

INNOVATIVE OFFICE WORKPLACES

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Abstract

The paper aims to present the situation of the Polish creative sector offices environment against the background of European examples. The research material was developed on the basis of literature, survey and statistical research. Significant differences between Polish and foreign office buildings have been identified in the scope of workspace arrangements. The results of the research classify and systematise new functional zones for employees, who are expected to shape the future vision of our world.

Keywords: Military Architectural; Forts; Poznań; Revitalisation; Historic structures.

1. INTRODUCTION

Today's environment is undeniably the result of the efforts of architects, designers and engineers. Buildings erected for the needs of urbanization and satisfaction of functional demands create structures that decide upon present and future living conditions. The quality of life is determined by the multifaceted stages which aim at thoughtful and responsible architectural and planning decisions. One of them is sustainable design. The effect of such a way of creating building structures is, among other things, to satisfy not only contemporary utility needs, but also those that will occur in the future [1]. The implementation of activities that condition the fulfilment of functional requirements of future users is therefore closely related to updating the knowledge of a given design discipline and predicting the directions in which a given discipline will evolve. The spatial aspect of all decisions is discussed in relation to the present and future is the workplace. It is in this space that the processes that determine the quality and physical conditions of the future and contemporary world take place. It is also one of the places, where decisions are taken and

the rules of sustainable development in the economic, social and political fields.

The subject matter of sustainable development is very broad and in its idea is based on the research of scientific, professional and political circles. Hence, the programme for the implementation of its principles evolves in parallel in many aspects. One of them is to ground construction investments and thus architectural activities on ideas aiming at achieving the objectives of the sustainable development strategy. The Division for Sustainable Development Goals (DSDG) is one of the organisations responsible for setting the specific objectives of this strategy and for verifying achievements. On the official website of the organization there are available world market reports on sustainable development applications through 2018 in selected categories. One category concerns economic growth, productive employment and decent work for all (Goal 8). The verification of the application of the principles of the described strategy concerns, inter alia, the growth of gross domestic product per capita, the increase in labour productivity and the decrease in the global unemployment rate [2]. The report also

addresses the need for more progress in the employment of young people and the promotion of a safe working environment [3]. This objective also applies to the physical and therefore architectural working environment. By programming, designing and consequently building an appropriate working environment, architects are able to implement sustainable development strategies.

2. AIM OF THE RESEARCH

In the era of sustainable design, the awareness of the importance of the internal environment and the comfort of use of a given architectural object has been deepened [4]. This progress is particularly noticeable in buildings for offices. This awareness is raised through the recognition by the relevant experts locating innovative office spaces and the disseminating outstanding projects and developments on professional platforms. This is why it is important to include remarkable quality of solutions also in the Polish workplace environment. The results of research carried out on Polish office buildings between 2017 and 2019 illustrate the significant differences within this specific architectural discipline. Differences in the quality of the working environment are caused, among other things, by the absorption of new design trends to a greater or lesser degree. The lack of extensive guidelines laid down by legal standards and technical conditions has led to the enforcement of only those indispensable provisions that guarantee the development of office architecture.

The system of office work has undoubtedly undergone a major transformation. New types and environments of work in offices have emerged. Digital and technological support has streamlined employee processes and changed functional and organisational needs in the context of architectural design. The employee, his development and relations with other employees became particularly important. This became noticeable in many modern office buildings dominating on the international market.

The aim of the research is to collect a database on the currently emerging additional space for employees within existing office workplaces. An important element of the research process is to follow the specificity of locating these additional functions and their role in building a success of a company. This will enable Polish employers to shape a sustainable working environment by comparing obtained typology of additional functions with the need of their employees. Collected data can be a starting point for building a creative workplace by

adjusting selected functions according to the needs, abilities and potential of a company.

