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Workspace environment management: recent challenges and future trends for organizational psychology

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Abstract. Workspace is continuously changing from traditional environment to the office culture presupposing spatial arrangements for various nooks and crevices for concentration, relaxation, breaks, games, or team gatherings. Such changes are aimed at increasing employees' well-being and psychological safety. The way employees perceive working environment lead to effective or ineffective adaptation to job requirements and work efficiency. This process may be mediated by cultural and individual differences that organizational and business psychologists account for in dealing with organizational change. An adjustment to further research directions and study methodologies with a proper interdisciplinary holistic approach may unlock previously unseen correlations and phenomena with the theoretical and practical design benefits, affecting not only the sphere of the workplace physical environments but many other areas of human inhabitation and well-being. Surrounding environment, physical body and personal qualities are thoroughly intertwined and cannot be considered totally independent from each other, as they all equally contribute to spatial and experiential apprehension. Accounting for such factors may help organizational psychologists improve the environment and everyday settings, enhance the potential of individuals actively cope with and shape environments.

Keywords: organizational psychology, workspace, environment, business psychology.

Introduction

Organizational psychologists deal with psychological and business problems that appear in real-life environments, but there has not been extensive research on the effects of physical environment on behavior in the multidisciplinary studies (Wohlwill, 2009). The research on environmental problems refer to the human perception of the current environment, management of the surrounding and space and interactions with the environment and nature (Gifford, 2008). As a result, psychologists improve the environment and everyday settings, enhance the potential of individuals actively cope with and shape environments. The more elaborated interaction and management of the environment leads to higher well-being and more efficient organizational behavior (Bocharov, Danilov, 2018).

Environmental perception is an important scale of analysis in organizational psychology. The way employees perceive working environment led to effective or ineffective adaptation to

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job requirements and work efficiency. This process may be mediated by cultural and individual differences that organizational and business psychologists account for in dealing with organizational change. One of the important characteristics of the interaction between environment and person is personal space. Personal space is a measure of comfort for a person. In different cultures personal space may vary. Also, optimal personal space may be calculated considering the task of interaction: discussion and cooperation tasks might need less personal space and negotiations, or formal events may presuppose larger personal space. The design of the space may lead to well organized people flows or high density. Crowd is an environmental characteristic that may affect on personal well-being via affective or behavioral influence (Montano, Adamopoulos, 1984).

Environmental factors determine employee's productivity and satisfaction at work that includes both physical environment and cultural factors (Ivanova et al., 2019). Such factors affect work adjustment, performance, feelings, social behavior, level of stress at work. Changes in physical environment and corporate culture determine employee behavior (Klimova et al., 2019). By contrary the lack of correspondence between personal characteristics and environment lead to negative psychological, physiological, and behavioral outcomes (Edwards, Cooper, 2013).

Workplace environment

What constitutes a typical office workplace in 2021? One is likely to reply that it is probably a laptop in the living room, or some other device on a home couch. One can also mention a park bench as a place for making important phone calls and a kitchen table for team teleconferencing sessions. The work environments, which are already taken for granted in 2021 would be almost unthinkable for much of the traditional office workforce just over a decade ago. The current remote work lifestyle is not always beneficial for one's well-being and productivity, but it also brings many positive outcomes and conveniences (Markovitz, 2021).

Due to the pandemic requirements in 2020, many office-based companies had to sharply rethink their operation models, leaving away typical office culture. While such transitions may have been initially perceived with a high level of uncertainty and scepticism, yet, they have been largely implemented without overall major detrimental effects. After such positive transitional precedents, many major companies and world economic planners are now discussing various benefits to profitability and successful business operation models of hybrid approaches to working practices from within and outside of traditional office spaces in the post-pandemic future (Lister, 2021).

The transition to new remote and hybrid office work scenarios is not a completely new phenomenon, but rather a continuation of the ongoing processes, which are now taking an increasingly accelerating pace. The plentiful availability of personal computing devices, laptops, smartphones, tablets, and other gadgets with suitable software packages, as well as highly developed infrastructure of fast internet connectivity, both wired and mobile, along with the rapid digitalization of corporate business practices in various industries had led to the growing number of new work lifestyle precedents. As result, by 2005 work from home has already been taking a strong ground (Schlosser, 2006).

