



# IMPROVEMENT OF EXPERIENCE PERCEPTION BY MEANS OF EXHIBITION DESIGN AND LIGHTING IN A GOLD MUSEUM

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## IMPROVEMENT OF EXPERIENCE PERCEPTION BY MEANS OF EXHIBITION DESIGN AND LIGHTING IN A GOLD MUSEUM

### Abstract

The article discusses the techniques of design and lighting of the museum's exposition and the solution of some problems of presenting the historical heritage on the example of the Hall of Gold at the National Museum of the Republic of Kazakhstan in Astana. The influence of lighting on the perception and cognitive processes of visitors, as well as on abstracting from the general background and focusing on exhibits, is analyzed. Examples of lighting design exhibits in other museums. Various models of museums are compared, their main characteristics and differences are highlighted. A survey was conducted among visitors regarding the comfort of perception and assimilation of information carried by the exhibits presented in the museum. It is concluded that the need for accent lighting and reduce distracting glare and extraneous light sources. An experiment was conducted with lighting in the museum, and the results of changes in the design of lighting and exposure at an exhibition in the specified hall were analyzed. A design project was developed that takes into account the features of the cognitive perception of the exhibits depending on the lighting and placement of information stands.

**Keywords:** interior design of the museum, presentation of historical heritage, accent lighting, the purpose of the museum exhibition, visual communication in the museum.

### Introduction

The National Museum of the Republic of Kazakhstan was opened to the public in 2014 in Astana. It includes the Hall of Gold, consisting of two halls, one above the other. The upper hall of the Hall of Gold has become the location of various-time

exhibits of various scales - from jewelry to complex reconstructions. A distinctive feature of the interior design of this hall are the opposing luminous walls on the long sides of the hall (Figure 1).



Figure 1 – The second hall of the Hall of Gold. The light behind the walls is turned on, creating bright glare on opposite windows. Exposure is difficult to regard.

Luminous walls are garnished with decorative elements made of red-hot glass. The effect of air and the feeling of open space creates a special atmosphere in the hall, however dispersing the attention of visitors. There is a problem of the perception of exhibits by visitors related to the design of the hall itself. Bright light emanating from opposite walls, reflected from each window, is the cause of massive and numerous patches of reflected light. Considering the length of the luminous walls on both sides of the hall, glare falls almost on every showcase, which is why it is impossible to see the entire contents of the showcase, without reflections (Figure 2, 3). To get rid of light spots, visitors have to come close to the showcase, creating a shadow, or to look from the side, which is also not very convenient, and does not eliminate patches of reflected light sufficiently. Because of the extensive surface of the light walls, as well as the direction of the light emanating from them, the display cases fade into the background, turning out to be darker, dimmer than the brightly lit walls. In addition, the existing labeling is made on a transparent material and pasted on the corners of showcases, often unnoticed by visitors, which is why the visual image is not correlated with textual information, or at least with the name of the object.

The light from the walls creates bright patches of reflected light, does not give the

opportunity to see the exhibit entirely.



Figure 2 – The second hall of the Hall of Gold. Showcase with Taksay priestess.

Thus, the processes of differentiation of exhibits from the background, as well as the cognitive capabilities of visitors, are unsatisfactory. The whole picture of the complex exhibits (reconstruction of costumes and attributes) cannot be detected by visitors because of the light noise - the presence of large glare on the glass surface of showcases. The visual discomfort is created among visitors, and they try to quickly leave the room.



Figure 3 – The second hall of the Hall of Gold. Light from the opposing wall interrupts the perception of the contents of showcases.

The problem is that due to the above reasons, the information provided by the objects in this hall is not properly perceived, the exhibits are not remembered, the opportunity to awaken interest in the history of the country is missed.

At the moment, this problem can be solved with several methods, connected with the design of the premises and of the exposition itself. The need for this is actualized in the program «Ruhani Zhangyru» (Spiritual rebirth), as well as in the article of the President of the Republic of Kazakhstan «Seven Facets of the Great Steppe», devoted to the historical heritage and its popularization.

