

АРХИТЕКТУРА

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COMPREHENSIVE APPROACH TO THE FORMATION OF THE ARCHITECTURAL ENVIRONMENT OF REHABILITATION CENTERS

A comprehensive approach to the formation of the architectural environment of rehabilitation centers (RC) for people who were in the war zone, and for those who currently need rehabilitation in terms of sociology, psychology, urban planning, design, etc. From these positions, the complex method reveals the problems of forming the architectural environment of the RC, as one that raises the potential for life and allows people with disabilities to move freely, and to perceive interior and exterior spaces from the standpoint of design, both design and color in the system "nature-man-environment" on the basis of functional and aesthetic connections, and thus provide the comfort of their temporary stay in the center.

***Keywords:* rehabilitation center; servicemen; rehabilitators; architectural environment; social and psychological adaptation.**

Formulation of the problem

Rehabilitation center – a place where people are provided with qualified assistance to restore their condition after the misfortunes they had to go through [1].

There are also many different types of rehabilitation centers, as well as the reasons for visiting them, which can be summarized by the following criteria:

1. Urban planning – the position of the RC in the city structure:
 - in the city center;
 - within the city;
 - out of city.
2. By types of rehabilitation:
 - social rehabilitation is a system of forms, methods and means of recovery by an individual of lost or not acquired in the process of so-

cialization functions, relations and roles of social functioning - the return of man to society;

- professional – rehabilitation for employment opportunities;
- • medical rehabilitation is a set of measures aimed at the maximum possible restoration of the patient's lost abilities after various diseases. Rehabilitation – an active process aimed at achieving full recovery of impaired functions due to illness or injury, or, if this is not possible – the optimal realization of physical, mental and social potential of the disabled, its most adequate integration into society;
- physical culture and health – adapted sports;
- socio-psychological rehabilitation is a system of measures aimed at restoring, correcting or compensating for disorders of mental functions, conditions;
- personal and social-labor status of patients, the disabled, as well as persons who have suffered diseases, who received mental trauma as a result of a sharp change in social relations and living conditions.

3. Seasonality (mode of operation):

- seasonal;
- year-round.

4. In terms of architecture for:

- planning solution;
- centralized;
- pavilions;
- block;
- combined.

5. Architectural and figurative solution:

- design;
- shaping;
- color;
- combined.

6. By profile:

- orthopedic profile;
- rehabilitation of the disabled;
- neurological, orthopedic diseases, congenital genetic pathologies;
- rehabilitation of servicemen;
- rehabilitation of children, etc.

Such great diversity raises many problems in the formation of RC, on the one hand, on the other – requires a comprehensive approach to their solution. Especially recently, both in Ukraine and in Syria, the rehabilitation of servicemen is very important and requires a systematic and comprehensive approach.

The task of the article

To analyze and identify the features of the formation of rehabilitation centers for servicemen in Ukraine and abroad, and to suggest methods of forming the architectural environment of the RC, which would have a positive impact on the rehabilitation of combatants. The idea of creating such centers is to return fighters and civilians to normal social life by opening several basic centers in Ukraine, Syria and other countries through architecture and design, which will introduce the latest technologies in both design and in the construction of the RC.

Presenting main material

During the anti-terrorist operation, in international wars, not only many soldiers suffer many wounds of varying severity, but also the civilian population – especially many children, young people and the elderly.

After a full course of treatment, servicemen and civilians must also undergo a course of rehabilitation to restore their full life and provide an opportunity to return to civilian life. This applies to both psychological and physical rehabilitation.

In Ukraine, as in Syria today, as in many other countries, there are not many modern rehabilitation centers for servicemen and civilians. More often rehabilitation centers are created on the basis of city hospitals that does not correspond to modern interdisciplinary complex approaches and does not give the patient full recovery after injuries. "Events in eastern Ukraine have demonstrated the complete collapse of the domestic rehabilitation system. This system is now being gradually restructured. the philosophy of providing rehabilitation assistance, laws and bylaws regulating the system are radically revised" [2].

Analysis of recent research and publications

In studies that raise the topics of rehabilitation centers, the following problems can be identified: the complexity of developing a model of functional and spatial organization of the rehabilitation center, taking into account all factors; formation of the architectural environment of the rehabilitation center for servicemen on the basis of sustainable devel-

opment; combining architecture and the natural environment to improve the condition of rehabilitators.

Among the authors of scientific works should be noted Mironenko VP, who offers ergo-design techniques for the formation of subject-spatial environment that meet the requirements of the disabled; Rodyka J. S., who reveals the ergonomic features of the formation of the architectural environment for people with disabilities; Kornilova L. V. [3; 4; 5; 6].

