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**ІНІЦІАТИВНИЙ КОНЦЕПТУАЛЬНИЙ ПРОЕКТ «БЕЗПЕКА».
ДОСВІД КОЛЕКТИВНОЇ ОРГАНІЗАЦІЇ НАВЧАЛЬНОГО ПРОЦЕСУ
СПЕЦІАЛЬНОСТІ 022 «ДИЗАЙН» У ХНУМГ ІМЕНІ О.М. БЕКЕТОВА**

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Статтю спрямовано на вивчення актуального питання безпеки громадян за умов чинного військового конфлікту. Наукова новизна статті базується на особистих переживаннях, практичному досвіді проживання цієї реальної ситуації та спробі систематизувати підходи до покращення ситуації у контексті безпеки. Запропоновано комплексну дизайнерську концепцію вирішення проблем щодо вдосконалення існуючих та планування майбутніх заходів для колективної безпеки. Усі проектні рішення мають дизайнерську основу, досить глибоко опрацьовані та зібрані у єдиний альбом рекомендацій ініціативного концептуального проекту «Безпека». Альбом містить три розділи: особиста безпека, регіональна безпека та державна безпека. У розділі «Особиста безпека» представлені проектні пропозиції щодо розробки дизайну інтер'єрів приміщень та їх предметного оснащення (проект двоярусного та трьох ярусного ліжок; проект сидінь та місце зберігання речей; комплект трансформованих столу та стільця; система зонування; організація гігієни та медична аптечка загального користування; система висвітлення). У розділі «Регіональна безпека» розглядаються питання організації укриттів на основі існуючих приміщень різного формату міської інфраструктури. У розділі «Державна безпека» представлено концептуальну проектну пропозицію щодо облаштування розгалуженої мережі сучасних укриттів по всій країні.

Ключові слова: промисловий дизайн і дизайн інтер'єру, дизайн візуальних комунікацій та мультимедійний дизайн, безпека.

Introduction. Today's situation, in the context of the military conflict in Ukraine, has revealed that one of the most acute and important problems is providing the country's citizens with proper security. During the period of modern Ukraine, the system of shelters and safe havens was not maintained at the proper level and fell into complete disrepair. According to the most recent census, 43.5 million people lived in Ukraine at the beginning of hostilities. According to the latest data from the UN refugee agency, 7.8 million Ukrainians are abroad. If we take these data into account, we get a figure of 35.7 million people [1]. Therefore, the issue of ensuring the security of such a large number of citizens is urgent and quite acute. It should be noted that this applies to the entire territory of Ukraine, since even the displaced persons who left the immediate areas of combat operations and moved to the central and western parts of the country also do not have adequate means of protection: missile and bomb attacks can equally catch citizens whether in Kharkiv, Kyiv or Lviv [2, 3, 4].

Directly faced with this problem and experiencing it on the ground, students and teachers of the departments «D3D» and «DI» O.M. Beketov National University of Urban Economy in Kharkiv proposed an initiative conceptual project «Bezpeka», which set out the basic proposals for the organization of personal and collective security of Ukrainian citizens during military operations.

The main statements of the article. The citizen of any country is the basic unit of society; the welfare of the state depends on his/her safety and well-being. The citizen, as an individual, lives in different socio-economic conditions: in villages, cities, which form the regions or areas of the country, of which, in turn, the state is composed. The management processes of these administrative formations are different and can only be effective if they interact consistently and correctly. The same applies to the process of ensuring the security of citizens. This is the basis of the general conceptual solution at different levels of security: personal, regional and state [5; 6].

In a more detailed elaboration of the concept, the team relied on the policy documents of The Ministry of Internal Affairs of Ukraine (Order from 09.07.2018 № 579 «On approval of requirements for the use and accounting of civil defense protective structures fund»); State Emergency Service of Ukraine (Addendum to the letter dated 14.06.2022 № 03-1870/162-2 «Recommendations on sheltering in the civil defense protective structures fund of personnel and children»), DSTU on shelters organization (DBN B.2.2.5-97 «Protective constructions of civil defense» and changes №4 dated 2019).