### **Methods**

When solving the problem of exposition and lighting design in connection with the perception of the exhibits in the second hall of the Hall of Gold, various methods were used. To collect information about the features of visual perception and interior design of exhibition halls, a search for relevant literature was conducted. The method of observation, analysis and abstraction is used to evaluate the existing interior design and lighting of the exposition hall. Photofixation the overall picture of the hall and separate showcases before and after changing the lighting and interior, made it possible to most objectively evaluate the lighting design, and its effect on the visual perception of the exhibits and the effect on the visitor. An empirical approach allowed the experiment to be set up during the preparation for a temporary exhibition in 2017. Practical implementation of ideas for changing lighting design gave good results. A survey was conducted among visitors to the exhibition hall before and after changing the interior and lighting. The survey method helped to determine the influence of design and lighting factors on the memorability and perception comfort of the exhibits presented in the hall. The method of three-dimensional modeling helped to visualize the hall after reconstruction, even before the necessary work was carried out.

### **Results**

As a result of the experiment conducted during the preparation of the exhibition with a change in the interior design and lighting in the hall of the Gold Museum, as well as during the survey, were found out such facts: the reduction of light noise, and, as a result, distracting patches of reflected light, as well as alignment of the wall surfaces and placement of large scale information on them, significantly increases the cognitive processes of visitors, and the ability to differentiate the exhibits from the background. Thus, the walls, decorated with massive glass, arranged horizontally and vertically, were closed with temporary partitions with information about the exhibits. The accent light, aimed onto the showcases, and inside them - to the exhibits, clearly marked the target for the visitors and vice versa, literally led the interior elements that did not carry the information load into the shadow.

### **Discussion**

Information is assimilated the more fully, the more sense organs are involved in its assimilation, and the brighter are the emotions during this process. In this regard, it is important to emphasize the necessary information in the design of the exposition, and, on the contrary, to «lead into the shadow» the secondary information. With this task it is possible to cope with the help of lighting and other interior design techniques.

MUSEUM (from the Greek museion - the temple of the Muses), a research and educational institution that manages, stores, studies and popularizes historical, material and spiritual culture monuments [1, p. 325]. Modern museums have been developed from 15 - 16 centuries. Originally, the function of museums was

the storage, study and presentation of objects. However, with the development of the educational function of museums and their participation in the development of patriotism and interest in history, the most memorable presentation of information and the use of perception psychology in the design of museum expositions are coming to the fore. The functional purpose of the room affects its architectural design and the character of the decoration [2, p. 370].

It follows that in the design of the museum's exposition, the perception accessibility of the exhibits itself becomes important, while the interior of the museum fades into the background, that is, the interior design of the museum is needed only as a background for future exhibits that do not enter into a dispute. The design of the exhibition should be aimed at focusing on objects and information planes.

There are several approaches to the organization of museums. The first and most common model of the museum is didactic, or educational, based on a clear classification of the exhibits. The museums of such a model resemble the Linnaean table, where all the components are classified according to certain criteria, relating either to time, or to the type of activity, or to the material, and so on. In this model, the majority of museums in our country and abroad are made. However, it should be noted that in foreign countries began to deviate from this model, complementing, and often replacing it with others. Opposed to didactic - a hedonistic model of the museum, aimed exclusively to obtaining pleasure from the exhibition, without specifying the regular information about the object. One of the first examples of such a museum could be the Insel Hombroich Museum (Stiftung

Insel Hombroich) in Germany, conceived and built by a private person in the 90s of the 20th century. A distinctive feature of this museum is the aesthetic orientation of its exhibitions, often not equipped with any labeling. The main purpose of the museum is to obtain aesthetic pleasure from the contemplation of art objects and the surrounding interior and / or landscape, created specifically for specific objects of art [3]. Recently, the idea of a participatory museum is becoming more and more common, which is also intended for creative work, communication, and participation in various events. The term was proposed by the American specialist in organizing the interaction of museums with the public Nina Simon [4, p. 6]. Otherwise, this type of museum can be described as interactive, where visitors get involved in a game, participation, and can in some way influence museum events, create communities, and even programs. In this case, the popularization of museums occurs through the exhibition, and through the socialization of visitors. Traditionally museums were a space with a certain set of exhibits that were supposed to be viewed by a more or less prepared viewer independently or with a guide. Now museums often receive completely unprepared visitors, for whom most of the exhibits are completely unfamiliar and unclear, which, however, does not interfere them to rather quickly merge into the context due to special participatory techniques.