But the current experience of designing rehabilitation facilities for servicemen is very small and is presented in separate articles and scientific papers [8–10]. A wide range of works exists today in the format of barrier-free architecture. The made material exists in normals and technical equipment. But few architects-scientists raise the topic of the formation of such spaces, which at the level of psychological perception of man – "consumer" – is experiencing the rise and insurmountable power of the meaning of life, the desire for creative realization of their individual.

Rehabilitation center is an organization that deals with physical, psychological, social and moral and spiritual recovery of rehabilitated people who have suffered a disability of the nervous system of the musculoskeletal system of the senses and also have mental and behavioral disorders. Most people who have been in the area of an anti-terrorist operation, namely those who have fought in the war, develop a post-traumatic syndrome, which is a time bomb, which can appear in six months or even ten years. It can strike across the nation because most men between the ages of 18 and 45 are at war. The wave of crime may increase in the country. In a war-torn society, not everyone will be able to realize themselves in peaceful pursuits.

Analysis of foreign and domestic regulations showed that some urban and architectural standards for the design of facilities that take into account the requirements of people with disabilities, first appeared in the 60s of XX century in North America and Western Europe, and in the late 80's – early 90's – in Eastern Europe, including the former Soviet Union and Ukraine. In the world as a whole, and in Ukraine separately, a large number of rehabilitation centers of various profiles are being built on the basis of already existing medical complexes built during the Soviet era. Thus their profile direction can occur on social strata of the population: military men, invalids drug addicts, victims of crimes, children, orphans, etc. In this case, the general functional connections of the

three-dimensional composition and the structure of objects remain unchanged.

Unfortunately, in Ukraine, the rules are often ignored when creating rehabilitation centers. The main problem is the limited number of rooms that are needed, or their absence, or in one room there are several functional processes that require insulation, as well as insufficient space and inconvenient configuration of rooms that were not intended for people with impaired musculoskeletal system.

One of the principles of organizing functional space is the grouping of zones such as a residential area, which is grouped into a residential block. Rehabilitation zone, which in turn is divided into two blocks – the block of medical rehabilitation and the block of psychological rehabilitation. Most often, the block of psychological rehabilitation includes an open space – the atrium, which combines several functions, performs a communication function that redistributes flows. The compositional center is the exit to the green roof. This has a positive effect on the rehabilitators themselves. After all, comprehensive harmonization of the architectural and natural environment is the key to success.

Ensuring the most comfortable movement on the territory and in the middle of the building is another principle of forming the architectural environment of the rehabilitation center [4]. This means anticipating the optimal solution for the availability of paths between buildings, inside between the most frequently used blocks, and proposing the shortest routes. Also to get rid of any obstacles on the way, to provide at the project stage doorways without thresholds, to make the most equal coverage for people in wheelchairs, to provide access to the first floor, to design ramps according to the number and height of stairs.

The most popular areas should be located on the ground floor, the building should be equipped with elevators in accordance with the norms for low mobility groups. It is important to properly provide living space for soldiers with musculoskeletal problems. The furniture in the room should be located as compactly as possible and with a special design solution, because such furniture should not have sharp corners. Indoor and outdoor furniture units should be equipped with special support handrails, especially in bathrooms [3].

It can be generalized that the needs of people undergoing rehabilitation should include the following measures: increasing the size of the corridors of passages between the furniture, increasing the width of the

doorway, the use of sliding doors, ensuring the bilateral location of handrails at a certain height.

For psychological rehabilitation, it is important to provide a colorful interior design that would visually create comfort.

The generalization of domestic and foreign experience in designing such facilities has shown that in Ukraine most rehabilitation centers operate on the basis of conventional hospitals. For example, the main military clinical hospital of the Ministry of Defense of Ukraine in Kyiv (Fig. 1–3) [6–8]. It is a large military medical institution capable of providing all kinds of specialized medical care. But the adaptation of new requirements to the old architectural and planning decisions does not solve these problems. This is one of the oldest medical institutions in Ukraine. Its history dates back more than two hundred years to 1755, when it was built at the request of the governor of Kiev. It consists of a group of functionally separated architectural blocks of various shapes, including circular, arched and symmetrical, providing excellent coordination of the master plan, mixed with beautiful green gardens, which create the necessary psychological atmosphere for recreation, which is very important for psychological rehabilitation of soldiers. an example of a combination of architecture and nature. The entrance to the center is through a huge main gate, which gives the center luxury and grandeur, and its design is based on a classic system of buildings and shows its facades, especially in the main part of the building, where yellow stone was used with a little white to show facade details.

Today, the hospital includes 18 medical and diagnostic clinics, a modern laboratory center, a center for diagnosis and radiation therapy (ultrasound, magnetic resonance and computed tomography), a functional diagnostic department and a narcology center.