Protective structures are designed to shelter the population from means of mass destruction in a special period and emergencies in peacetime and are the main type of collective protection of the population. Protective structures for civil protection include:

- storage facility – sealed structure for the protection of people, in which conditions are created for a certain time, for excluding the impact on them of hazards arising from emergencies, military (combat) activities and terrorist acts;
- radiation shelters (RS) – non-sealed structures for the protection of people, which create conditions that exclude the effects of ionizing radiation on them during radioactive contamination of the area;
- a dual-use facility is an above-ground or underground facility that can be used for its primary purpose and for the protection of the people;
- the simplest shelters are a fortification structure, a basement or basement room, which reduces the combined impact on people from the dangerous consequences of emergencies, as well as from the action of means of destruction in a special period.

By purpose:

- for the protection of the people;
- for placement of administrative bodies, medical institutions.

Location:

- built-in;
- freestanding;
- subways;
- mining excavations.

On the timing of construction:

- built on time;
- quickly built up [7].

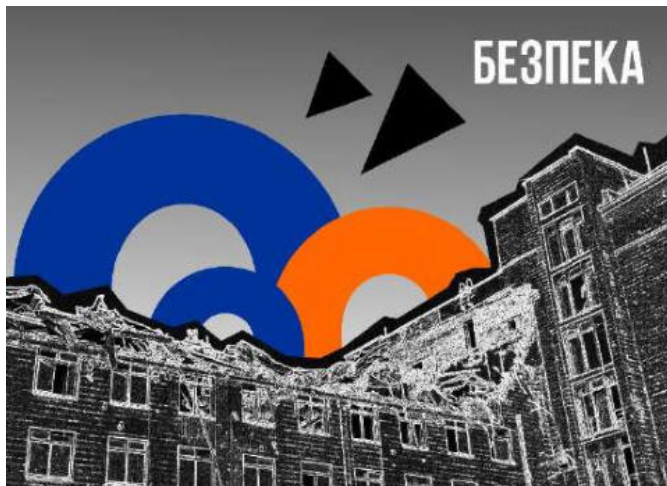
A citizen has a set of basic skills and values, and lives in a particular place. First of all, he interacts with this place: he works, rests, brings some benefits to the state. Accordingly, the state must create comfortable living conditions for the citizen at the place of residence and work. Personalization of these conditions takes place in a region or area that is part of the state: the more developed the region, the better the citizens live in it, the stronger and more developed the state is.

Regions should have equal rights and equal conditions for development, taking into account their regional and territorial specifics, geographical conditions, availability of minerals, development of the industrial sector of the economy, etc. And the state by its actions, such as adoption of laws and other decisions should contribute to the equal development of each region. That is why the concept is based on the connection – a citizen (person), the place of his residence (region), which constitute the essence of any state.

Security levels. Based on such a strategy, the scientific and pedagogical staff of the Departments «Design and 3D-modeling» and «Design and Interior», together with the students of different courses it was decided to develop a conceptual initiative project «Bezpeka» in the form of an album of recommendations, which will help organize a shelter for citizens during wartime and make it most comfortable not only with the basic needs, but also taking into account the psychological condition of people, especially children.

For visual perception of the project, an identity of the project proposal was developed by the fourth-year students of the group Design 2019-2 (professional unit «Visual communications and multimedia design») Makarenko K. and Likhacheva O., supervised by head of the «DI» department Vergunov S. Its main element is the «brand block», which consists of a pictorial sign and the «Bezpeka» logo. The sign is a composition of three toroidal elements, symbolizing the physical concept of «shelter», which is «attacked» by rapidly approaching missiles and shells, made in the form of isosceles triangles. The composition with all its appearance and image, by the proportional ratio of visual masses, the semantic meaning of the conjunction «attack–defense» creates a convincing image of the process of protection and security.