The didactic model of museums is connected with the purpose of visualization, illustrating information that is more or less known to the visitor. Such an approach implies calm and thoughtful consideration, and usually presupposes the preparedness of the visitor. The exposition of the museum is important for

the transmission of information. However, in conditions of accelerated pace of life, the visual presentation of information becomes an important component of the communicative environment.

At present, the use of electronic devices with bright screens represents a serious competition to the classic calm expositions of museums. Accordingly, it is moved into the foreground the art of design in a visual representation of information traditionally placed in a book and other print publications. Visualization of various aspects of museum exhibits requires the most accessible and quick acquaintance of the visitor with the exposition. To achieve this goal are used means and methods of design, a way to present textual information in the form of graphic and volumetric methods of communication. The role of placing accents on the exhibits, and not on the interior, is becoming stronger.

In the period of independent establishment, a respectable presentation of the country's cultural heritage, its deep comprehension and understanding, as well as popularization, become worthy. Over the years of independence, whole generations have appeared, that need accessible historical information. There were discovered a large number of previously unknown material. New archaeological finds and subsequent conservation, restoration and research work with them led to new scientific discoveries, elaborating and creating scientific subject-historical reconstructions, new hypotheses and information about the history, culture, worldview of antiquities. In this regard, the role of exhibiting examples of ancient art, which can reveal as much information as possible to museum visitors, is strengthened, and it is subject

to proper presentation. It is important to note that the increasingly widespread visual presentation of information affects both the mode of presentation and its perception skills. Most information consumers prefer short visual messages, design and interior elements that have informational and emotional issue. Thus, it is becoming increasingly necessary to use tools of design for the visual presentation of exhibits and information about them.

As Galkina T. writes in her book «Museology: The Basics of Creating an Exposition», the construction of a museum exposition is based on several principles: the principles of science, objectivity, clarity, universality. Observance of all these principles ensures that the visitor perceives the information embedded in the exposition [5, p. 7-8]. Museum interior designers must adhere to all these principles. By means and design techniques it is possible to strengthen them significantly, especially for clarity and objectivity.

Considering the narrow specificity of the direction of design work, a specialist in the field of design of museum expositions, willingly or unwillingly, needs to get deep enough into the essence of the objects presented to the public. Their belonging to a certain time, epoch, culture, people, as well as the peculiarities of manufacturing, the symbolic meaning of objects, impose on the designer the obligation to study the exhibits. Thus, a complete design project of the exhibition involves a multi-disciplinary, convergent approach in the preparation, development and implementation of the design project of the exhibition, and even re-exposition. Traditionally, the historians who make up the SEP (subject-exposition plan), museum keepers, exhibitors, security experts, and so on are involved in the development of the concept and

design of the exposition. However, the presence of narrow specialists does not detract from the need for the designer to thoroughly examine the exhibits and the main thing is to understand the purpose of the exhibition, that is – what changes should occur in the minds and imagination of visitors after visiting the corresponding museum. Actually, the application of a particular museum model, or a combination of them, depends on the goal, as well as on the target audience.

Such a convergent approach, and the designer's immersion into the scope of the exhibition helped a lot in creating the exhibition project of the Hall of Gold even before its implementation in collaboration with K. and D. Altynbekovs [6], [7]. Thus, the author, as a result of studying the features of archaeological excavations, the structure of mounds, art and worldview of early nomads, proposed the creation of a full-size model of the mound during its excavations. According to the author's idea, visitors would have the opportunity to see the whole mound, climb it by a bridge or ramp (for wheelchairs), and also become witnesses of imitation of the excavations. Also, it was proposed to visualize the mythopoetic image of the world tree and portray the symbolism of animalistic images. Unfortunately, from the proposed project only the idea of the mound was left, but not giving the visitor the possibility to see the whole kurgan (Figure 4).