3. RESEARCH METHODOLOGY

Literature research was employed to carry out the research on foreign outstanding examples of office architecture. Collection of a database of relevant publications and articles on modern offices helped to outline the contemporary trends prevailing in the design of employee spaces. Walkthrough research [5] and interviews conducted with Polish employees in their workplaces allowed to identify main deficiencies in the subject matter under study. Observation and analytical methods have made it possible to verify the relevant factors and to create a typology of emerging additional space for employees. Inventory, measurement and statistical research made it possible to specify the factors generating possible location of additional functions for employees and outlined their architectural profile. The research has been made since January 2017.

4. RESEARCH RESULTS

The paper presents selected and detected in the process of research additional spaces for employees created in office workplaces. Catalogued examples of Polish architectural projects, whose buildings contain an extensive functional program for their employees, are presented.



Figure 1.
Euvic Company's game room. The photo taken by the author in 2017

Euvic Company is located in Gliwice and deals with computer programming, application development and maintenance of IT systems. It also provides its services on the foreign market. Headquarters are located in a building of an area of about 1800 sqm consisting a workplace for nearly 200 people. In the entrance area there is a reception desk, which aims to improve the work of employees and customers. Workstations are located in rooms for several people connected by means of a corridor. On each floor there is a social room, which is also a place to meet and eat together. The company uses the services of an external company dealing with the maintenance of the office. Therefore, maintenance rooms are limited to warehouses for equipment and basic cleaning products. The building also houses conference rooms supporting the processes of group work, integration and interaction between employees. On the lowest floor of the building, the main dining area combined with a games room is located (Fig. 1.). It is a special room designed to support and develop positive relations between employees and encourage their creativity. At the same time it eliminates symptoms of stress and fatigue. The game room is designed as an open space with tables, comfortable seats and a sofa, video game devices and a table with table football. The room is suitable for presentations with the use of a projector. The research revealed that additional space for employees occupies about 16% of the usable area of the entire facility. The office recreational program was realized in a single, main room, consisting a separate space in the building. In this way, additional activity zones do not interfere with the workspace and allow for any architectural or functional modification. Employees can use additional functions without disturbing the work rhythm of the other people.

Locating relaxation spaces for employees who are not working is organized in many ways. One of such facilities is G. EN. Gaz Energia distributes gas, which is located in the Wielkopolskie Voivodeship in Tarnowo Podgórze. The company employs about several dozen employees in its office building. The work rooms are designed for several people and are also connected by means of a corridor. In the central part of the building on the first floor there is a multimedia conference room. The room was designed with the possibility to divide it into two smaller parts in order to adapt it to the changing needs. On the ground floor there is a reception. This room has been separated by a glass partition for safety purposes. According to the employees, this makes it easier to

protect personal data and to supervise a large number of visiting customers. In the entrance area there is also a smaller room for children. This enables employed parents to carry out basic tasks in the company as well as ensuring the safe stay of their children in case of organizational emergencies. The lobby also hosts exhibitions of works by children from local educational institutions (Fig. 2.).



Figure 2.
Exhibition of children's work in G.EN. Gaz Energia. The photo taken by the author in 2017

According to an environmental interview, the company's employees would like to have designated some space for plant breeding. At present, many of them have potted plants near their workplaces. G. EN. is located exceptionally fortunately in terms of landscape. The building is surrounded by field meadows and high greenery. The location and needs of the employees may form the basis for extending the company's functional program with additional area of open greenery. As a result of the survey tests, it was found that additional functions for employees constitute about 12% of the current usable area of the building.