The color and texture solution of the sign is based on a combination of blue (RGB 0; 51; 153) and orange (RGB 255; 102; 0) colors, corresponding to the corporate colors of the State Emergency Service of Ukraine in terms of pictorial elements of protection and black color in terms of aggressive danger. The sign was used on each page of the album of recommendations, enhancing the visual meaning of the latter in terms of graphic design. The sign shown in Fig. 1. was also the main formative element of the recommendation's album cover.



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Fig. 1. «Bezpeka» sign. Album cover

The album of the initiative conceptual project «Bezpeka» consists of three sections:

- Personal security;
- Regional security;
- State security.

Each section consists of specific items and objects which, as a whole, will contribute to citizen safety at these three levels.

Personal security. In the first block «Personal security» recommendations were offered with regard to the following problems: navigation system, which allows you to quickly navigate and get to a safe place; early detection of radioactive contamination as a particularly dangerous situation; the problem of providing a citizen with a minimum set of individual means of life support.

The key to successful security is the timely notification of citizens. In the present conditions this is done with the help of special sound signals, the emitters of which are located on the territory of the country. They are quite effective, but only in the sense of stating the fact of air alarm. Hearing this signal, the citizens should proceed to the nearest shelter and the main problem of this situation is that most citizens do not know where this nearest shelter can be found. In addition, there is a category of people with hearing problems who may not hear the alarm being sounded. The conceptual project of the application for cell phones «To the Shelter», proposed by the student Makarenko K., is intended to contribute to the solution of this double problem.

Living in the city of Energodar, which is a satellite city of the Zaporizhzhya nuclear power plant [8], student Likhacheva O. was concerned about the problem of citizens' timely reaction to the possibility of radioactive contamination. To solve this problem, she proposed an alarm kit in the form of a cell phone application «Radiation Safety» and a special device similar to a Geiger counter connected to the phone. It can be used to find out the level of radiation background. The program is designed as an additional component of the device. The application allows not only to see the radiation level, but also provides useful information on what to do in such situations. This is especially relevant against the background of the dangerous situation around ZNPP at the moment.

The problem of emergency evacuation includes a set of vital items needed to survive in extreme conditions. For these purposes, a second-year student of Design 2021-2 group (professional unit «Industrial design and interior design») M. Kolesnikova, supervised by head of «DI» department prof. S. Vergunov, developed a project of «Emergency suitcase».

This development was preceded by a survey in a focus group of students and teachers of O. Beketov National University of Urban Economy in Kharkiv, who are familiar with this problem firsthand, and live it every day for more than a year, which allowed to determine the list. The consolidated list of these subjects is as follows: Documents in a waterproof bag (personal and for property); Money, credit cards; «Important things» (jewelry, memorabilia, which is better not to leave at home); DC-kit (Every Day Carry) – the term refers to a set of items carried with you every day, which are used regularly, or the need for which may arise in various non-standard and extreme situations; Multitool type device; Charger with charging wire for the phone, portable battery (Power Bank); Flashlight LED; Lighter; First aid kit: general medical supplies (for pain, diarrhea, sedatives) and some specific in case of chronic diseases, for example – in case of asthma an inhaler is needed; Sewing kit; Water (1.5 liters); Dry food: chocolate/energy bars/cookies, snacks, bread slices, croutons; Canned foods; Camping fork-spoon, folding glass; Compact camping water filter; Hygiene products, wet wipes,

antiseptic; Electronic gadget: laptop, tablet, e-book; External hard drive with copies of important files; Clothing (depends on the time of year); Notebook and pen.