Of course, museum exhibits can not give such complete information as literary sources, and they do not have this task. The task of the museum exhibits and the exposition as a whole is to arouse the interest of the viewer and encourage him to study the chosen topic in more detail, for which the museum store or library has all the necessary tools.

Rudolf Arnheim in his book «Art and



Figure 4 – Model of the Saka mound in the project of the Hall of Gold exhibition, proposed by the author with coauthors in 2012.

Visual Perception» writes: «And the deepest essence of art lies in the unity of the idea and its material embodiment» [8, p. 6]. The idea of the modern historical museum is to attract, involve the visitor, intrigue, awaken interest in history of their country. The exposition and activity of the museum becomes the material embodiment and means of execution of this idea. With the advent of digital technology, it becomes possible and necessary to create such spaces of museums in which you can put virtual scenery, «revived» exhibits and the visitor himself.

A traditional museum with a didactic model is transformed into a mixed type museum, where all three models of the museum interact - didactic, hedonistic, and participatory. For the most complete impression of the museum, it is necessary to use most of the senses. Of course, the most important in the museum are the visual sensations. A huge role is played by lighting and color - these are active and specific components of the architectural and artistic ensemble. With their help, you can combine the exhibition complexes into one harmonious unit, to focus on the most important exhibits. The correct choice of lighting contributes to the accurate transmission of the color of the exhibits, enhances emotional perception. For example, consider other museums.

One example of a well-designed museum is the A. Kastejev Museum of Art

in Almaty. This is one of the few museums in the post-Soviet space, the building of which was not adapted to the museum, but was designed specifically for the museum, taking into account all the norms of museum work. Thus, the need for daylight, humidity and temperature control was taken into account, freight elevators, wide corridors and doorways for transporting large-sized exhibits, access for trucks, and a depository were provided. In addition, in this museum, the need to show not the interior, but the actual exhibits was taken into account, for which all surfaces (floor, walls and ceiling) are made of relatively matte, non-reflective materials. To get rid of the echo when walking, the floor covering is made of parquet, which partially absorbs the sound of heels. Soft diffused light makes this museum comfortable to visit. Another important feature of the museum is the creation and placement in it of the means of exploring the exhibits for people with disabilities. So, in the hall of oriental art, next to the pile carpet, its plaster reduced model is placed, where the plot of the carpet is made in volume - for touch by visually impaired visitors. In addition, in the museum near the exhibits there are QR codes for scanning by smartphones, and providing additional audio and text information via the link.

Another example of exhibit lighting is the National Museum of Korea in Seoul. The exhibition is designed in such a way to pay maximum attention to the exhibits, and not to the interior of the museum. The main exhibit of the National Museum in Seoul is the famous golden crown of the Silla era, located in a dedicated hall for it. Only the crown itself is illuminated, which makes it more significant in the eyes of visitors.

Kinesthetic and static sensations are provided by the actual architecture of the

room, it is divided into blocks and sections. For their stimulation, it is worth dividing the room with showcases or other objects into certain parts, spaces, creating a rhythm, and thus avoiding monotony. It is also important to supplement the information planes, located at eye level, with certain vertical objects that give a feeling of air and the height of the room. Such vertical objects should not be located along the entire plane of the wall, but rather be a rare exception, forcing the visitor to keep his head up and down. Verticals can be used as information carriers, screens, posters, objects. In addition, it can be used to change the height of the floor, accommodation in the podium for visitors to view the exhibits from a new, higher point. Changing the position of the body in space brings newness and interest to the museum. There is a reason for movement and additional interest in the object.

Auditory sensations can be provided with both an audio guide and soundtrack of dioramas, films or animation. For example, the reconstruction of horses in full ceremonial equipment can be accompanied by the sounds of horse neighing, hooves hitting the ground, the noise of grass.

Tactile sensations are especially important for children and for people with visual impairments. To ensure direct contact with the subject, an exact copy of the artifact is set up, and is proposed for testing. Examples of this approach can be found in the National Museum in Budapest, the National Museum of Korea in Seoul and others.

With the general dimmed light, and accent lighting of the exhibits, the exposure is remembered better, since the desired subject stands out against the general dark background. And vice versa -

counter-lighting located behind or around the exhibit distracts attention from it and makes it faded.