Another object of research is Future Processing located in Gliwice. The object is a place of work for computer programmers and has a strongly developed functional program. The company employs about 500 people. The company is located in four buildings and the construction of the next is planned. The work space was also organized in several multi-person rooms connected by accessible from a communica-

tion corridor. In addition, the building houses smaller and larger rooms for group meetings and conferences. Additional devices supporting work processes have been located in communication zones. Due to the unique nature of work seats and monitors were placed in corridors for digital communication with foreign and local customers. In these zones there are also chess tables, darts and table football. The relax spaces are not in a separate room, but seamlessly connected to the work rooms. In addition to the social and kitchen areas, there is a restaurant on the premises. It is connected with the kitchen for the employees using their own food products, who have the possibility of eating with people using restaurant services. This is one of the ways to support interaction between the teams. In addition to catering facilities, the building has a recreation area. It includes a gymnasium (Fig. 3.), massage rooms and a spa area. Employees have the possibility to use these rooms during working hours. The company supports the development of its employees. In the building there is a library supported by an application, which makes it easier to supervise borrowed literature books and magazines. In order to support the creativity of the employees, a zone for recording animations and short films as well as taking photos has been made available at the main facility. Employees of the company can also use a video game room. Future Processing provided the kindergarten for the employees' children, which is a part of one of the buildings. It is planned for about 25 children and is equipped with an attractive playground.



Figure 3.
Gymnasium in Future Processing Company. The photo taken by the author in 2017

Additional space dedicated to supporting the work processes of the employees in Future Processing constitutes about 13% of the usable area of one office buildings constituting a part of the group development of the company. The building object containing work rooms was included in the measurement tests. The recreational facility is a separate functional part contained in an autonomous building. However, it is undeniably an attractive offer for people working in the company. The location of this type of object is conditioned not only by economic considerations, but also by appropriate plot area parameters.

5. EXAMPLES OF FOREIGN OFFERS OF FUNCTIONAL REFERENCE OFFICE BUILDINGS

A dozen objects of foreign companies characterized by care for the working environment of their employees were subjected to literature research and measurement. The article presents the results of research on functional programs of office buildings, which have been appreciated by the architectural community and their architecture is distributed and recommended. As a result of the research, there were quite significant differences in the level of advancement of the additional functional offer for office workers. The aforementioned differences between the Polish and foreign architectural work environment are noticeable not only on the visual level, but also in architectural plans of selected objects.

Innovativeness introduced into office buildings are not only limited to offering additional rooms to employees. In some offices, employees have the opportunity to carry out professional tasks and bring a dog to the place of work. An example of such a facility is the office of Kurgo Products [6]. One of the reasons for being able to work with one's own pet may be the nature of the company that trades in dog supplies and accessories. The working space is suitable for employees and their animals. Dogs are also periodically examined for eligibility to be at work. Contact with the animal at work helps to reduce stress and improve contacts between employees [7]. Such a specific work environment requires not only appropriate spatial conditions but also consultation with all employees of a given company.

Fatigue at work, resulting in a reduction in concentration and involvement in professional duties, is often a factor negatively influencing the development and prosperity of a given company. In order to support the employees and adapt to their needs, it was

decided to take actions which are expected to result in the success of the company and its development in a given industry. Rooms and sleeping areas are the solution to regenerate employees during sudden fatigue and sleepiness during the working day. The idea is based on the use of short, 20-minute power naps, which improve concentration and regeneration of the body [8]. This function in architectural space can be carried out in many ways. Power naps can take place in special devices such as nap pods, which are used, among others, by Zappos. In addition to these devices, the company also provides employees with a nap room [9]. Nap rooms are also used by companies such as Nike, Google, Hike Messenger and many others. Employers report another major advantage of this type of space in office areas. These rooms are used by employees travelling on business and enjoying regeneration during short sleep in order to eliminate the effects of changing time zone and profes-

sional obligations implemented directly after the journey.

