

VISUAL COMMUNICATION SYSTEM AS AN IMPORTANT COMPONENT OF LIBRARY INTERIOR DESIGN

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Abstract: *In this article, the author considers the problem of orientation in the large spaces of the library. An analysis of the literature and world experience of designing a visual communication system was carried out. The importance and necessity of designing spatial orientation systems in the architectural space of libraries was considered. Special attention is paid to the main functions, options for use, installation and types of influence on the interior design of modern libraries. Innovative virtual and augmented reality orientation systems in normal and critical situations are considered. It was determined that the means of visual communication in the architectural space of libraries implement a number of basic functions: spatial orientation, navigation, structuring of movement routes, creation of visual style and orientation in critical situations, which collectively makes modern library spaces convenient, flexible, interactive and easy to navigate.*

Key words: *Libraries, wayfinding, spatial orientation, design, interior.*

1. INTRODUCTION

Relevance: Orientation in public spaces is an important problem, especially for libraries because they now have a complex functional-spatial structure. The lack of a harmonious system of orientation in library spaces makes it difficult to recognize one's location, find the right direction, the necessary information resources, and orientation in critical situations. In this regard, it becomes expedient to analyze the literature and the world experience of designing a spatial orientation system to determine the functions, features of location and use, follow the evolution and determine options for influencing the interior design of modern libraries as a whole.

Purpose: Based on the analysis of the use of visual navigation systems of public spaces, to determine the peculiarities of the organization of these systems, the formation and development of visual search landmarks for the formation of the interior design concept of modern libraries.

Analysis of recent research and publications: Scientific research on the application of graphic design and visual communication in the architectural environments of public buildings has been conducted by many scientists. Such Ukrainian scientists as O. Chemakina, A. Rubtsov, V. Svirko, and O. Oliynyk were engaged in the study of visual communications by means of graphic design [1]. The problem of finding ways to libraries was dealt with by such foreign scientists as Gilbert Beck, Rui Li Alexander Klippel [2-3]. Carol R. Brown considered signage and direction in a library to be a major component of interior design [4]. The application of graphic design to facilitate spatial orientation and organization of movement routes has been reviewed and highlighted by Calori, C., Vanden-Eynden, D. and Hunter, S. [5-6]. A review of the above-mentioned scientific studies allows us to identify the main functions

of visual communications, track their development in the organization of the architectural environment, and determine their place and development in the architectural environment.

Main part: Navigation is especially important in complex multi-level structures, such as transport hubs, medical facilities, offices, educational institutions, shopping centers, libraries, etc. As the architectural environment becomes increasingly complex, people need visual cues and landmarks such as maps, directional signs and symbols to better navigate the space.

Simplicity and clarity are critical to the organization of visual information and are critical to effective navigation in any space. In a complex environment, such as libraries, the interior should minimize information overload and speed up the process of orientation in the library space, providing instant recognition of the main functions, finding the necessary material and means of obtaining it.

The structuring of space to provide navigation includes information pointers and sign systems that guide a person within the architectural environment and improve spatial orientation by establishing paths of movement. In interior design, orientation elements minimize text messages, while influencing users through the use of colors, symbols, and other non-textual cues. Replacing text components with icons and symbols is especially important to overcome language barriers. Complex systems of spatial orientation are increasingly integrated with technological solutions: mobile applications, media displays and other digital technologies, becoming more and more interactive.

Planning the sign system of a modern library involves determining and compiling a list of the necessary types of signs, as well as determining their locations. One of the aids for this is a virtual tour of the library using a computer model [7].

The purpose of planning is:

- identification of signs needed by users;
- orientation in the general plan of buildings;
- help in locating specific services, zones and rooms;
- placement of instructions and information necessary for the successful

operation of the library.

Planning should begin with an assessment or audit of existing signs. An analysis of existing signs helps determine where there is an excess of signs in one location, where signs are inconsistent, and where they are unattractive. It is also necessary to determine the signs that should be removed or that may need to be replaced.

A well-designed library should function with a minimal number of pointers. Interior elements should be legible, especially if the space is large or complex. The floor, walls, and furniture should emphasize and distinguish different functions and activities in the common space: their beginning and end. For example, a large bright wall behind the registration area or a floor with contrasting patterns are additional accents that attract the subscriber's attention from afar, without relying on signs. Since most libraries are open-plan, wall and ceiling decoration is becoming increasingly important in defining service areas.

Structural zones in a modern library are: registration and reservation zones, reading rooms, conference rooms, group work zones, computer rooms, laboratories, workshops, rooms for individual classes, study spaces and zones for people with disabilities, etc. All these areas should be equipped with appropriate indicators, which

are designed to provide a person with the necessary information. Depending on the purpose and location, these devices can be of different types, shapes, sizes and mounting methods.

According to the types of functions, information carriers are: orienting, indicative, recognition, informational and normative. Orientation indicators include information boards, floor plans indicating the user's current position. The main function of this category of graphical information elements is to help users determine their current location and the best route to reach their destination.

