



WPŁYW CHARAKTERYSTYK FUNKCJONALNYCH CENTRUM ARTYSTYCZNYCH NA KSZTAŁTOWANIE ICH PRZESTRZENI

THE EFFECT OF FUNCTIONAL CHARACTERISTICS OF ART CENTRES ON THEIR SPACE FORMATION

Bilous Yulia
Magister architecture

Lviv Polytechnic, National University
Institute of Architecture
Department of Design and Theory of Architecture

STRESZCZENIE

W zależności od mianowania centrów artystycznych, ich misji, zasięgu realizacji projektu i jego zasobu zabezpieczenia, uwzględnianie potrzeb społeczno-socjalnych, spis funkcji które one wykonują, może istotnie zmieniać się. Poza tym charakterystyki funkcjonalne wyznaczają strefy przestrzeni wewnętrznej centrum artystycznych, muzeów, galerii. W pracy zaproponowany schemat związku wzajemnego funkcji muzeum artystycznego i jego strukturalno-przestrzennych stref.

Słowa kluczowe: centrum artystyczne, muzeum, funkcje, przestrzeń, związek wzajemny.

ABSTRACT

A list of functions of any art centres may vary greatly, depending on their mission, project scope and resources, and public and social requirements to be satisfied. Moreover, functional characteristics determine inner space zoning of art centres, museums, and galleries. This article offers a matrix scheme of inter-connections of a museum of art and structural and spatial zones of such museum.

Key words: art centre, museum, functions, space, inter-connection.

INTRODUCTION

An 'art centre' phrase can be encountered often in books at the current developmental and design stage of cultural facilities. According to Graeme Evans, British scientist, art centres are spaces that eliminate the barrier between passive involvement of viewers and art objects, thus creating an environment that differs from the traditional museum space and has been formed engaging new technologies, audio and visual media, and process design¹. We are talking about creation of a new museum structure to be defined by the synthesis of content and form and having a new set of functional characteristics. The architecture should be viewed in the modern museum architecture not just as 'a project', but also mainly as a functional environment housing the art.

FUNCTIONAL ROLE OF ART CENTRES

Basic functions of museums of art underwent significant changes for the 20th century. M.Pabich, a Polish architect, points out in his book about forming museums of art that a lot of famous artists considered the 'museum to be a conserved illustration of life, and some even compared it to a cemetery up till the middle of the last century'². However, new modern museums appeared parallel to the rapid pop-up development in the second half of this century, where new functions originated.

D.Buren, a modern French conceptualism artist, distinguishes three new functions of museums along with the known technical functions, such as demonstrating and collecting works of art, and protecting, and preserving showpieces. Formation of aesthetic relations, i.e. the museum is a frame framing the art, is considered one of such new functions by the author. The second function is an economic one. Museums are the medium for formation of a certain value of pieces of art. In addition, the third one is mystical, as long as the mystical meaning of the piece is generated via demonstrating such piece at the museum³.

Modern art centres are known for the interaction between the architecture and art contents; thus and so, an exposition space is one of the most important functional element for formation of expositions. Comprehensiveness in terms of functional specification, and flexibility and dynamics of the exposition formation in relation to the architecture are its main specifics. Any expositional space has its own individual architectural and design solution that is mainly determined by the activity and collection of the art centre. According to V.Reviakin, the 'expositional space is a leading element in the functional structure and architectural exposition of a building with the architectural and spatial structure of such space, in particular the shape, dimensions, inter-connection between the space and other rooms or adjoining spaces, to be determined by the exposition specifics'⁴.

An approach by the Ministry for Culture and Sport of Spain is an example of the governmental policy for determining the functional role of modern museums. The web-site of the Ministry stipulates four basic functions of national museums, such as documenting museum collections, promoting works of art, preserving items of display, and conducting research⁵. Basic functions of museum facilities of Ukraine, such as accounting, utilizing, protecting, preserving, conserving, restoring, and determining estimated and insured

¹ Evans G. Cultural Planning: An Urban Renaissance?, London, Routledge, 2001, p.95.