Their number and physical size made it possible to intuitively determine the dimensions of the «Emergency suitcase». Taking into account that the nearest shelters may be at some distance from the user at the time of arising danger and that he may have other needs, in particular a need for accompanying family members to shelter (children, elderly parents, the presence of pets), the design of the alarm suitcase is made in the form of a special multifunctional backpack. Its volume provides a reasonable and compact placement of essentials presented in the above list. A distinctive feature of this project proposal is the use of a universal mat-covering. The design premise in this case is based on the fact that in shelters, unusual situations may arise during the stay of users. In particular, these can be rooms that are not suitable for shelters – basements of houses, cellars, underground vaults, etc., in which there is no place to sit or lie down. The presence of this mat-covering allows to arrange a relatively comfortable environment for the user. The mat itself is made of polyurethane and placed in a cover made of special water-repellent fabric [9].

Regional security. The main set of questions, which were solved in the second section of the «Regional security» album of recommendations was the systematization of actions to organize shelters on the basis of premises of various formats of urban infrastructure [10; 11]. The solution of these issues is illustrated by the proposal to create a shelter organization project in the central building of O.M. Beketov National University of Urban Economy in Kharkiv and in premises in the dormitory No.1.

These proposals consist of the design of the interiors of the rooms and their object equipment. The latter include:

- the project of two-tier beds and three-tier beds;
- design of seating and storage space for items;
- a set of transformable table and chair;
- zoning system;
- organization of hygiene and a medical kit for general use;
- lighting system.

The project of two-tier and three-tier beds, made by a fourth-year student of the group Design 2019-1 (professional unit «Industrial design and interior design») Mikhaleva Y., supervised by assistant of «D3D» department Shevchenko K., is a collapsible metal construction based on a square-tube with a section of 30 mm. This design allows you to quickly move the item in a compact form between different rooms. Glued plywood 10 mm thick is used as supporting planes. The bed's dimensions are 800x2000 mm, and the rest of the parameters meet the ergonomic requirements of the human body. For ease of use the project provides a separately mounted staircase 400 mm wide. To create a favorable emotional atmosphere in the design of the bed there are «curtains» made of perforated plywood sheet, which can be used to partially close the bed from external stimuli.

The project of seating and storage space, made by a fourth-year student of Design 2019-1 group (professional unit «Industrial design and interior design») Alexeenko A., supervised by assistant of «D3D» department Shevchenko K., is a universal design, which allows to organize places for seating both individually and in groups. The versatility of the construction implies that in addition to the function of seating, it allows you to temporarily store your personal belongings (bag, briefcase, backpack, etc.). Construction materials are similar to those used in the design of beds.

It is not rare cases that alarms can have a relatively long character and duration, so in addition to providing simple seating for rooms of this type it is also appropriate to provide a set of table and chairs, which can be used to organize leisure time of children and adults, eating, conducting classes with schoolchildren and students, etc. For this purpose, there was developed a project of transformable table and chair, made by a third-year student of Design 2020-1 group (professional unit «Industrial design and interior design») Maleta S., supervised by assistant of «DI» department Moroziuk Y. The peculiar feature of the project is its transformation, which is necessary for quick transportation, comfortable carrying in/out, organization of dining or training zones, as well as compact warehousing and storage. The frame of the table and the chair are made of 20 mm metal pipe and the table top and seat are made of 8 mm thick plywood.

Practical experience of being in extreme conditions of military actions showed that, in particular, because of the destructions in the «Pivnichna Saltivka» residential area in Kharkiv, people from the damaged and destroyed houses were forced to live for several months in subway stations, in underground passages and in the common halls of public premises. Such a situation of a large gathering of strangers caused a certain discomfort and negative emotions, aggravating the already difficult moral situation. To solve this problem, a fourth-year student of Design 2019-1 group (professional unit «Industrial design and interior design») Narizhna I., supervised by assistant of «D3D» department Shevchenko K., developed a mobile partition, which can provide zoning of common space, allocating the necessary amount of space for one, two or more users. Structural materials are

similar to the previous projects and are a metal frame with plywood filling. As for the varieties of filling, the use of different board materials is possible here, which will expand the functional purpose of the mobile partition. In particular, a laminated MDF board can be installed, which can be used as a study board.

