchgate.net/publication/235700626_References_in_the_design_process_milieu.

19. Rose, G. (2016). *Visual Methodologies: An Introduction to Researching with Visual Materials* (4th ed.). London: Sage.

20. Rosińska, M. (2011). *Przemyśleć u/życie. Projektanci, przedmioty, życie społeczne* [Rethink your/ life. Designers, objects, social life]. Warszawa: Bęc Zmiana. [In Polish].

21. Strickfaden, M., & Heylighen, A. (2010). Cultural Capital: A Thesaurus for Teaching Design. *International Journal of Art & Design Education*, 29(2), 121–133. doi.org/10.1111/j.1476-8070.2010.01653.x.

22. Strickfaden, M., Stafiniak, L., & Terzin, T. (2015). Inspired and Inspiring Textile Designers: Understanding Creativity Through Influence and Inspiration. *Clothing and Textiles Research Journal*, 33(3), 213–228. doi.org/10.1177/0887302X15578263.

23. Tatham, C., Armstrong, W., & Armstrong, J. (2011). *Fashion Design Drawing Course: Prin ciples, Practice, and Techniques: The New Guide for Aspiring Fashion Artists*. Hauppage: Barron's Educational Series Inc.

24. Traindl, A. (2007). *Neuromarketing: die innovative Visualisierung von Emotionen Retail branding* [Neuromarketing: the innovative visualization of emotions Retail branding] (3rd ed.). Trauner. [In German].

25. Wszołek, M., & Moszczynski, K. (2015). Algorytmizacja procesów projektowych [Algorithmization of design processes]. *Communication Design: badanie i projektowanie komunikacji*, 4, 173–193. Retrieved from https://www.researchgate.net/publication/284030174_Algorytmizacja_procesow_ projektowych#read. [In Polish].