The increasing interest among employers, employees, and academics in the fields of occupational mental health studies and more in-depth understanding of human behavioural and cognitive performances within social and physical environments have led to creation of new workflows, organisational structures, and workspace design visions.

Transformation of the office culture

The rapid transformation of the workspace environment witnessed during mid-2000's, and enhanced by the 2020-2021 pandemic is, perhaps, the most drastic and noticeable change in the office culture since the 19th century.

Traditionally, offices are not very different from school or other educational spaces. Typically, they constitute a rectangular room with repetitive rows of desks for general staff, some dedicated desks or separate rooms for managers and particular specialists, as well as other support and amenity spaces, such as meeting rooms, canteens, post & print rooms, etc., depending on the business specialty and operational needs.

They come in different styles, sizes and configurations, but inherently still remain the same for over a century. Almost every day multiple people travel from home to work to congregate within office spaces for considerable amount of daytime to perform various tasks required by the companies. During most of the 20th century there were two stable status quo places in a life of a generic office worker: 'home' and 'work' (Casey, 1993). 'Home', in Freudian terms, was a safe relaxing place, the first longing, the mother's womb (Freud, 1930). 'Work' was the second place, offering exchange of skills for money, along with career growth and personal fulfilment.

All other places between home and work, including shops, restaurants, gas stations, motorways, train stations, airports, hotels, etc. were seen as 'non-places' and were conceived as of little importance in the lives of typical office workers (Auge, 1995). However, towards 1990's it was acknowledged that these various places outside of home and work were not so 'insignificant', as they have offered friendly grounds for congregation and extensive exchange of ideas, with potential economic and political implications (Oldenburg, 1989). The scholars started to widen the concept of space of work by extending their definition not only to the actual built units of businesses or offices, but also acknowledging the wider networks which link these units (Lefebvre, 1991).

This led to creation of the new definition of the place occupied by the office workers — the 'third place'. Originally, the main 'third places' included cafes, parks, clubs, and other public amenities. By 2009 the definition of the 'third place' grew to include almost everything outside home and work, including streets, neighbour's gardens, swimming pools, schools, universities, and other not always strictly public facilities (Jeffres et al., 2009). By 2019 the definition has extended even further to become 'fourth places', which combine of a blurred hybrid of home spaces, such as coworking, coliving and comingling, beyond the traditional 'third place' classification (Morisson, 2019).

By 2020 we have gained a new 'fifth place', which blends together previous places with an added virtual reality pandemic twist, stirred and shaken at the same time (Abd, 2020). By the end of the 20th century, it became clear that more and more people do their work and other business activities in various 'third places' (Duffy, 1997), with the work itself becoming more fluid in nature (Donking, 2009). Some scholars highlighted various benefits of such spaces beyond mere political and economic implications and highlighted their effects on creating opportunities for arousal of worker's emotions, identity, and meaning (Dale et al., 2008; Sferrazzo, 2020). Such transformations of work practices were also evident through changing approaches to office design practices. For example, a typical open-plan office is a prevailing spatial layout type for medium to large size companies and remains popular since the 19th century to this day. Effectively, this constitutes a large rectangular open space with multiple rows of linear desks or cubicles.

Such arrangement has many benefits. It saves money, since there is no need for building and removing multiple walls, saves time for office relocations and reorganisations, and offers flexibility for arranging various groups and departments, independent of physical boundaries. Many prominent

design- and research-lead architects, such as Foster + Partners at their Riverside Studio in London (built in 1990), have embraced the open-plan 'workbenches' for most of their own operations.

Yet, no matter how well-designed, the conventional open-plan office remains a typical place of 'work' away from 'home'. It is traditional, functional, proper, predictable. It is the space of Freudian super-ego or Berne's 'parent', where the 'adults' perform their well-considerate mature actions, supposedly.

With the advents in mobile technology and growing prominence of 'third places' as alternatives to traditional workspaces, some cash-rich companies which required certain level of creativity from their employees and wanted to position themselves as beacons of ground-breaking thinking, started to conceive new types of corporate environments.