At the service of patients are 4 specialized departments of resuscitation and intensive care: surgical, neurosurgical, cardiac and for infectious patients [6].

The hospital has a capacity of 1,125 beds and treats more than 25,000 patients each year. (Fig. 1–3) [7–9].



Fig. 1. Plan scheme of the main military clinical hospital [7]

A rehabilitation center has also been built in the United States **National Center of Excellence (NICoE)**, with an area of 72,000 m² and a value of \$ 65 million, which has a profile of treating the injuries of servicemen who became "the signatures of the war in Afghanistan and Iraq".

With a mission of Hope, Healing, Discovery, and Learning, NICoE includes TBI treatment and research programs that are not available anywhere in the world.



Fig. 2. National Military Medical Clinical Center "GVKG" [8]



Fig. 3. National Military Medical Clinical Center "GVKG" [9]

The building is located opposite the main hospital in the north, next to the barracks building in the east, the Naval Exchange and the parking lot in the south and the elegant manicured lawn in the west.

The goal of NICoE is to be the most modern center of the world's psychological health and modern treatment of brain injuries, research and education. (Fig. 4) [10].





Fig. 4. National Center of Excellence (NICoE) [10]

Its public spaces are large and easy to perceive and suitable for the movement of patients with disabilities. The color design is also programmed for a rehabilitation effect: the use of paint in calm colors and its psychologically comfortable gradations. The presence of large window openings is taken into account, which allow natural light to enter and integrate with nature outside the room, to reduce the anxiety of the disabled patient and give him optimism and psychological peace.

The layout of the building is fixed in an L-shaped logical shape (similar to the logical left side of the brain), designed to accommodate many diagnostic, medical and ancillary facilities.

A glass curtain, reflected by a wood-covered wall, runs along the main lobby and covers training and therapy rooms, as well as public areas. Unlike the left side of the brain, this form of amoeba has become analogous to the right side (creative side) of the brain.

In this wavy form, free-form spaces are created, which are designed to evoke feelings of hope and confidence, and which are limited by wavy walls, which enhances integration with the natural beginning. (Fig. 5) [11].



Fig. 5. National Center of Excellence (NICoE), Concept [11]

The center includes the most advanced technologies available for medical care, such as computed tomography. Powerful imaging technologies, including Tesla MRI 3, help to more accurately diagnose complex brain injuries; 64-slice PET / CT scanner; MEG Elekta Neuromag (magnet encephalography) is one of nine used in the United States and functional transcranial Doppler (fTCDS).

The center has created a virtual reality design – CAREN – Computer Rehabilitation Environment Modeling Center.

The complex has a Central Park with a Labyrinth where servicemen who have arrived at the Center of Excellence (NICoE) may be surprised to learn that an intensive outpatient treatment program includes mandatory passage through the Labyrinth – a technique by Alison Winters, NICoE coordinator, who claims that "contemplative walking in a nutshell" was free and relaxed. The maze provides a structural path and rehabilitators do not have to think about where to go and how to get somewhere. The patient does not need to make any decisions. He needs the mind to stay relaxed, it's like meditating while walking.

Also, CR has telemedicine, which is education for patients with disabilities. This is a form of training and therapy using computer equipment and remote equipment, which provides interaction between doctors and patients at different stages of treatment, rehabilitation, rehabilitation and independent work with the materials of the information network (Fig. 6) [12].

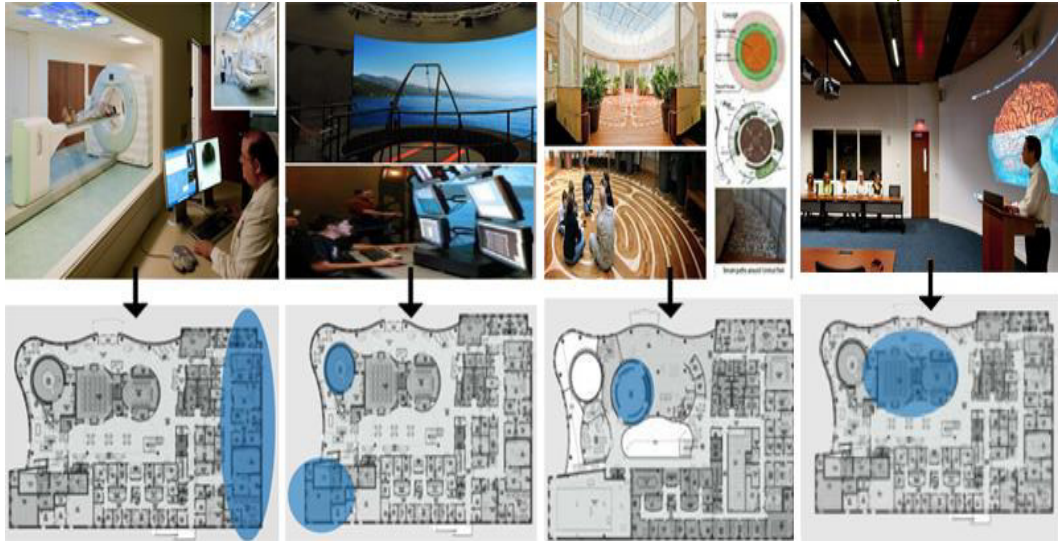


Fig. 6. National Center of Excellence (NICoE), Plans [12]