Locating and using elements of greenery and water in architecture is a strictly sustainable approach. This is done not only with the use of external areas adjacent to the building, but also inside the building or on the roof surface. An interesting example of the use of biologically active areas was implemented in office buildings of Timberland building. The company provides the employees with a garden, where they can grow fruit and vegetables under a special programme related to the food bank [10]. Such spaces not only serve the purpose of visually increasing the effect of the working environment, but can also be of benefit to the local community. A similar strategy was employed by the law firm Olswang LLP. On the roof gardens of the building there were beehives intended for bee-keeping in the city [11]. Apart from their ability to produce valuable honey, these insects can also

Table 1.
Comparison of various functions and equipment of selected Polish and foreign offices

Polish offices			Offices from other countries		
name	function	existing equipment	name	function	existing equipment
Euvic	social	tables, chairs	Google Inc. (Zurich)	social	Tables, sofas, modern designed seats, aquariums
	recreational	Playstation, Tv, a projector, tables, sofas, chairs, video games, a table football		Chill out / relaxation	Ragtag sofas and seats, nap rooms, toys for children, plants, individual rooms
G. EN. Gaz Energia	Education, social	A projector and screen, a conference table, exhibitions		recreational	A table football, darts, playing machines, a billiards table, massage rooms
Future Processing	Social, interaction	Chess tables, darts, a table football, a kindergarten		educational	A library with books and magazines, multimedia devices, projectors and screens, conference tables
	recreational	Gym devices, massage table, spa room, a video game room	Pandora Media (New York)	social	Sofas, tables, chairs
	educational	A library with books and magazines, a device for film recording		Chill out/ relaxation	Ragtag sofas and seats, individual rooms
				recreational	A multifunctional scene
				educational	multimedia devices, projectors and screens, conference tables
summary	Total average number of functions: 6 Total number of equipment by type: 22 Number of functions per company: 2 Number of equipment per company: 7		summary	Total average number of functions: 8 Total number of equipment by type: 30 Number of functions per company: 4 Number of equipment per company: 15	

detect environmental toxification [12]. The positive influence of greenery and water elements was also appreciated by Google in Zurich. In addition to the internal jungle, the building also houses a relaxation room with aquariums [13]. The urban jungle is an element of additional space for employees, which is a part of the design of themed rooms in office buildings. It is an interesting, diversified space which creates not only unrepeatable space of the office but also has a positive impact on work processes by diversifying physical environment for the employees. Designing this type of rooms gives many possibilities of interpretation. An example is the corridor at Epic Systems Corporations Verona, stylized on the New York Metro [14]. This type of room can be freely used not only in communication areas, but also in working spaces. Employees' rooms are often equipped with multimedia devices such as screens, monitors and projectors. They are used for conferences and multimedia presentations. Some companies have decided to go one step further. They locate cinema halls in their facilities. One such company is the tobacco company Philip Morris. However, the decision to have this type of room requires meeting a number of technical conditions related to, among other things, maintaining the acoustic comfort of employees who do not use the auditorium at any given time. A cinema room can be used in many ways. It is possible not only to organize training courses and conferences, but also to initiate joint viewing of matches or other sporting events. This is a measure to build a company's brand as a community of compatible and supportive employees who care about cooperation and proper professional relations. Another solution to have high designed multimedia space is projecting a multifunctional scene which can realized projections and movies screening. A multifunctional scene is used by Pandora Media Company.

The following table (Table 1) presents various recreational areas and activities provided by the forms from the creative sector of the world economies.

6. SUMMARY

Contemporary Polish design standards of workspace in the creative sector offices are undergoing a radical transformation. Bearing in mind the criterion of meeting the needs of the users of the building it is necessary to identify a standard of functional needs and systematics of the work performed. Commonly diagnosed typologies of offices [15] may constitute the foundation for the process of programming and

designing office buildings, which undeniably should be developed in terms of the profile of the profession. The expectations of entrepreneurs towards present and future office workers require openness and creation of new solutions, with an ultimate goal to provide a success of the company and strengthening its position on the international market. The quality of the working environment depends on the responsibility of designers and therefore they should concentrate on achieving the best possible results using architectural tools. To a large extent, it is up to the designers of buildings whether the differences between Polish and foreign creative sector working environment will be indistinguishable in such a way as Polish office buildings become a powerful platform for international cooperation. In order to design and to build sustainable architectural structures, it is necessary to open up to new design trends, to assimilate them and to develop them in order to improve the quality of both work and future life.

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