It should be noted that the choice of materials for all projects is primarily due to the economic factor, because the use of such objects is assumed to be many millions. This also includes the technology of production, it's also quite simple and do not require large investments for the manufacturing of special equipment. At the same time the use of design tools such as transformation, compositional balance, proportional relationship allows you to find an attractive aesthetic image.

In some cases, the premises intended to be used as shelters may not have a water supply and sewage system. In order to maintain proper sanitary condition of users, Titova T., a fourth-year student of Design 2019-1 group (professional unit «Industrial design and interior design»), supervised by assistant of the «D3D» department Shevchenko K., designed a mobile washbasin. With its help users can carry out a basic hygienic procedure: washing or handwashing.

The same student also developed a general medical kit for emergency care. Its internal arrangement is zoned for certain groups of medicines. The presence of medicines in this first aid kit meets the requirements of the Ministry of Health of Ukraine, so it ultimately determined its linear dimensions. Principle of transformation of this design solution allows effectively manage the issuance and use of medicines. The hinged design allows to install the medicine cabinet in the right place in any room.

Due to the fact that most of the rooms, supposedly used for shelters, are basement and semibasement, the presence of lighting in them is episodic and random. To fill this gap, the fourth-year student of the Design 2019-1 group (professional unit «Industrial design and interior design») Malinovskaya D., supervised by assistant of «D3D» department Shevchenko K., proposed a system of lighting organization of such premises. It is a set of pathways with connecting elements and a basic set of lamps. Lamps of the both general lighting and local directional light are provided. With their help, you can quickly and intelligently organize a lighting system within the specific dimensions of a particular space. The whole design of lighting is overhead type, which greatly facilitates and simplifies its installation.

For visual illustration of design proposals and for summarizing the experience, two interior design projects were developed: a shelter in the central building of O.M. Beketov National University of Urban Economy in Kharkiv and a room in a dormitory № 1, the authors – third-year students of Design 2020-2 (professional unit «Visual communication and multimedia design») D. Mironenko and K. Molodykh, supervised by assistant of «D3D» department Golius V. The perspective planning solution of these premises was carried out. The general design solution of the interiors involves the use of warm, calm colors, which will contribute to the stabilization of the emotional state and psychological relief of the user.

To strengthen the positive psychological effect, relieve stress or at least reduce it, a fourth-year student of Design 2019-2 group (professional unit «Visual communication and multimedia design») Saldan K., supervised by associate professor of «D3D» department Vergunova N., proposed a project of modular-decorative interior design. It represents a set of three basic modules of 1000x1000 mm in size. The student chose floral design as the main theme. This is due to the fact that the users of these rooms are mostly women and children who are a priori close to the theme of flowers. Basic decorative elements include the image of a pure background, one flower in the background and its fragment. Picking up from these elements of the overall decorative solution, you can easily fill the space of walls, harmoniously integrating them into the overall concept of the interior. Such a solution implies multivariance in creating unusual floral compositions [12].

Also, for stabilizing the psychological state [13], a third-year student of Design 2020-2 group (professional unit «Visual communication and multimedia design») Nikitchenko A., supervised by the assistant of «D3D» department Stonoga D., offered individual and multiplayer game for children and adults.

One of the factors of timely response to airborne alarms is the navigation system, through which consumers can get all the necessary information on the location of shelters and on the rules of conduct in such situations. This navigation system is used both indoors and outdoors in urban infrastructure. Goncharenko O., a fourth-year student of Design 2019-2 group (professional unit «Visual Communications and Multimedia Design»), supervised by assistant of «DI» department Zinchenko A., proposed the concept of signs and integrated text messages for them. With their help, routes to the shelter inside premises are organized with the indication of all the necessary information.

A third-year student of Design 2020-2 group (professional unit «Visual Communication and Multimedia Design») Petrenko A., supervised by assistant of «DI» department Zinchenko A., adapted objects of this concept for use in the external environment of urban infrastructure. A peculiar feature of this design proposal was to equip these signs and information with special lighting for evening and night, as well as with special sound signals for visually impaired users. The autonomy of these devices is provided by «solar batteries»

(panels), which accumulate the necessary energy during the day to ensure operation at night. This project is a transition from the «Regional security» level to the «State security» level.