The National Center of Excellence (NICoE) is a combination of complexity and simplicity with attention to physical, practical and social details. Transparency, continuity, layering, diversity, the play of light and shadow, as well as the experience of nature – these are all ingredients of this stimulating environment.

Based on this analysis, the author's master's thesis on the topic: "Principles of formation of the architectural composition of the clinical rehabilitation center in Latakia, Syria" is offered. The design area has the shape of a triangle. From the West across the street there is a recreational area with a beach and landscaping system. The main entrance to the center is designed from the sea and is perceived as a space that draws to the entrance group. It is a green boulevard, which is connected to the recreational system of the sea and the main entrance to the center. This compositional approach creates peace in rehabilitators and a pleasant perception of the architectural space.

On the south-eastern side of the territory from the street. The center of Côte d'Ivoire is considered to be a streamlined object, because the whole center is S-shaped. This free form gently "translates" and "leads" the view of the receptive to the main functional areas: the treatment area for adults and the treatment area for adolescents who have classrooms and a pool in the shape of a cylinder, as well as a children's treatment area with pool and games with northeast side, too, in the form of a hinge cylinder.

The whole center has walls with a stained glass system along the corridors – the main communications that connect all areas, and through which you can see the sea and the city of Latakia. This implements the principle of architectural composition – the connection "external-internal", when external spaces are visually combined with internal and enhance the integration of natural and anthropogenic. This technique gives psychological relief and forms an idea of the environment in the system "nature-man-environment" [13–15].

Also, a maze has been designed on the territory, as well as in the Center of Excellence (NICoE), which provides a structural path for rehabilitators, does not allow to think where to go and how to get somewhere. The patient does not make a decision, his mind remains not tense and the course implements a method of meditation that promotes healing.

This combination of complexity and simplicity with attention to physical, practical and social details, creates transparency, continuity, diversity, the play of light and shadow, and the play of space, as well as the laws of nature – these are all components of a stimulating environment.

The main elements of the rehabilitation center are the objects that are part of the rehabilitation center and are related to treatment and rehabilitation. This is a medical unit, which includes departments of primary diagnostics, psychoneurology, neurosensory, pool complex, which includes swimming pools with fresh and sea water, mud therapy, paraffin therapy), hippotherapy (horse yard). The rehabilitation unit includes a correctional and methodological unit, a unit of social adaptation (pre-school, household, professional socialization).

The elements of the building were sorted by age groups: there is a section for children, which corresponds to the pink color in the plan, a section for middle-aged, which corresponds to the yellow color in the floor plan, and a section for the elderly, which corresponds to the blue color. Each building has its own landscape areas, but they are all interconnected.

The scientific unit includes a congress hall for international conferences, laboratories, a research center for brain research, and a health retraining department. Stairwells are connected to all floors of the building by corridors-communications and halls at intersections, and the inner atrium connects these spaces and allows natural light to penetrate into the middle. Full glazing along the central space, which

connects the various internal elements of the building, provides an almost continuous connection between the internal and external space (Fig. 7–11).

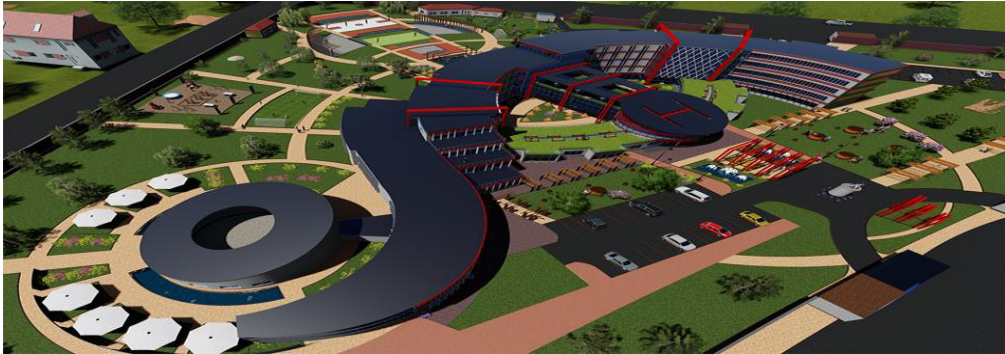


Fig. 7. Master's project "Principles of formation of the architectural composition of the clinical rehabilitation center in Latakia, Syria". Author Mhaikl H. (supervisor Assoc. Prof., Candidate of Architecture Kryvoruchko N. I.) is a rehabilitation center for patients with special needs. Perspective from a "bird's eye" flight