² Pabich M. On Shaping the Art Museum. Space More Beautiful than the Object, Katiwice, Muzeum Slaskie, 2007, p.229-230.

³ Buren D. Function of the Museum. The Museum as Arena. Artist on Institutional Critique, Koln, Verlag der Buchhandlung W.Konig, 2001, p. 40.

⁴ Reviakin V. Art Museums, Moscow, Stojizdat, 1991, p. 131.

⁵ The Ministry of Education, Culture and Sports of Spain. Functions of museums <http://en.www.mcu.es/museos/CE/Funciones/Introduccion.html>.

value of museum items have been outlined in the Regulation on the Ministry of Culture of Ukraine⁶.

Such basic functions as holding and demonstrating items of display and serving viewers are included in any museum a priori⁷. Da Mosta exhibition hall in New Canaan, the USA, arch. F. Johnson, is an example of implementing the simplest list of museum functions. An exhibition space that combines a vestibule and a working space of the personnel, a lecture hall (15 seats) and a bathroom is arranged in a facility of total area less than 100 m²⁸ (Fig. 1).

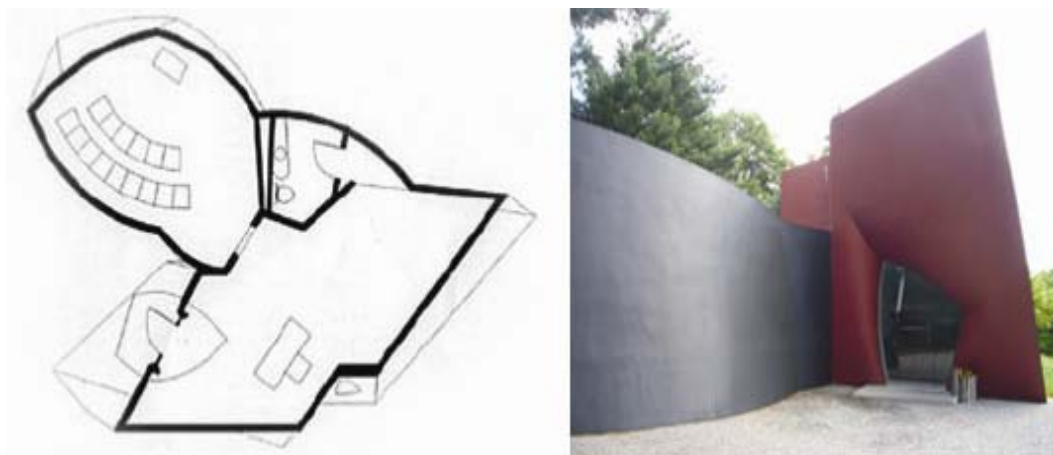


Fig. 1. Da Mosta exhibition hall, arch. F. Johnson, the USA, Source: <http://theglasshouse.org/history/bios/damonsta/>

The function of preserving and demonstrating items of art is ambiguous in terms of architectural implementation. First of all, great differences for accepting certain architectural and structural solutions are dependent on not only museum focus on permanent collections or temporary exhibitions, but also rotation of items of art in the main collection, frequency of alternation of temporary exhibitions, art trend and scope of the collection, and physical dimensions of items of art etc. Demonstration areas were calculated for the Menil Collection Museum in Houston, the USA, which was constructed according to a project by the R. Piano and R. Fitzgerald workshop in 1987, area: ca. 11 thous. m², at the design stage to meet the needs of simultaneous demonstration of 10% of the collection only, as proposed by D. Menil, the author of the collection, collector. For the viewers to be able to see the whole museum collection, the collection has been rotated continuously according to a certain pattern (Fig. 2).

