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PRINCIPLES OF FORMATION OF THE SUBJECT-SPATIAL ENVIRONMENT FOR PRISONERS

<u>Abstract</u>: The article highlights the problems of formation and development of modern design of the internal environment of penal institutions, in particular the Interior housing for prisoners. Based on the study of theoretical sources and experience design established the main principles of forming of interiors and subject-spatial environments correctional complexes: security, functionality, aesthetics and interconnectivity.

<u>Keywords</u>: internal environment of penal systems, interior living spaces for inmates, premises for detention of prisoners, subject-spatial environment.

Problem statement. Design problems of penitentiary institutions and their external and internal architectural environment quite badly there as worldwide and in Ukraine. In recent years in Europe was built several penal institutions, in an environment where you can trace the implementation of principles of a more humane attitude toward the people, the will which is limited and held in isolation from society in accordance with the level of penalties. Leaders in the field of design, construction and operation of modern correctional complexes stand, basically, the edges of the districts of southern Europe - Netherlands, Denmark, United Kingdom, Ireland, where the crime rate is small compared to Eastern Europe. In similar institutions implemented the conditions of prisoners and work with them to meet the international standards of human rights and not to demean the human dignity of a prisoner [1]. Development of sciencebased guidelines for forming Interior and subject-spatial environment of buildings of the prison complexes and, in particular, the premises

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will be able to harmonize the national regulatory framework design in this area, which today does not correspond to the European level.

Analysis of the recent researches. Analysis of research in the field of Interior and subject-spatial environments correctional and prison buildings indicates the practical absence of theoretical work and lack of project experience, although the aforementioned European projects include, certainly, the development of interiors, furniture and equipment. The problem is the fact that projects executed by State building codes respective countries-developers, both in the field of architecture and urban planning, and in the field of corrections, which differ from the legislation of Ukraine. Interior design and product design, perhaps the smallest displays this difference, so this experience should be used in architectural and design development of native correctional institutions.

As a theoretical underpinning can serve general regularities of formation of the interiors of buildings of different purposes, which are formulated in the works Shimko V. T., Shpara V. E., Rannev V. R., Cherniavskii V. G., Oleinik O. P., Gnatiuk L. R. etc.

Article purposes. The purpose of the article is the establishment of principles of formation of internal environment of residential buildings of penal institutions.

The main part. The use of the achievements in the field of architecture, ergonomics and ergonomic design on the way of improving the environment of prison complexes almost never dealt with international practice in the design and operation of correctional institutions, despite the presence in their composition and functions of the public service, manufacturing and education, recreation and spiritual life. A study of the features of the design and improvement of architectural environment from the methodological principles of ergonomics allows conclusion that the formation of a variety of function spaces of Penal complexes is carried out using a universal ergonomic principles taking into account the specific features inherent in this environment [2].

In this connection, harmonization of interiors and subjectspatial environment of prison complexes of all types, taking into account ergonomic properties of functioning should be carried out in the following areas: improvement of special, engineering and domestic equipment to ensure the control of life, as well as the comfort of residential, public, industrial and domestic premises; strengthening the Adaptive properties of prison environment and its parts, including housing for prisoners, working facilities for staff, facilities, production, etc. Embodiment in the design process of the aforementioned requirements using the appropriate color-textured solutions, lighting, noise protection, proper selection of furniture and equipment ensures the creation of a full-fledged in physically and psychologically the internal environment of prison complexes without aggressive and homogeneous Visual effects [3].

Based on the fact that the primary functional-planning and spatial element (cell) of prison complex of any security level is the living room or prison cell, you may want to consider planning and valuation of residential properties at the level of subject-spatial environment. Living room or the cell is a specific environment of man in isolation, so should provide execution of operational and correctional functions in combination with comfortable conditions for sleep, rest, making food, spiritual life and so on [4].