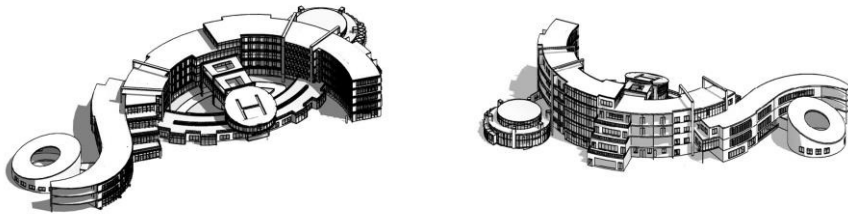


Fig. 8. Master's project "Principles of formation of the architectural composition of the clinical rehabilitation center in Latakia, Syria". Author Mhaikl H. (supervisor Assoc. Prof., Candidate of Architecture Kryvoruchko N. I.) is a rehabilitation center for patients with special needs. Model

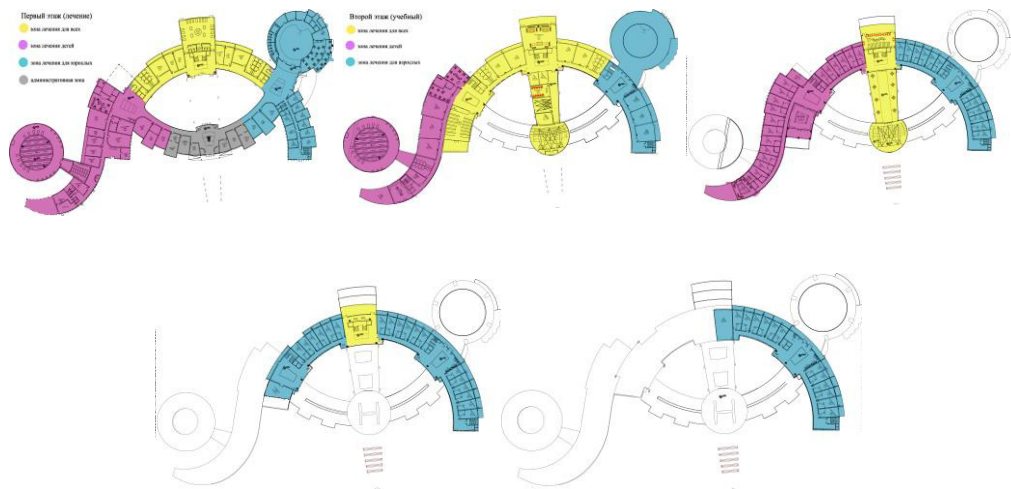


Fig. 9. Master's project "Principles of formation of the architectural composition of the clinical rehabilitation center in Latakia, Syria". Author Mhaikl H. (supervisor Assoc. Prof., Candidate of Architecture Kryvoruchko N. I.) is a rehabilitation center for patients with special needs. Plans

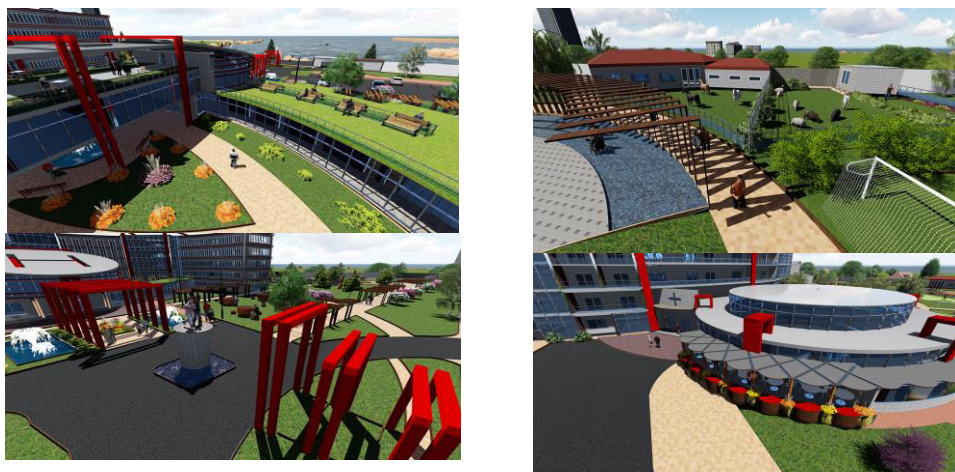


Fig. 10. Master's project "Principles of formation of the architectural composition of the clinical rehabilitation center in Latakia, Syria". Author Mhaikl H. (supervisor Assoc. Prof., Candidate of Architecture Kryvoruchko N. I.) is a rehabilitation center for patients with special needs. Visualization