State security. In the context of the «State Security» level, a conceptual design proposal for an extensive network of modern shelters across the country was presented, the project «Shelter. A Modern View» was developed by third-year students of the Design 2020-2 group (professional unit «Visual Communications and Multimedia Design») D. Dikovskaya and V. Ereemeeva, supervised by associate professor of the «D3D» department Vergunova N. This conceptual project involves large financial investments, so the main idea of its implementation is to find investors interested in developing of their own business. In today's conditions, such a business could be the arrangement of parking spaces and underground garages for cars. Today in all cities of the country this problem is urgent and unquestionable.

The main idea of the project is that the city authorities allocate free land for the construction of such facilities, and the investor, in turn, allocates a certain amount of area for the creation of a modern shelter for citizens. The students planned a certain space for comfortable stay of 500 users on the example of Zaporizhzhya and Kharkiv. The layout of the space includes sleeping area, eating area, sanitary blocks, playground for children, medical station, room for mother and child, room for pets, and sectors for temporary storage of bicycles and strollers. In addition, the shelter space includes special rooms, according to the policy documents, in particular, DBN B.2.2.5-97 «Protective structures of civil defense».

All facilities are underground, but additional parking lots, playgrounds and sports grounds, special sectors for walking dogs, park areas for recreation, etc. can be equipped on top as needed. All these objects are not widely represented in the infrastructure of Ukrainian cities. In addition, the proposed planning solutions allow to quickly repurpose the function of the shelter in the function of the educational hub, a creative workshop and co-working in different industries.

For convincing and reasonable figuration of all project proposals in one album of recommendations junior students were also involved. A second-year student of the Design 2021-1 group (professional unit «Industrial design and interior design») Krivoslykova A., supervised by the senior lecturer of the «DI» department Zvenigorodsky L., provided explanatory support, formulating the individual conceptual proposals in a single text, oriented it according to the regulatory framework of the State Emergency Service of Ukraine (Addendum to the letter dated 14.06.2022 № 03-1870/162-2 «Recommendations for the organization of protection in facilities of the fund of protective structures of civil protection of personnel and children»).

For greater expressiveness of the visual row of the album a first-year student of the group Design 2022-1 Kuleshova K., supervised by the assistant of «DI» department Zinchenko A., made a series of ergonomic figures and images of potential users, which were used depending on the theme of the project proposal.

In addition to the printed version of the album of recommendations of the conceptual project «Bezpeka» the author's team also planned the dynamic version for electronic representation. At the moment, a second-year student of Design 2021-2 group (professional unit «Visual communications and multimedia design») Yunina E. is working on it, supervised by the assistant of «DI» department Moroziuk Y.

Conclusion. In the process of working on the initiative conceptual project «Bezpeka» students got a unique joint experience of working on real project proposals. Moreover, the relevance of the topic, aimed at the concern for the universal safety of the citizens of the country, was the connecting factor, when students of different courses purposefully, coherently and convincingly worked on the given topic in the framework of training. It was a positive experience of the collective organization of the educational process of the specialty 022 Design in O.M. Beketov National University of Urban Economy in Kharkiv not only for students, but also for scientific and pedagogical staff.

From a practical point of view, all the projects turned out to be deep enough, they are reasonable and useful in the context of today, and the level of their quality is as close as possible to the design products in the rank of prototype. Under the right conditions and the level of demand, they can be further developed in cooperation with specialists from various industries (constructors and technologists) for the launch of serial production. Conceptual proposals for the organization and transformation of existing facilities into the status of «shelter» can also be implemented fairly quickly with appropriate funding and the necessary will. The conceptual proposal of the project «Shelter. Modern view» has a long-term perspective and is a base point for further work and interaction of state structures and private business.