Non-observance of this principle can be seen on the top floor of the Hall of Gold at the National Museum of Kazakhstan in Astana. Bright luminous walls with glass glares with vertical and horizontal elements overlap the accent light in the showcases and create a bright reflection in the opposite windows of the showcases, making it impossible to see the entire exhibit. As a result, the exhibits drown in the general bright light, they can not be seen entirely, not coming close to the window, thus creating a barrier from the opposing light (Figure 5).

The problem of perception of the



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Figure 5 – The second hall of the Hall of Gold. Changing the angle of observation, as well as placing the visitor between the light and the showcase, does not fully eliminate many patches of reflected light.

exhibits in the showcases was evident (Figure 6). To solve the existing problem, two methods were used. Both methods were tested during the preparation of a temporary thematic exhibition in the second hall of the Hall of Gold - «Scythian Gold» [9]. The exhibition was held under the auspices of KazRIC - Kazakh Research Institute of Culture, based in Astana, as part of a comprehensive program of cultural support for the international

exhibition EXPO-2017, as well as the twentieth anniversary of the northern capital of Kazakhstan. The author was lucky to become one of the curators and designer of the exhibition. According to the concept of the exhibition, the culture and art of the early nomads - Scythians and Saks should be presented. To accomplish this task, exhibits representing the Scythian culture are used from the collections of the National Museum of Kazakhstan, the Orenburg Governor's Local History Museum, and also from the collection of the restorer Krym Altynbekov. It should be noted that some of the necessary exhibits were already in the permanent exhibition of the specified hall. Another part of the permanent exhibition was ethnographic silver jewelry dating back to the 18th and 20th centuries. To comply with the thematic focus of the exhibition, in the hall were left only those exhibits that fit the topic. They were complemented by items from Orenburg and from the collection of the Krym Altynbekov.

For a visual change of the hall, as well as for a greater information issue, the configuration of the hall was slightly modified with the help of large temporary partitions, which are information panels. During the preparation of the exhibition, it became possible to try out two ways of changing space.

In the first case, the light of the walls was turned off, while the lighting of the showcases and the dimmed light on the ceiling remained on (Figure 7). This simple technique dramatically transformed the room. The dazzling light of the walls no longer prevented the public from observing the exhibits, the very configuration of the hall visually changed, it became more interesting for visitors to view objects in showcases, since there were no patches of reflected light from the opposing wall.

In the second case, the same principle is used, and the author has developed an exposition, where informational panels illuminated with a point light (Figure 8) located between the showcases. Both versions showed good results - the exhibits became clearly visible and attracted more attention, visitors were not distracted by stray light. The exhibits behind the glass became visible entirely even from a distance, as in this case there were no major glares from the opposing walls. In addition, the overall impression of the hall changed significantly, as soon as the exhibits were highlighted by light. Illumination of showcases, together with the light of the walls turned off, distinguished them from the general background and made them noticeable to visitors.

The decision on the construction of

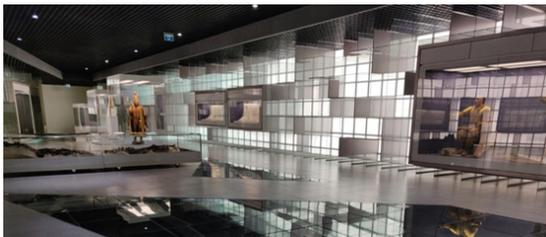


Figure 6 – The second hall of the Hall of Gold. The light behind the walls is turned on, creating bright patches of reflected light on opposite windows. The exposition is difficult to see.