The functional purpose of museum rooms determines museum layout on the plan, dimensions, and inter-connection with other facilities, and establishes serious requirements to exposition design. The analysis of various layout patterns of pieces of modern art at exposition facilities is indicative of non-availability of the unique algorithm for calculating the facility area for permanent museum collections. 'Formation of a museum exposition space is always a process of multi-way cooperation of the architect with the museum curator, management committee, collection owner, professional art consultants, and even with the authors of pieces of arts themselves'⁹.

⁶ Position about Ministry of culture of Ukraine, from Septembers, 3 in 2014 № 495 /mincult/uk/publish/article/81368.

⁷ Reviakin V. Art Museums, Moscow, Strojizdat, 1991, p. 124.

⁸ Newhouse V. Towards a new museum, NY, Monacelli Press Inc., 2006, p.126.

⁹ Macleod S. Reshaping Museum Space: Architecture, Design, Exhibitions, London, Routledge, 2005, p.18.

Fairly loose placement on walls, excluding any over-filling of exposition surfaces, or information and emotional overloading of viewers, while allowing them to navigate easily through the exhibition hall, is the most popular layout scenario for pieces of modern fine art. The architect R.Piano provided 3,500 m² of exposition areas, when designing the Beyeler Foundation Museum in Basel, Switzerland in 1997 to accommodate 160 pieces of art from the foundation collection¹⁰ (Fig. 3).

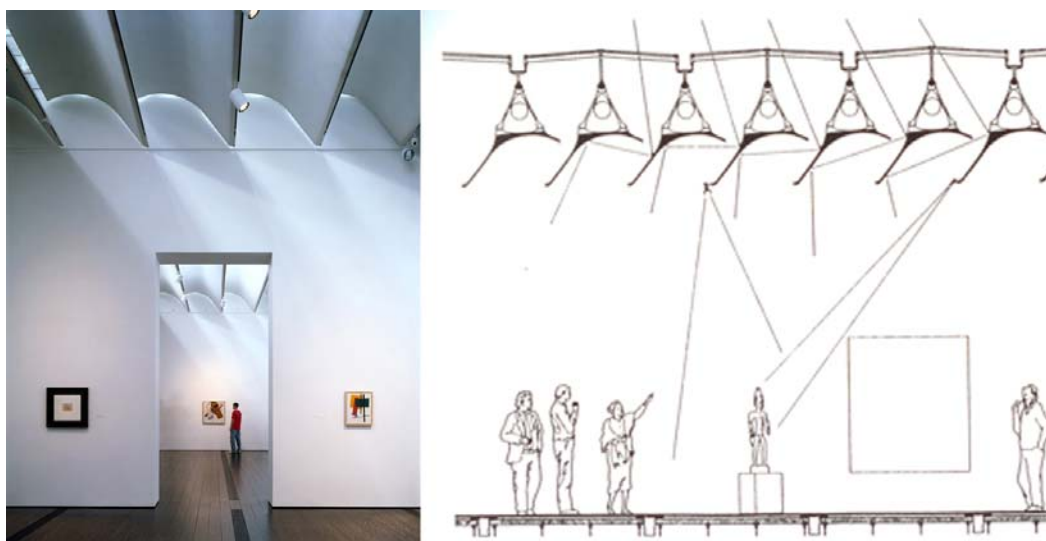


Fig. 2. An example of loose layout of pieces for display at modern art museums. The Menil Collection Museum, arch. R.Piano; Source: <https://buildllc.wordpress.com/2008/03/17/sun-screens-international/>



Fig. 3. The Beyeler Foundation Museum, arch. R. Piano. Source: <http://centerbrook.com/blog/2013/04/tale-of-two-swiss-art-museums/>

¹⁰ Macleod S. Reshaping Museum Space: Architecture, Design, Exhibitions, London, Routledge, 2005, p.18.

Some architects apply a pattern of conditional partial division of the exposition space, while the exposition is divided into separate zones, but there are some viewing points allowing for perception of the general exposition outline, and selection of a certain point of focus for oneself. The Weisman Art Museum in Minneapolis, the USA, constructed according to the project by Frank Gehry in 1993, is an example of such structure of the exposition space (Fig. 4).