For example, in 2015 Facebook has moved into the new HQ designed by Frank Gehry in Palo Alto, California. While the office itself was considered the "largest open plan in the world" (Fearson, 2015), the environment within was strikingly different from typical repetitive arrays of tables and workstations. Instead, the design has merged traditional office space together with comfortable and relaxing qualities of 'third places', resulting in a wider material palette, more complex spatial arrangements, introduction of various nooks and crevices for concentration, relaxation, breaks, games, or team gatherings. The new spaces encourage the worker's inner 'child' to get loose in the name of unleashing creativity, devising innovative products and solutions.

The ideas of breaking up the repetitive open-plan arrangements to provide more sophisticated and inspiring work environments are not entirely new, with the earlier attempts dating back to the 1950's and 1960's. In particular, the pioneering approaches were tried in the projects of 'Office Landscape' in Germany and in 'Action Office' furniture designs in the US. Nevertheless, the corporate desire to cram as many people as possible in the available floor area took over the provision of high-quality work environments at the time.

However, during the digital era at the end of the 20th century and particularly towards 2020's, the growth of remote work, along with the reduction of permanent in-office staff and consequent decrease of rental costs and other overheads started to make stronger commercial sense for many companies, allowing them to achieve higher operational savings and concentrate on the quality of spaces rather than the number of occupied seats (Lister, 2021).

The strive for high quality work environments was not merely justified by the availability of freed-up funds but also by the ongoing research and development of new operational practices, when the offices started to be considered in the terms of 'work processes' and 'work practices' rather than the plain table layouts and cubicle arrangements (Lohr, 1997). Such technocratic, yet experiential approaches to the office culture and design practices were in parallel accompanied by the growing academic interest in this field.

Academic interest

Back in the 1930's, S. Freud wrote that civilized people require beautiful, clean and orderly environments. The beauty itself, like the window flower pots, may have no practical value and even be completely 'useless', yet, it is a very special and non-trivial matter. Civilized people admire natural beauty and do their best to reach beauty in the objects [and environments] they create (Freud, 1930). Yet, by the mid-20th century, most generic places of work were regarded from rather functional and pragmatic perspective, as opposed to the places of beauty. Subsequently, many issues related to the well-being of building occupiers, were considered from primarily technologically materialistic angle.

For example, by early 1970's the open-plan offices have gained significant prominence and popularity (Samani, 2020). Yet, already by mid-70's it became evident that many occupiers of the new office buildings are experiencing new detrimental health effects, often including eye, and mucous membrane irritation, dry skin, and other symptoms, ranging from mild to sometimes significant cases. It was known as the 'Sick Building Syndrome' and soon it became evident that the poor air quality in enclosed mechanically ventilated buildings can cause various negative health effects (Kreiss, 1990). In naturally ventilated spaces such effects were less occurring. Further it was also revealed that various building materials such as wall insulation, asbestos, furniture, adhesives, and other toxic substances can contribute to the well-being of the occupiers. It is ironic that while at the time it was envisioned that the air-conditioned offices were envisioned to provide the fully controlled environment for the best well-being, in effect, the technological and material drawbacks have backfired drastically (Finnegan et al., 1984).

Today, the lessons have been learned. The issues of materials safety and air quality are now addressed differently. For example, referring to the new Apple HQ in Cupertino, California, the company environmental director Lisa Jackson said that "75% of the year we won't need air-conditioning or heating. We'll have natural ventilation," (Wainwright, 2013) not only such approach provides substantial operational savings but also ensures better well-being of the building users.

Yet, the studies of questions related to the effects of physical environments on the employee's mental well-being, occupational stress, work satisfaction, and personal productivity, have started to emerge in bigger numbers only towards the 1990's, particularly, after various studies indicated growing numbers of poor job performance, absenteeism, high turnover, and the rising number of insurance mental health claims (Heerwagen et al., 1995). In the old days, it was widely believed that people can simply adjust to any working environment, and their inability to do so could be considered a personal weakness (Heerwagen et al., 1995). Over time such beliefs started to get challenged.

Some studies of interrelationships between particular spatial conditions and human preferences were already being conducted. For example, J. C. Baird has revealed that the high ceiling height is the preferred spatial condition for all activity types (Baird et al., 1978). This observation was reconfirmed by more recent studies, concluding that open rooms with higher ceilings were likely to be judged as more beautiful (Vartanian, 2015). Such effects might be influenced by perception and cognitive information processing which are in focus within the person-environment fit theory (Edwards, Caplan, Harrison, 1998).