Fig. 11. Master's project "Principles of formation of the architectural composition of the clinical rehabilitation center in Latakia, Syria". Author Mhaikl H. (supervisor Assoc. Prof., Candidate of Architecture Kryvoruchko N. I.) is a rehabilitation center for patients with special needs. General plan. Functional 3D circuits

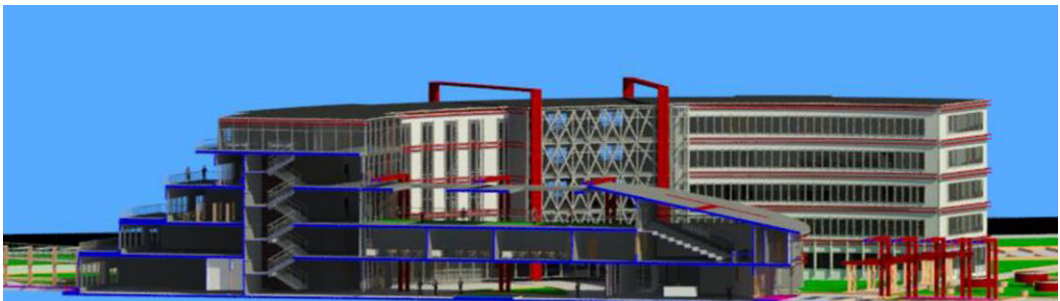


Fig. 12. Master's project "Principles of formation of the architectural composition of the clinical rehabilitation center in Latakia, Syria". Author Mhaikl H. (supervisor Assoc. Prof., Candidate of Architecture Kryvoruchko N. I.) is a rehabilitation center for patients with special needs. Section

Conclusions

Analysis of practical and theoretical experience showed the relevance of this topic. It can be stated that:

- formation of the architectural environment of rehabilitation spaces is a topical, multifaceted and priority research topic that requires a comprehensive approach;
- the organization of functional space is based on the principle of grouping zones: medical rehabilitation and psychological rehabilitation unit;
- the block of psychological rehabilitation can include open space –

- the atrium, which combines several functions, performs a communication function that redistributes flows;
- the compositional center is both the atrium and the exit to the green roof, which has a positive effect on the rehabilitators themselves – a comprehensive harmonization of the architectural and natural environment;
 - design of rehabilitation spaces "plays" with different textures, using different materials, "plays" with space, generating a figurative and semantic series of its perception, which inspires creativity, vitality, hope;
 - going beyond traditional ideas, methodologically reveals the architectural techniques and the relationship between man and the world in the system "nature-man-environment";
 - features of the formation of rehabilitation centers for servicemen are the creation of architectural and planning means of a separate center in which there are three stages of rehabilitation hospital, sanatorium and clinic;
 - at the hospital stage, rehabilitation is not carried out autonomously, but in close connection with the treatment process, complementing and increasing its effectiveness;
 - at the sanatorium stage rehabilitation of persons who after purchase of the patient are sent to sanatorium on any of intervals of inpatient treatment and final which is carried out after completion of hospital treatment is carried out;
 - at the outpatient and outpatient stage, dispensary observation is carried out, measures are taken to maintain the ability to work to prevent secondary and late complications, and the victims are gradually included in professional activities. This stage, as a rule, completes rehabilitation.

The account of technologies and stages of rehabilitation gives the chance by architectural and design receptions to form RC which corresponds to modern complex and system approaches of restoration, correction or compensation of disturbances of mental functions, states, personal and social and labor status of patients, invalids, and also persons who have transferred diseases. who received mental trauma as a result of a sharp change in social relations and living conditions.