Analysis of modern international practice designing penal institutions discovered the Division of premises for detention of prisoners into two main groups: the cell for 1-2 persons with sanitary knot in each; living rooms for 3-6 persons with toilets and shower, placed on the floor. The first group of the premises is used mainly in penitentiary institutions of the maximum level of security for maintenance for life prisoners and violators of the regime, for temporary detention of prisoners. Availability of the second group refers to the medium and minimum security, in which the convicted have a free mode hold [5].

It should be noted that one of the components to create the necessary comfort for international norms in this field becomes the presence of toilet in each room and it is desirable to one person. Research experience designing correctional and prisons revealed different variants of placing health zones, namely between the rooms and the outside wall or between two neighboring residential premises. In order to avoid the formation of gateway between the bathroom and the internal corridor, it is advisable to take options for

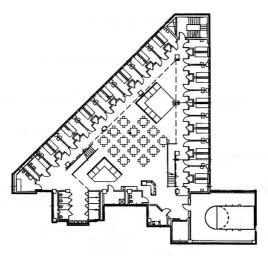


Fig.1. Architectural and planning organization of the triangular section to hold prisoners in maximum-security levels

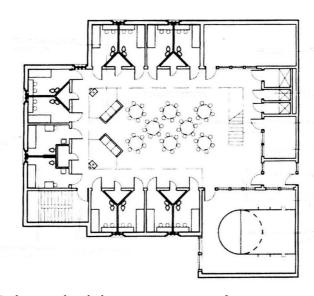


Fig.2. Architectural and planning organization of square section to hold prisoners in maximum-security levels

planning, which toilets are placed or between rooms, or near the outer walls so that rooms were opened in the overall interior space (Fig.1,2).

Based on the study of world experience designing of penal institutions found that the design of the cell for 1-2 inmates or convicts in institutions maximum security level or in prisons different countries have in common, namely: functional and planning decision is performed in accordance with the operational and technological requirements and takes into account the security measures. Three-dimensional organization is very concise, it is on the verge of permissible parameters; through a compositional means reproduced the atmosphere of simplicity, rigor, which in some cases is mitigated by using color-textured and resembles a home (Fig.3) [7].

A special place among the latest design developments occupy the modular design of the dwelling points that can block the way to form a residential section and branch prison complexes of buildings and structures (Fig.4) [8]. Such design solutions are in demand in times of economic crisis, when the State is unable to fully provide similar institutions and which, in turn, cannot themselves hold, so build the penitentiary complex "forever" doesn't make sense. The complex of buildings and structures on the basis of modular fast mounted designs from monolithic concrete, metal or wooden frame is made out of a construction site, can understand and be transported to another place.

Therefore, it can be argued that the experience of the world of design of cells on one of the two prisoners is common features and implemented in practice of architectural design of penal institutions of the new generation, creating a balanced environment that meets international standards.

The second direction of formation of housing in penal establishments, which are less common in Western Europe, is the formation of residential rooms for 3-6 prisoners with common toilets are on the floor of the building. This way, the maintenance of prisoners is typical for penitentiary institutions and a minimum level of security in Eastern Europe, America and the last of the Soviet Union. The cause of the increase in the volume of residential rooms

to hold prisoners in these countries due to the high level of crime, and as a result, formation of penal institutions and detention facility with lots of places. For example, in the large prison of Norway held 350 persons, in detention facility Lukyanovsky from Kiev – 2500 persons, in most federal prisons United States capacity ranges from 1500 to 2500 prisoners [6].

Considering what a large number of prisoners in Ukraine, which is about 73 thousand people, and the fact that the existing Correctional Facility are in poor physical condition, is considered to be appropriate in the design of new and reconstruction of old institutions prefer the formation of residential blocks to hold the initial team of prisoners in living rooms for 4-6 persons, workers, licensing and ancillary facilities in each unit (Fig.5).