Further research started to examine more complex spatial conditions and environmental factors with initial suggestions that "managers and workers need greater control over physical factors" to better support productivity and work quality (Carnevale, 1992, p. 423). By 1996 scholar T. M. Amabile recommended that the managers should pay attention to the physical environments for the employees they hire (Amabile, 1996), exploring influences of the work environment on individual creativity (Amabile, 1997).

D. Stokos and his team provided links between environmental distractions and employees' levels of creativity, job satisfaction, and personal stress (Stokos et al., 2002). By 2002 it became evident that companies strive to provide satisfying work environment (Ree, 2002). The early 2000's were characterised by transition from technocratic to artistic and moral research (Taylor e al., 2005), studies of 'organisational aesthetics' and calls for more artistic/aesthetic research methodologies (Warren, 2008). From 2010's onwards, more in-depth questions of designing the day-to-day work environments to foster creativity were explored, with examination and establishment of connections between creativity and the work environments in terms of physical surroundings of immediate workplace and surrounding building (Dul et al., 2011). Questions on how the office design features can affect the processes of sharing and creation have been also explored (Sailer, 2011).

Towards the mid-2010's various research findings started to lead to some applicable office design principles. For example, N. Clifton with colleagues concluded that contemporary office design should go beyond conventional open-plan spaces. New corporate culture focused on collaborative work should strive to create vibrant and diverse office environments to enhance community-building and idea sharing. Application of co-working spaces in company environments may be highly beneficial. Companies need to consider more flexible approach to physical workplaces and cater spaces for different types of activities (collaboration, concentration, thinking, etc.) (Clifton et al., 2014). E. Hoff and N. Öberg proposed an environmental support model for creative workplaces in a three-fold system of supports: functional (adequate lighting, etc.), psychological (private or communal spaces) and inspirational (imaginative interior design, etc.), strongly highlighting the need for adjustable spaces that can be transformed depending on the required work (Hoff, Öberg, 2014).

Remarkably, such design recommendations can be easily identified in Gehry's 2015 Facebook HQ and many other subsequent office design projects. Yet, while there was an overall academic consensus that a pleasant work environment is essential for employee's productivity and creativity, there was no conclusive agreement on the applicable empirical data and research methodologies (Heerwagen, 1995; Warren, 2008; Meinel et al., 2017; Thoring, 2019; De Molli, 2020; Lin, 2020). It was noted that the overall research is still quite abstracted (De Molli, 2019), and most of the empirical test's results are contradictory (Meinel et al., 2017). There are many psychological and physical design and research variables, so now there are no golden rules which can be applied for studying the effects of all types of work environments (Lin, 2020).

Further research

While during the past three decades the research into the environmental effects on humans has witnessed considerable progress, it is evident that there is still much work to be undertaken to bring closer any meaningful conclusions and advice for design practices. It is imperative to develop new methodologies and draw conclusions of environmental effects not only from interviews, photo interpretations, self-assessments, and expert advice, as is has been mainly done recently (Meinel et al., 2017), but also from consideration of personal psychological factors, such as, for example, a study by N. Bos with colleagues, which concluded that a move to an open plan office was more appreciated by males and less by introverts (Bos et al., 2017).

Despite calls for holistic interdisciplinary approaches to address questions of the physical environment (Heerwagen, 1995; Thoring et al., 2019; EDRA), much of the current research is still conducted in individual silos. Even with suggestions for more research into artistry (Taylor et al., 2005; Warren, 2008), and acknowledgement that wider aesthetics atmosphere plays roles in the workplace design (De Molli, 2019), most of the current methodologies address the physical environments by breaking them up to smaller constituting parts and individual elements. While such approaches have their merits, they still do not address holistic design qualities, such as spatial gestalt, overall atmosphere mood, feeling, or 'energy' of the space.

Modern researchers in the cognitive ergonomics acknowledge that while there is much emphasis in the field on study of specialist environments such as airplanes and nuclear plants, there is an obvious lack of research dealing with the well-being at typical office workplaces, which affect majority of modern workforce (Kalakoski, 2020).