1. Шилин В. В. Архитектура и психология : краткий конспект лекций. Н. Новгород : Нижегород. гос. архит.-строит. ун-т, 2011. 66 с. **2.** URL:

<https://nv.ua/ukr/ukraine/events/moz-stvorit-interaktivnu-kartu-z-perelikom-vsih-dijuchih-reabilitatsijnih-tsentriv-v-ukrajini-1137490.html> (дата звернення: 10.04.2021). **3.** Мироненко В. П., Родик Я. С. Эрго-дизайнерские приемы формирования предметно-пространственной среды, отвечающей требованиям инвалидов. *Вісник Харківської державної академії дизайну та мистецтва* : зб. ст. Харків : ХДАДМ, 2004. № 2. С. 82–87. **4.** Родик Я. С. Эрго-номические особенности формирования архитектурной среды для людей с ограниченными физическими возможностями. *Перспективні напрямки проектування житлових та громадських будівель* : зб ст. спец-випуск. *Фізкультурно-спортивні споруди, адаптовані для потреб інвалідів*. Київ, 2005. С. 13–18. **5.** Війна – це тільки початок, або як допомогти тим, хто нас захищав. URL: <http://racurs.ua/ua/809-viyna-se-tilky-pochatok-abo-yak-dopomogty-tym-hto-nas-boronyv> (дата звернення: 10.04.2021). **6.** URL: https://ru.wikipedia.org/wiki/Главный_военный_клинический_госпиталь_Министерства_обороны_Украины (дата звернення: 10.04.2021). **7.** URL: https://www.pslava.info/Kyiv_KyivskaFort_2009-04-02-294,154713.html (дата звернення: 10.04.2021). **8.** URL: smartclever.com.ua/ru/articles/Киевская%20крепость (дата звернення: 10.04.2021). **9.** Сайт ГВМКЦ «ГВКГ» **10.** URL: [https://www.intrepidmuseum.org/LatestNews/June-2010/National-Intrepid-Center-of-Excellence-\(NICoE\)-to-](https://www.intrepidmuseum.org/LatestNews/June-2010/National-Intrepid-Center-of-Excellence-(NICoE)-to-) (дата звернення: 10.04.2021). **11.** URL: <http://www.bdcnetwork.com/sites/bdc/files/presentation-National-Intrepid-Center-of-Excellence.pdf> (дата звернення: 10.04.2021). **12.** URL: <https://www.smithgroup.com/projects/national-intrepid-center-of-excellence-nicoe> (дата звернення: 10.04.2021). **13.** Криворучко Н. І., Мхаїкл Х. Архітектурне формування реабілітаційних просторів. *Сучасні проблеми архітектури та містобудування* : наук.-техн. зб. / відпов. ред. М. М. Дьомін. К., КНУБА, 2018. Вип. 51. 528 с. С. 260–276. URL: <http://library.knuba.edu.ua/books/zbirniki/01/2018/201851.pdf> (дата звернення: 10.04.2021). **14.** Kryvoruchko N. I., Krivitskaya A. S. Regeneration of urbanized environment: city ecology as a basis of sustainable development. *World science : multidisciplinary scientific edition*. Warsaw : RS Global Sp. z O.O. April 2018. № 4(32) Vol. 1. P. 29–34. ISSN 2413-1032. **15.** Natalya Kryvoruchko, Hala Mhaikl. Problems of architectural formation of military clinic rehabilitation centers. *Projektowanie militarnych centrów rehabilitacyjnych. Table of contents | spis treści ' 35_2018 /e-ISSN 2391-7725 | ISSN 1895-3247* © 2018 by the authors URL: http://www.pif.zut.edu.pl/images/pdf/pif-35/0-01_PiF35_TableOfContects_SpisTresci.pdf (дата звернення: 10.04.2021).

REFERENCES:

1. Shilin V. V. *Arhitektura i psihologiya : kratkiy konspekt lektsiy*. N. Novgorod : Nijegorod. gos. arhit.-stroit. un.t, 2011. 66 s. **2.** URL:

<https://nv.ua/ukr/ukraine/events/moz-stvorit-interaktivnu-kartu-z-perelikom-vsikh-dijuchih-reabilitatsijnih-tsentriv-v-ukrajini-1137490.html> (data zvernennia: 10.04.2021). **3.** Mironenko V. P., Rodik YA. S. Ergo-dizaynerskie priemy formirovaniya predmetno-prostranstvennoy sredy, otvchayushey trebovaniyam invalidov. *Visnyk kharkivskoi derzhavnoi akademii dyzainu ta mystetstva* : zb. st. Kharkiv : KhDADM, 2004. № 2. S. 82–87. **4.** Rodik YA. S. Ergonomicheskie osobennosti formirovaniya arhitekturnoy sredy dlya lyudey s ogranicennyimi fizicheskimi vozmojnostyami. *Perspektyvni napriamky proektuvannia zhytlovykh ta hromadskykh budivel* : zb st. spets-vypusk. *Fizkulturno-sportyvni sporudy, adaptovani dlia potreb invalidiv*. Kyiv, 2005. S. 13–18. **5.** Viina – tse tilky pochatok, abo yak dopomohty tym, khto nas zakhshchav. URL: <http://racurs.ua/ua/809-viina-ce-tilky-pochatok-abo-yak-dopomogty-tym-hto-nas-boronyv> (data zvernennia: 10.04.2021). **6.** URL: https://ru.wikipedia.org/wiki/Главный_военный_кlynnycheskyi_hospital_Mynyst_erstva_oborony_Ukrayny (data zvernennia: 10.04.2021). **7.** URL: https://www.pslava.info/Kyiv_KyjivskaFort_2009-04-02-294,154713.html (data zvernennia: 10.04.2021). **8.** URL: smartclever.com.ua/ru/articles/Kyevskaia%20krepost (data zvernennia: 10.04.2021). **9.** Sait HVMKTs «HVKH» **10.** URL: [https://www.intrepidmuseum.org/LatestNews/June-2010/National-Intrepid-Center-of-Excellence-\(NICoE\)-to-](https://www.intrepidmuseum.org/LatestNews/June-2010/National-Intrepid-Center-of-Excellence-(NICoE)-to-) (data zvernennia: 10.04.2021). **11.** URL: <http://www.bdcnetwork.com/sites/bdc/files/presentation-National-Intrepid-Center-of-Excellence.pdf> (data zvernennia: 10.04.2021). **12.** URL: <https://www.smithgroup.com/projects/national-intrepid-center-of-excellence-nicoe> (data zvernennia: 10.04.2021). **13.** Kryvoruchko N. I., Mkhaikl Kh. Arkhitekturne formuvannia reabilitatsiinykh prostoriv. Suchasni problemy arkhitektury ta mistobuduvannia : nauk.-tekhn. zb. / vidpov. red. M. M. Domin. K., KNUBA, 2018. Vyp. 51. 528 s. S. 260–276. URL: <http://library.knuba.edu.ua/books/zbirniki/01/2018/201851.pdf> (data zvernennia: 10.04.2021). **14.** Kryvoruchko N. I., Krivitskaya A. S. Regeneration of urbanized environment: city ecology as a basis of sustainable development. *World science* : multidisciplinary scientific edition. Warsaw : RS Global Sp. z O.O. April 2018. № 4(32) Vol. 1. P. 29–34. ISSN 2413-1032. **15.** Natalya Kryvoruchko, Hala Mhaikl. Problems of architectural formation of military clinic rehabilitation centers. *Projektowanie militarnych centrów rehabilitacyjnych. Table of contents | spis treści ' 35_2018 /e-ISSN 2391-7725 | ISSN 1895-3247* © 2018 by the authors URL: http://www.pif.zut.edu.pl/images/pdf/pif-35/0-01_PiF35_TableOfContects_SpisTresci.pdf (data zvernennia: 10.04.2021).

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МЕТОДИКА АРХІТЕКТУРНОГО ПРОЄКТУВАННЯ РЕАБІЛІТАЦІЙНОГО ЦЕНТРУ ДЛЯ ВІЙСЬКОВОСЛУЖБОВЦІВ

Розглянуто комплексний підхід до формування архітектурного середовища реабілітаційних центрів (РЦ) як для людей, які перебували в зоні війни, так і для тих, хто сьогодні потребує реабілітації з точки зору соціології, психології, містобудування, дизайну тощо. З цих позицій комплексний метод розкриває проблеми формування архітектурного середовища РК як такого, що підвищує потенцію до життя і дає можливість вільно пересуватися людям з обмеженими можливостями, а також сприймати інтер'єрні та екстер'єрні простори з позицій дизайну як формоутворення, так і кольору в системі «природа–людина–середовище» на основі функціонально-естетичних зв'язків, і тим самим забезпечувати комфорт їх тимчасового перебування в центрі.

Ключові слова: реабілітаційний центр; військовослужбовці; реабілітанти; архітектурне середовище; соціально-психологічна адаптація.

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МЕТОДИКА АРХИТЕКТУРНОГО ПРОЕКТИРОВАНИЯ РЕАБИЛИТАЦИОННЫЙ ЦЕНТР ДЛЯ ВОЕННОСЛУЖАЩИХ

Рассмотрен комплексный подход к формированию архитектурной среды реабилитационных центров (РЦ) как для людей, которые находились в зоне войны, так и для тех, кто сегодня нуждается в реабилитации с точки зрения социологии, психологии, градостроительства, дизайна и тому подобное. С этих позиций комплексный метод раскрывает проблемы формирования архитектурной среды РК как такой, что поднимает потенцию к жизни и дает возможность свободно передвигаться людям с ограниченными возможностями, и воспринимать интерьерные и экстерьерные пространства с позиций дизайнера как формообразования, так и цвета в

системе «природа-человек-среда» на основе функционально-эстетических связей, и тем самым обеспечивать комфорт их временного пребывания в центре.

Ключевые слова: реабилитационный центр; военнослужащие; реабилитанты; архитектурная среда; социально-психологическая адаптация.