The theoretical significance of the conceptual initiative project «Bezpeka» consists in an attempt to structure the factors of ensuring security in conditions of military conflict. This approach and the obtained design materials can be used to develop a methodology for such projects as a whole and in writing teaching assignments and methodological recommendations for a number of academic disciplines, «Design», «Visual Communications in Design», «Multimedia Technologies in Design», «3D-modeling and CAD-technologies in Design», in particular. Further research is planned to continue the study of the topic of shelter, while focusing more deeply on the social aspects of different consumer groups: children, adults, the elderly.

References

1. The war has worsened Ukraine's demographic woes. URL: <https://www.economist.com/europe/2022/12/12/the-war-has-worsened-ukraines-demographic-woes> (Last accessed: 16.10.2023).
2. Norman Foster reveals Kharkiv reconstruction masterplan. URL: https://www.dezeen.com/2022/12/20/norman-foster-kharkiv-reconstruction-masterplan/?li_source=base&li_medium=bottom_block_1 (Last accessed: 26.11.2023).
3. Weir D., McQuillan D., Francis R.A. Civilian science: the potential of participatory environmental monitoring in areas affected by armed conflicts. 2019. Environmental Monitoring and Assessment Vol. 191 (10). P. 618.
4. Commenter wants «Ukrainian architects to rebuild Ukraine». URL: <https://www.dezeen.com/2022/04/27/norman-foster-ukraine-comments-update/> (Last accessed: 20.11.2023).
5. Rawtani D., Gupta G., Khatri N., Rao P. K. & Hussain C. M. Environmental damages due to war in Ukraine: a perspective. 2022. Science of The Total Environment Vol. 850, P. 157932.
6. Sukhodolia O. Implementation of the concept of critical infrastructure protection in Ukraine: Achievements and challenges. 2018. Information & Security: An International Journal Vol. 40, P. 107–119.
7. DBN B.2.2.5-97 «Protective constructions of civil defense» changes № 4. URL: <https://www.minregion.gov.ua/wp-content/uploads/2022/09/zmina-%E2%84%96-4-merged.pdf> (Last accessed: 29.11.2023).
8. Sparkes M. Uncertain future for Ukraine's nuclear power plants. 2022. New Scientist Vol. 256, P. 11.
9. Aerogel-embedded puffer jacket by Vollebak creates an ultralight insulation that protects you from -30°C cold. URL: <https://www.yankodesign.com/2023/03/03/aerogel-embedded-puffer-jacket-by-vollebak-creates-an-ultralight-insulation-that-protects-you-from-30c-cold/> (Last accessed: 29.11.2023).
10. Luyang S., Huibo Z., Zongxin L., Xiaoxin M., Yue W., Chaorong Z., Jing L.: Chahida Y., Racasana R., Paganía L., Townsendb A., Liuc A., Billsa P., Blunta L. Analysis of moisture buffering effect of straw-based board in civil defence shelters by field measurements and numerical simulations. 2018. Building and Environment Vol. 143, P. 366–377.
11. Suchart S. A review on lightweight materials for defence applications: Present and future developments. 2023. Defence Technology Vol. 143, P. 366–377.
12. Boucharde J., Stiegler N., Padmanabhanunni A., Pretorius T. Psychotraumatology of the war in Ukraine: The question of the psychological care of victims who are refugees or who remain in Ukraine. 2023. Annales Médico-psychologiques, revue psychiatrique Vol. 181, P. 12–15.
13. Suhaiban H., Grasser L.R., Javanbakht A. Mental health of refugees and torture survivors: a critical review of prevalence, predictors, and integrated care. 2019. International Journal of Environmental Research Public Health Vol. 16, P. 23.09.