Fig. 4. Partial division of the exposition space at the Weisman Art Museum in Minneapolis, the USA, arch. Frank Gehry, 1993. Source: <http://www.yelp.com/biz/weisman-art-museum-minneapolis>

Distinctive approaches to designing temporary exhibition displays of pieces of modern art are demonstrated by the author of the Kunsthau Bregenz, Austria, which opened in 1997, architect Peter Zumthor, Total facility area is 3,300 m². The project author started with isolation of a separate room for administrative and other supporting purposes (a library, a shop, a restaurant). All utility spaces, including a climate control plant, are located on two underground floors¹¹. In addition, while designing the exhibition halls, and interior, the architect continued with the principle of simplicity and aesthetic minimalism, which was applied outside the building. The exhibition halls on the ground to the third floors are the same and in the shape of a rectangular space, dimensions: ca. 20x20m, excluding any extra supports¹². Such structure of the exhibition space allows for displaying pieces of modern art excluding practically any limitations as to physical dimensions, composition, and layout of the pieces (Fig. 5).

Demonstration halls are certainly the central facilities in any museum. However, the analysis of projects of modern art museums is indicative of the great importance given to selection of structures of rooms, where viewers are first served and informed and which provide access to the exposition rooms and their inter-connection. Therefore, projects of the most famous modern fine art museums, which were appraised top high by the architectural community, and most of all, by museum visitors, are notable for original solutions that welcome the visitors at the museum entrance, i.e. atria, lobbies, naves, ramps, stairs etc.

Exposition of permanent art collections includes such functions as art preservation, maintenance, and restoration, documentation and archiving of any information regarding the art, research of certain pieces of art, pieces by a certain artist or artists of a certain school etc. Let us summarize and systemize architectural, design and spatial solutions applied by architects for modern art museum design to implement effectively such functions.

¹¹ Newhouse V. Towards a new museum, NY, Monacelli Press Inc., 2006, p.59.

¹² Kroll A. AD Classics. Kunsthau Bregenz. Peter Zumthor 27 Jan 2011. <http://www.archdaily.com/?p=107500>

Project authors must have information available about any equipment which will be used by the museum personnel at museum depositories for designing such depositories, calculating their area and height. E.g. while designing the Modern Art Museum Towner in Eastbourne, Great Britain, the architect planned to use special equipment in the depository for vertical placement of pictures, which not only allows for storing the pieces of art, but also for demonstrating them to researchers and visitors. For this purpose, the depository is located on the ground floor near a permanent collection exposition hall (Fig. 6).