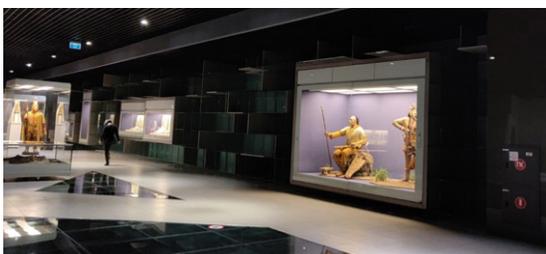


Figure 7 – The second hall of the Hall of Gold. The light behind the walls is turned off, no glare on the showcases is created. Exposition is clearly visible.

temporary panels, partitions, provided with information about the exhibition, made the exhibition look like a catalog, a book, turning over the pages of which, the reader then perceives illustrations, then becomes



Figure 8 – The second hall of Hall of Gold during the exhibition «Seythian Gold» in 2017. The light behind the walls is turned off, the space between the showcases is filled with information panels with spot lighting. A rhythm is created from showcases and information planes. Accent lighting emphasizes the exhibits.

acquainted with the accompanying text. Having thought over the route of movement of visitors, the texts and illustrative material on the partitions were arranged by the author in such a way that, step by step, acquaint the visitor with the subject of the exhibition. Information about the exhibition meets viewers, moving on to more detailed information about the era and culture of the early nomads, the meaning of animalistic images, and so on. Some complex reconstructions of costumes and attributes are provided with a separate detailed description of the place, time and authors of the find, the composition of the costume and its distinctive features. It should be noted that the font size in the texts was chosen in such a way as to give the opportunity to observe it from a distance of 1-2 meters, which allowed several visitors to read the text at the same time without interfering with each other.

In some partitions, additional niche-showcases are left. The alternation of textual, illustrative information and display cases with exhibits created a certain rhythm designed to keep the viewer's attention as long as possible. For a comfortable visual perception, as well as to combine exposition in a single unit, along all the panels on the upper side, light sources are installed, at equal distances from each other. However, the greatest degree of illumination created in the showcases, making them the real center of

attention for the audience.

The empirical approach allowed us to obtain objective conclusions about the impact of lighting and design exposure on visitors. Observations were made of the reaction of visitors with the wall light turned on, and with it turned off. In the course of the observations it was noticed that when the walls were turned on, the visitors seemed somewhat confused, they could not immediately decide in which direction to move, as the bright fill with light did not give any accents. As a result, those who came aimlessly wandered around the hall, without being able to carefully examine the exhibits. The respondents noted discomfort from the inability to observe objects behind the glass as a whole. They had to gather in groups in front of the showcases, thus creating a barrier of light in order to be able to see the whole exhibit, without glare on the glass, however, they did not fully succeed in this either. The inconvenience made the audience leave the hall without having considered the exhibits. Visitors noted dissatisfaction.

Conversely, visitors to the hall with the walls of lights turned off, as well as the hall during the exhibition «Scythian Gold», immediately determined the direction of movement in the direction of accent-lit windows and artistically decorated texts. Visitors on duty considered the objects, which in this case were seen entirely. Applied information panels on the exhibition created a kind of rhythm. During the survey, visitors noted the pleasure of viewing the exposure and acquaintance with textual information. Comfortable movement, the ability to perceive the information panels by groups of people, and their accessibility, as well as, of course, quite brightly lit exhibits in the showcases made visiting this room

enjoyable and memorable. Consequently, the goal of popularizing history is achieved. Considering the above, we can conclude that it is not the walls that should be highlighted but the showcases of the museum, which will significantly increase the susceptibility and psychological comfort of visitors.

For a young, independent Kazakhstan, it becomes important to attract the younger generation to museums to create a visual image of the history of their country. But this is possible only if the design of unusual, interactive, involving most of the sense organs of exposures arises. The didactic approach in museums currently cannot exist separately. Museums can and should strive to socialize and absorb new trends and technologies.

The problem of proper and comprehensive presentation of the historical and cultural heritage is raised in the program «Ruhani Zhangyru» (Spiritual Revival), as well as in the recently published article of the President of the Republic of Kazakhstan «Seven Facets of Great Steppe», calling for «actualizing the centuries-old heritage of our ancestors, making it understandable and in demand conditions of digital civilization» [10].

### **Conclusion**

The design of the exhibition depends on the purpose of the museum. Whatever model the museum adheres to, its main goal is education, popularization of history, the origin and increase of interest in history and culture, as well as, in the conditions of modern Kazakhstan, increasing patriotism among visitors. To achieve these goals, the museum must become a place where the visitor wants to return. And that means - to become comfortable for the pastime, for the perception of the exhibits, and for the assimilation of textual information and

elements of visual communication.