INITIATIVE CONCEPTUAL PROJECT «BEZPEKA». COLLECTIVE ORGANIZATION OF THE EDUCATIONAL PROCESS OF THE SPECIALTY 022 DESIGN IN O.M. BEKETOV NUUEKH

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The paper is aimed at the study of the actual issue of citizens' security in the conditions of the current military conflict. To achieve this goal, powers of research and design should be involved. The scientific novelty of the work is based on personal practical experience of living in this real situation and an attempt to systematize approaches to improve the situation in the context of security. A comprehensive design problem-solving concept for improving existing and planning future measures for collective security is offered. All the design solutions have a design basis, are elaborated deeply enough and are collected in a single album of recommendations of the initiative conceptual project «Bezpeka». The album contains three sections: «Personal security», «Regional security» and «State security». In the «Personal security» section design proposals are presented for the development of interior design of rooms and their equipment (design of two-tier and three-tier beds; design of seatings and storage space; set of transformable table and chair; zoning system; organization of hygiene and medical kit for common use; lighting system). The «Regional security» section addresses shelter organization based on existing facilities of various urban infrastructure formats. The «State security» section presents a conceptual design proposal for an extensive network of modern shelters throughout the country.

Key words: industrial and interior design, visual communications and multimedia design, security.

ІНІЦІАТИВНИЙ КОНЦЕПТУАЛЬНИЙ ПРОЕКТ «БЕЗПЕКА». ДОСВІД КОЛЕКТИВНОЇ ОРГАНІЗАЦІЇ НАВЧАЛЬНОГО ПРОЦЕСУ СПЕЦІАЛЬНОСТІ 022 «ДИЗАЙН» В ХНУМГ ІМЕНІ О.М. БЕКЕТОВА

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Мета статті – з'ясувати стан практичної розробленості щодо актуального питання забезпечення безпеки громадян за умов чинного військового конфлікту. Методологія. В якості базових методологічних орієнтирів для аналізу конкретних об'єктів та просторів урбитів були використані методи функціонального, конструктивного-технологічного, ергономічного, образно-стилістичного і художньо-композиційного аналізу. Подібний методологічний

конгломерат дозволив деталізовано розглянути складові елементи укриттів, їх функціональне призначення, конструктивно-технологічні ознаки та естетичне рішення з подальшою розробкою проектних пропозицій.

Висновки. Запропоновано комплексну дизайнерську концепцію вирішення проблем щодо вдосконалення існуючих та планування майбутніх заходів для колективної безпеки. Усі проектні рішення мають дизайнерську основу, досить глибоко опрацьовані та зібрані у єдиний альбом рекомендацій ініціативного концептуального проекту «Безпека». Альбом містить три розділи: особиста безпека, регіональна безпека та державна безпека. У розділі «Особиста безпека» представлені проектні пропозиції щодо розробки дизайну інтер'єрів приміщень та їх предметного оснащення (проект двоярусного та трьох ярусного ліжок; проект сидінь та місце зберігання речей; комплект трансформованих столу та стільця; система зонування; організація гігієни та медична аптечка загального користування; система висвітлення). У розділі «Регіональна безпека» розглядаються питання організації укриттів на основі існуючих приміщень різного формату міської інфраструктури. У розділі «Державна безпека» представлено концептуальну проектну пропозицію щодо облаштування розгалуженої мережі сучасних укриттів по всій країні.

Наукова новизна роботи полягає в спробі комплексно підійти до вирішення організації укриттів на рівнях особистої, регіональної та державної безпеки в сучасних умовах. Практичне значення полягає в рівні опрацювання об'єктів для укриттів, що в цілому можуть бути означені як дослідні зразки і доопрацьовані у співпраці з фахівцями різних галузей (конструкторами та технологами) для запуску у серійне виробництво. Теоретичне значення концептуального ініціативного проекту «Безпека» полягає у спробі структурування факторів забезпечення безпеки в умовах воєнного конфлікту. Такий підхід та отримані проектні матеріали можуть бути використані для розробки методології проведення подібних проектів загалом та у написанні навчальних завдань та методичних рекомендацій для низки навчальних дисциплін спеціальності 022 Дизайн.

Ключові слова: промисловий дизайн і дизайн інтер'єру, дизайн візуальних комунікацій та мультимедійний дизайн, безпека.

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