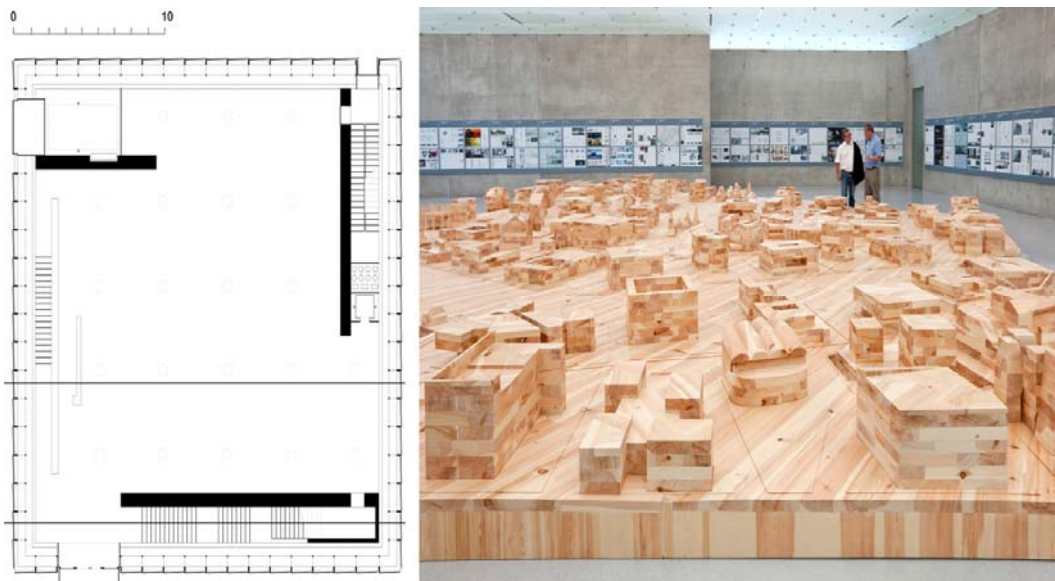


Fig. 5. Kunsthhaus Bregenz, Austria, arch. Peter Zumthor, 1997. Source: <http://www.kunsthhaus-bregenz.at/>

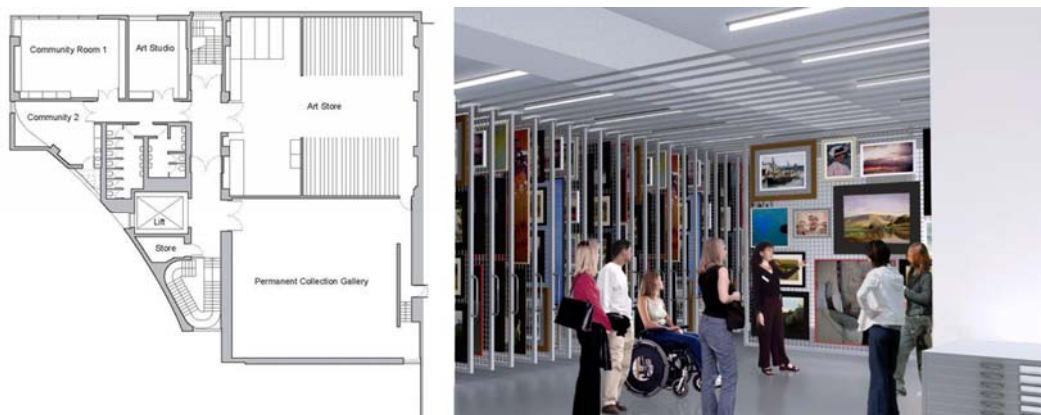


Fig. 6. Depository of the Modern Art Museum Towner in Eastbourne. Great Britain, 2005, Source: <http://www.townereastbourne.org.uk/exhibitions/>

Museum depositories are connected to restoration and art studios in terms of function and architecture and planning. While planning their location and dimensions, designers, together with the museum experts, are guided by the number and condition of museum collection, number of staff and equipment used. Museum promoters sometimes unveil the restoration studio to the visitors, like with the museum depositories. A restoration studio is located on the top floor near the Southern Hall at the Dallas Museum of Art, the USA, arch. E. Barns, 1993 (Fig. 7). This studio serves as a centre for research and restoring pieces of art, and research of cutting-edge technologies and art preservation techniques.

Sliding glass doors allow visitors to watch restorers' work. The architects also provided a special hall to demonstrate freshly restored pieces of art near the studio.



Fig. 7. Restoration studio at the Dallas Museum of Art, the USA, arch. E. Barns, 1993. Source: <https://www.dma.org/art/conservation-dma>

Libraries, which form an integral part of the museum, perform archiving functions in most modern art museums. However, some architects and collection founders consider the library to be an element of direct servicing of visitors and locate the library in the circulation areas, which are accessible from lobbies, atria etc.

We can demonstrate another location of the library using the Musée Würth Erstein, France. 2008. The architects located the library outside the visitor circulation area, specifically in an educational area on the first floor furthest away. Library area is 35 m², which is just one per cent from the total museum area(Fig. 8).

Absolutely all modern art museums offer educational programs. For this purpose, museum designers offer to use multi-functional rooms, i.e. film and lecture halls, conference halls, meeting halls, or provide special rooms, i.e. study rooms, classes, studios, or play-rooms.