Fig.3. Examples of the design of interior decoration of cells for prisoners

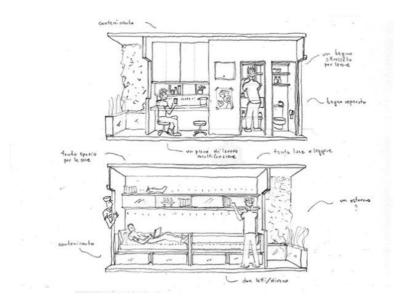






Fig.4. Design of the room-the module for two persons to correctional maximum level of security in the city of Spoleto

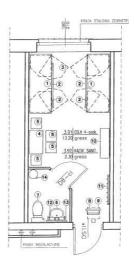


Fig.5. Planning a living room for 4 persons in the prison on 497 convicted (Republic of Poland)



Fig. 6. The design of the furniture and equipment for prisons

A special role in the process of formation of high-grade interior environment housing in penal institutions lays plays content, special furniture and equipment. Latest developments in this narrow field is design furniture for correctional centers that created an English student Kai Lin, and design of mobile mini space for psychological therapy for prisoners, which was established by an Englishman Karl Lenton (Fig. 6) [9, 10].

Conclusions. Consequently, the analysis of the features of formation of the internal environment of the buildings progressive penal institutions, which was held in order to use this experience in the practice of designing Ukraine, gives an opportunity to formulate relevant laws, where you will find the embodiment of democratic and tolerant attitude to the convicted and the correctional system, national and historical traditions and the functional purpose of complexes. The following principles of improving internal environment of prison complexes are the principle of Security; the principle of functionality; the principle of aesthetics and the principle of interconnectivity.

The principle of security, takes into account the security requirements and the degree of "isolation" environment for persons whose will is limited. He is seen in the introduction of modern technical and planning security measures in the areas of penal institutions. The principle of functionality provides an individual approach to socio-educational process the correction of prisoners and the distribution of functions and spaces in the environment of prison complexes. The principle of aesthetics proclaims the formation of the full emotional and socio-psychological environment for prisoners and staff using the composition of image techniques. The principle of interconnectivity highlights the communication and the subordination of the technological, operational, planning and technology components of the architectural environment of the penitentiary institutions, as well as determines the degree of openness of the Interior in the surroundings.

Research perspectives. These principles can become a reliable basis for further research, techniques and methods of formation, development and improvement of the internal environment of the buildings of the prison complexes of various types.

References

1. Степанюк А. Х., Яковець І. С. Втілення міжнародних стандартів у практику діяльності кримінально-виконавчої системи України: Монографія. Харків: Кроссрод, 2007. 184 с.

2. Свірко В. О., Бойчук О. В., Голобородько В. М., Рубцов А. Л. Основи ергодизайну: навчальний посіб. К.: НАУ, 2011.

300 c.

- 3. Иконников А. В., Пилипенко В. Р., Каган М. С и др. Эстетические ценности предметно-пространственной среды [Под общ. ред. д-ра архит. В. Иконникова] : ВНИИ технической эстетики. М.: Стройиздат, 1990. 335 с.
- 4. Третяк Ю. В. Типологічні основи формування архітектурного середовища пенітенціарних комплексів. Автореф. дис... д-ра архіт.: 18.00.02; Київ. нац. техн. ун-т буд-ва і архіт. К., 2015. 36 с.

5. Architecture of Incarceration [Édited by Iona Spens]. London:

Academy editions, 1994. 128 p.

6. Офіційний веб-сайт: Державна пенітенціарна служба України

[Електронний ресурс]. URL: http://www.kvs.gov.ua

- 7. Kofman J. In Norway, a prison built on second chances [Elektronnij resurs]. URL: http://www.npr.org/sections/parallels/2015/05/31/410532066 (дата звернення: 28.11.2016)
- 8. Campbell-Dollaghans K. A. Prison Cell-Sized Room Designed by the Inmates Who Live in Them [Elektronnij resurs]. URL: http://gizmodo.com/5995111/a-prison-cell-designed-by-the-inmates-who-live-in-them (дата звернення: 28.11.2016)

9. Kai Lin. Redesign Institutional Furniture [Elektronnij resurs].

URL: http://www.kailindesign.com (дата звернення: 28.11.2016)

10. Tuker E. Karl Lenton designs egg-shaped movable therapy pods for prisons [Elektronnij resurs]. URL: https://www.dezeen.com/2015/09/29/karl-lenton-safe-innovations-seeds-movable-therapy-pods-prisons-uk-leeds/ (дата звернення: 28.11.2016)

Transliteration

1. Stepanyuk A. Kh., Yakovets' I. S. Vtilennya mizhnarodnykh standartiv u praktyku diyal'nosti kryminal'no-vykonavchoyi systemy Ukrayiny: Monohrafiya. Kharkiv: "Krossrod", 2007. 184 s.