The exhibition «Scythian Gold» in the second hall of the Hall of Gold at the National Museum of the Republic of Kazakhstan clearly showed the dependence of the perception of the exhibition on the interior design and lighting, and of course on the logical arrangement of the elements. Accent lighting of showcases, large text blocks, rhythm make the exposition pleasant for viewing and facilitate the orientation of

visitors.

At the time of this writing, the museum management decided to introduce the above principles into the permanent exhibition of the second hall of the Hall of Gold. The author has completed the re-exposure project and the works on its implementation are mostly done, particularly for the exhibition «Urzhar priestess and restored treasures: Results of conservation and restoration works».

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#### **АЛТЫН МҰРАЖАЙЫНДАҒЫ КӨРМЕ ЖӘДІГЕРЛЕРІ ЖӘНЕ ДИЗАЙН ЭКСПОЗИЦИЯСЫН ЖАРЫҚПЕН ҚАБЫЛДАНУЫН ЖАҚСARTY**

##### **Аңдатпа.**

Мақалада мұражай экспозициясының дизайны мен жарықтандыру әдістемесі және Астана қаласындағы Қазақстан Республикасының Ұлттық музейіндегі Алтын мұражайдың мысалында тарихи мұраны ұсынудың кейбір мәселелерін шешу қарастырылған. Жарықтандырудың келушілердің танымдық және когнитивті процестеріне әсері, сондай-ақ экспонаттарды жалпыға ортақ деркордан ерекше көрсету және назар аудару. Басқа да мұражайлардағы жарықтандыру дизайн мысалдары. Мұражайлардың түрлі модельдері салыстырылады, олардың негізгі сипаттамалары мен айырмашылықтары бөлінеді. Мұражайда ұсынылған экспонаттар туралы ақпаратты қабылдау мен ассимиляциялау жайлы қонақтардың арасында сауалнама жүргізілді. Зерттеудің жарықтандыру қажеттілігі мен шағылысатын жарық пен сыртқы жарық көздерін азайту қажеттілігі туралы қорытынды жасалды. Мұражайдағы

жарықтандырумен эксперимент жүргізілді және осы залды көрмеде жарықтандыру мен экспозициялық жобалау өзгерістерінің нәтижелері талданды. Ақпараттық стендтерді жарықтандыруға және орналастыруға байланысты экспонаттардың когнитивтік қабылдау ерекшеліктерін ескеретін жобалық жоспары әзірленді.

**Түйінді сөздер:** мұражайдың интерьер дизайны, тарихи мұраны таныстыру, акцент жарықтандыру, музей көрмесінің мақсаты, мұражайдағы көрнекі байланыс.

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## **УЛУЧШЕНИЕ ВОСПРИЯТИЯ ЭКСПОНАТОВ С ПОМОЩЬЮ ДИЗАЙНА ЭКСПОЗИЦИИ И ОСВЕЩЕНИЯ В МУЗЕЕ ЗОЛОТА**

### **Аннотация.**

В статье рассматриваются приемы дизайна и освещения экспозиции музея и решение некоторых проблем презентации исторического наследия на примере Музея золота в Национальном музее Республики Казахстан в Астане. Проанализировано влияние освещения на восприятие и когнитивные процессы у посетителей, а также на абстрагирование от общего фона и акцентирование внимания на экспонатах. Рассмотрены примеры дизайна освещения экспонатов в других музеях. Сравниваются различные модели музеев, выделяются их основные характеристики и отличия. Проведен опрос среди посетителей на предмет комфортности восприятия и усваивания информации, которую несут представленные в музее экспонаты. Делается вывод о необходимости акцентного освещения и уменьшения отвлекающих внимание бликов и посторонних источников света. Поставлен эксперимент с освещением в музее, а также проанализированы результаты изменения дизайна освещения и экспозиции на выставке в указанном зале. Разработан дизайн-проект, учитывающий особенности когнитивного восприятия экспонатов в зависимости от освещения и размещения информационных стендов.

**Ключевые слова:** дизайн интерьера музея, презентация исторического наследия, акцентное освещение, цель музейной экспозиции, визуальная коммуникация в музее.

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