The architect offered a universal play area near a large lecture hall for educational purposes in the CODA Museum, Apeldoorn, the Netherlands 2004. A children's library, attractions, multi-media, creative work areas were provided in this area for the kids from 0 to 18 years old(Fig. 9).

The above cited solutions for the museum space and analysis of numerous science, architecture, and fiction literature discussing the functionality of art centres allows us to offer the following interconnection matrix for the fine art museum and structural and spatial areas of such museum(Fig. 10).

This matrix has been formed using the technique of field observation of museums and analysis of theoretical sources. An original development has been presented to determine the relation between structural and special zones and functions of an art museum. This relations is determined by grading the factor from 0 to 5, where 0 means no relation, and 5 means a direct relation. Determination of the relation using the matrix is not only important for theoretical research, but it is considered in design of spaces of fine art museums. Matrix outputs may be implemented in design of modern museums, as long as the determination of the relation between functions and spatial zones allows for correct and efficient museum area distribution. E.g., according to the matrix, display halls, theme or temporary display halls relate most greatly to the museum functions, and, therefore, require the use of bigger areas. Moreover, the matrix shows high-priority museum zones. Future basic functions of a museum are considered in the design project of such muse-

ums. Thus and so, such matrix is already important at early design stages. E.g., if a museum is going to perform all basic functions, we can see required zones that must be designed for such functions, using this table.

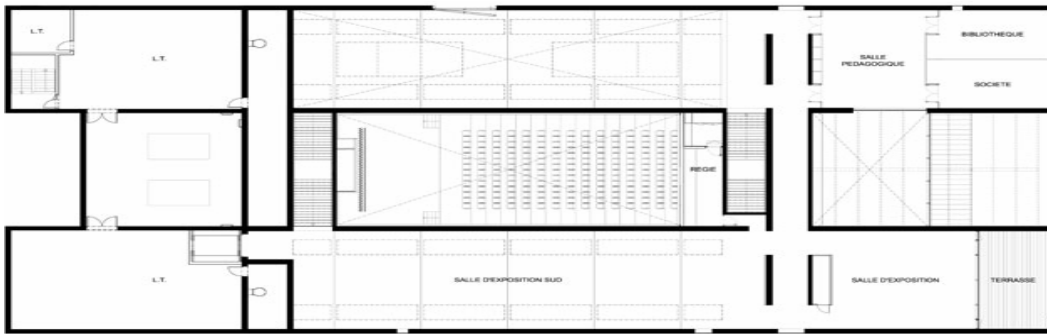


Fig. 8. First floor plan of the Musée Würth Erstein, France, 2008. Educational area occupies three rooms on the plan in the upper right area. Source: <http://www.musee-wurth.fr/wp/>.

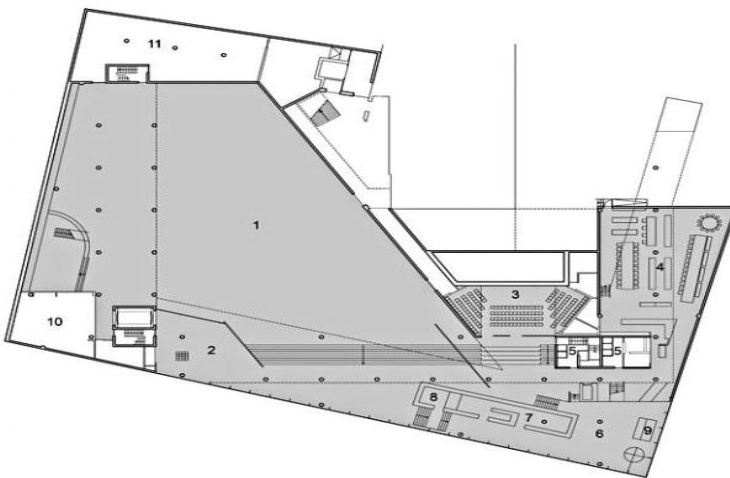


Fig. 9. Playing zone in Museum CODA, Apeldoorn, Netherlands, 2004. Source: <http://www.coda-apeldoorn.nl/coda-junior/coda-gamezone/>