2. Svirko V. O., Boychuk O. V., Holoborod'ko V. M., Rubtsov A. L.

Osnovy erhodyzaynu: navchal'nyy posib. K.: NAU, 2011. 300s.

3. Ykonnykov A. V., Pylypenko V. R., Kahan M. S. y dr. Estetycheskye tsennosty predmetno-prostranstvennoy sredy [Pod obshch. red. d-ra arkhyt. V. Ykonnykova]: VNYY tekhnycheskoy əstetyky. M.: Stroyyzdat, 1990. 335 s.

4. *Tretyak Yu.V.* Typolohichni osnovy formuvannya arkhitekturnoho seredovyshcha penitentsiarnykh kompleksiv. Avtoref. dys... d-ra arkhit.:

18.00.02. Kyyiv. nats. tekhn. un-t bud-va i arkhit. K., 2015. 36 s.

5. Architecture of Incarceration [Edited by Iona Spens]. London: Academy editions, 1994. 128 p.

6. Ofitsiynyy veb-sayt: Derzhavna penitentsiarna sluzhba Ukrayiny

[Elektronnij resurs]. URL: http://www.kvs.gov.ua

7. Kofman J. In Norway, a prison built on second chances [Elektronnij resurs]. URL: http://www.npr.org/sections/parallels/2015/05/31/410532066 (data zvernennya: 28.11.2016)

8. Campbell-Dollaghans K. A Prison Cell-Sized Room Designed by the Inmates Who Live in Them [Elektronnij resurs]. URL: http://gizmodo.com/5995111/a-prison-cell-designed-by-the-inmates-who-live-in-them (data zvernennya: 28.11.2016)

9. Kai Lin. Redesign Institutional Furniture [Elektronnij resurs].

URL: http://www.kailindesign.com (data zvernennya: 28.11.2016)

10. *Tuker E.* Karl Lenton designs egg-shaped movable therapy pods for prisons [Elektronnij resurs]. URL: https://www.dezeen.com/2015/09/29/karl-lenton-safe-innovations-seeds-movable-therapy-pods-prisons-uk-leeds/ (data zvernennya: 28.11.2016)

Аннотация:

формирования Третяк Ю. В. Принципы предметнопространственной среды для осужденных. В статье освещается проблематика становления и развития современного дизайна внутренней среды пенитенциарных учреждений, в частности, интерьеров жилья для осужденных. На основе теоретических источников и опыта проектирования установлены основные принципы формирования интерьеров и предметнопространственной среды исправительных комплексов: безопасности, функциональности, эстетичности и взаимосвязи.

<u>Ключевые слова</u>: внутренняя среда пенитенциарных комплексов, интерьер жилых помещений для осужденных, помещения для содержания осужденных, предметно-пространственная среда.

Анотація:

Третяк Ю. В. Принципи формування предметнопросторового середовища для засуджених. У статті висвітлюється розвитку проблематика становлення й сучасного внутрішнього середовища пенітенціарних закладів. зокрема. інтер єрів житла для засуджених. На основі вивчення теоретичних джерел й досвіду проектування встановлено основні принципи формування інтер'єрів та предметно-просторового середовиша виправних комплексів: безпеки, функціональності, естетичності та взаємопов 'язаності.

<u>Ключові слова</u>: внутрішнє середовище пенітенціарних комплексів, інтер'єр житлових приміщень для засуджених, приміщення для утримання засуджених, предметно-просторове середовище.

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