Signposts direct users to specific locations or services in a building. For example, signs with arrows pointing to a certain place and are direction indicators.

Landmarks identify or mark specific destinations or objects. These include, for example, signs on the end panels of book stacks; signs that identify individual rooms or service areas, such as lounges, auditoriums or information desks; marks that identify individual collections, such as genealogy, adult fiction, and periodicals.

There are also pointers that contain instructions; for example, how to operate equipment such as a copier. Informational or current signs provide information needed by library users, such as hours of operation, announcements of special programs, library services offered, and signs of equipment malfunctions.

Regulatory signs provide library users with information about rules or required procedures, and also alert users to emergency actions (for example, indicating which direction to take shelter in the event of an air raid or the nearest exit in the event of a fire). These signs do not necessarily have to be visible when using libraries, but in an emergency, they should attract more attention than other means of visual communication using light and sound.

It should be noted separately that currently the means of visual communication have gained significant development in interior design and with the help of digital technologies, they provide architectural spaces with interactivity, interact not only visually, but also sensorially and acoustically [8]. That is, the evolution of visual communication tools has come a long way from simple signs and pointers to interactive and intelligent spaces, where you can search for the road or information resources located in the library, even with the help of a special phone application. Designers Hwang Jong Gyu, Lee Sung-ho, and Choe Heun Guk [9] developed an effective orientation system using light beams that indicate the recommended direction of movement to safe places or exits in case of a critical situation on the surfaces of the premises (Fig. 1).

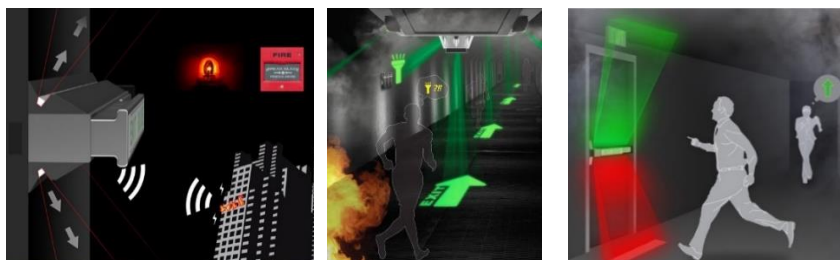


Figure 1: Application of innovative fire safety systems [9].

2. RESULTS

On the basis of the analyzed analogs of modern libraries, it is possible to distribute information carriers according to the method of location in the interior:

- suspended (to the ceiling or to a special structure);
- located on the walls;
- placed on furniture;
- in the form of separate structures;
- on the floor.

We also determined that visual communication systems have three types of influence on the interior design of modern libraries as a whole:

- style-forming (center-forming);
- tandem;
- auxiliary.

Style-forming is when visual systems set the design style for the entire architectural environment (Fig. 2), tandem - when visual orientation components are combined with interior design and harmoniously complement each other (Fig. 3), and auxiliary means of orientation in space do not affect the overall design of the architectural environment, do not attract of much attention, but noticeable enough to be used. This is especially important for libraries that are located in old buildings with historical value and antique furniture to preserve authenticity (Fig. 4).

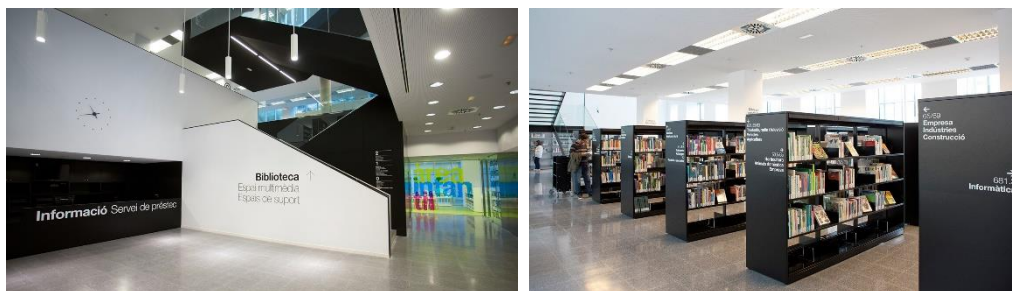


Figure 2: Castelldefels Central Library [10]



Figure 3: Calgary Central Library [11]



Figure 4: Boston Public Library [12]

3. CONCLUSIONS

Having considered the literature and world experience of spatial orientation system design, we note that complex navigation systems, which were considered in this article, are an important component of a well-designed library and should be developed as an integral part of the interior design of modern libraries. It was determined that visual communications in the architectural environments of libraries are designed to perform several basic functions: spatial orientation, navigation and structuring of movement routes, creation of visual style and orientation in critical situations. And technological innovations, which penetrate deeper and deeper into the field of interior design, evolve the visual and communicative spaces of architecture, giving them such characteristics as simplicity, convenience, flexibility and interactivity.

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