		Functions of art museums																	
		Basic functions										Auxiliary functions							
		Demonstration of works of art	Storage and preserving of works of art	Collecting art works	Rotation of permanent collections, organization of temporal exhibitions	Account of works of art, documenting of museum collections	Defence and preserving of exhibits	Promotion of art works	Archiving of documents and historiography of museum, his creation, building, exhibitions	Researches	Restoration of museum objects	Determination of evaluation and insurance cost of museum objects	Educational services	Aesthetic education	Informative-cognitive activity	Entertaining functions	Cinema/concerts activity	Maintenance of visitors	
Structural-spatial areas of display space of artistic museums	Area of visitors	Lobby, vestibule, atrium, hall, corridor, portico	2	2	0	2	0	2	1	0	0	0	0	1	1	1	5	5	5
		Halls of permanent displays	5	5	3	5	5	5	2	0	4	0	5	2	5	0	0	0	5
		Halls of thematic displays	5	5	5	5	5	5	3	0	4	0	5	2	5	0	0	0	5
		Halls of temporary exhibitions	5	5	2	5	5	5	4	0	4	0	5	2	5	0	0	0	5
		Multimedia hall	0	0	0	0	0	2	5	0	0	2	0	5	3	5	4	2	5
		Library	0	0	0	0	0	0	3	3	5	0	3	5	4	5	0	0	5
		Bookstore	0	0	0	0	0	0	2	0	0	0	0	3	2	5	0	0	5
		Cinema/lecture/conference hall	0	0	0	0	0	0	5	0	0	0	3	4	4	5	4	5	0
		Audiences	0	0	0	0	0	0	5	0	0	0	0	5	1	5	3	0	0
		Classes	0	0	0	0	0	0	5	0	0	0	0	5	1	5	2	0	0
		Playing room	0	0	0	0	0	0	0	0	0	0	0	5	5	5	1	1	3
		Places for rest	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5	0	5
		Restaurant, cafe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
		Informative service, cashdesk, excursion bureau	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5
	Cloak-room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
	Sanitary rooms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
	Official area	Fund	2	5	5	5	5	5	0	3	5	2	3	2	0	0	0	0	0
		Restoration workshops	1	5	4	0	0	5	2		5	5	4	2	0	0	0	0	0
		Artistic workshops	0	0	0	5	0	5	3	0	0	3	0	5	5	0	0	0	0
		Archive	0	0	0	0	5	0	0	5	5	4	3	3	0	0	0	0	0
		Office rooms	0	0	5	0	5	0	4	5	1	0	5	1	0	0	0	0	0
		Technical workshops	0	5	0	5	0	5	0	0	0	3	0	0	0	0	0	0	0
		Rooms of personnel	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0
		Room of securite	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
		Technical rooms	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
		Publisher center	0	0	0	0	0	0	5	0	0	0	0	1	0	5	0	0	0
Photolaboratory		0	0	0	0	0	0	5	5	0	0	0	0	0	5	0	0	0	
Library depository		0	0	0	0	0	0	0	4	0	0	0	5	4	4	0	0	0	
Guest rooms	0	0	5	0	0	0	5	0	5	0	5	0	0	0	5	5	0		

Fig. 10. A matrix scheme of inter-connections of a museum of art and structural and spatial zones of such museum (inter-connection an estimation from 0 -is absence of inter-connection, to 5 - is direct inter-connection)

CONCLUSION

Versatile approaches to determine the functionality of museums are indicative of the fact that functions of fine art museums may be discussed and classified in different terms. The researcher tried to determine all possible functions of art centres and analyze the effect of the comprehensive list of museum functions on formation of the architectural space of such museum.

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AUTHOR'S NOTE

The author is an assistant at the Department of Design and Theory of Architecture of the *Lviv Polytechnic, National University*.

Kontakt | Contact: yulia_bilous@yahoo.com