In the fields of occupational ergonomics and interfaces with robots and other futuristic technologies, there is a certain level of acknowledgement that aesthetically pleasing and comfortable multi-sensory environments have direct effects on human bodies, nevertheless, the research remains in a pragmatic realm of functionalism and efficiencies. Human's involvement in the processes is seen

as mere 'human factors' that need to be dealt with safely (Gualteri, 2021). The recent Wellcome Trust report on 'Understanding what works for workplace mental health', quoted by the World Economic Forum, only deals with organisational and regulatory aspects of the work environments, without any mention, whatsoever, of any possible physical qualitative environmental effects (Newman, 2021).

In 1995 Judith Heerwagen has suggested that salutogenic environments can be achieved only through interdisciplinary holistic work of various not always related parties, and drew a striking analogy to illustrate her point: "The creation of health promoting environments demands a design process that is truly interdisciplinary and ecological in its orientation. An ecological approach is holistic and looks at interconnections among events, procedures, people, and places. A building is, after all, a habitat for people. Like natural habitats, the building habitat can affect its occupants in many ways, some of which are obvious (i.e., loud noises impair hearing), while other effects are more subtle and inconspicuous. Because the choice of a habitat is critical to well-being, most organisms devote considerable effort to finding or creating the right place to eat, live, and mate. It is ironic that humans do a better job of designing optimal habitats for zoo animals than for other humans. Zoo design is a collaborative effort of biologists, landscape designers, architects, psychologists, and construction specialists whose primary concern is to identify the relationship between well-being and environment for a given species, and to design a habitat with these goals in mind. The choice of building materials, vegetation, lighting, and placement of sleeping quarters all are done with careful attention to the animal's needs for foraging, resting, socializing, and mating. Variability in textures, spaces, heights; and the addition of manipulables and artifacts are all components of an enriched environment that is increasingly regarded as critical to psychological well-being. By placing animals in more natural habitats rather than in cages, zoos are also recognizing the importance of behavioral control and choice. Within the larger spaces, animals can choose when to eat, where to go, or whether to be alone or with others-a choice that was greatly restricted in traditional caged settings. A casual walk through many contemporary work environments, with their long monochromatic rows of cubicles where workers are expected to stay for 40 or more hours a week, makes one wonder which species is really in a zoo" (Heerwagen et al., 1995, pp. 465–466).

An adjustment to further research directions and study methodologies with a proper interdisciplinary holistic approach may unlock previously unseen correlations and phenomena with the theoretical and practical design benefits, affecting not only the sphere of the workplace physical environments but many other areas of human inhabitation and well-being. To create a framework for a more holistic research approach in order to assess the effects of spatial environments on humans, the following three-fold analysis system is proposed for implementation and further development.

Surrounding environment

Surrounding environment includes understanding of the full spectrum of stimuli that affect person's mind and body within a space, including: Physical environment — seasons of the year, time of the day, weather, natural environment settings, cities, streets, infrastructure, cars, buildings, materials, interiors, furniture, objects, colours, lighting, temperature, odours, sounds, noises, humidity, air quality, chemical and biological hazards, electro-magnetic emissions, radiation, biting mosquitoes, and all other physical factors. Virtual and information environment — contents of personal digital gadgets, devices and displays in the surrounding space, including phones, watches, tablets, monitors, TV's, clocks, advertisement boards, signage, bus schedules, road signs, graffiti, ornaments, symbols, and other types. Social environment — absence or presence of people, number of people, their age, gender, outfits, mood, facial and body expressions, levels of stress or happiness, anxiety or tranquillity, etc. Physical body includes precise understanding of the research subjects'

physical body abilities and limitations, such as age, gender, height, weight, level of fitness, health issues, etc.

For example, stairs may hint caution to someone elderly with knee problems, yet the same stairs can be perceived uplifting and exciting by a young sporty individual; a confined public bathroom may feel comfortable for an average-height individual, while being an awkward proposition for a very tall person.

Personal qualities

Understanding of individual's psychological qualities and other personal characteristics, such as neuroticism, sociability, impulsivity, phobias, state of mental health, personal activities, interests, occupation, education, creativity, lifestyle, preferences in music, films, art, personal life experiences, exposure to various types of environments, cuisine preferences, etc.

For example, a person from an above-average social background with frequent exposure to high-quality design environments may perceive some spaces as undesirable and below certain standard, while for a person from a different social or cultural background the same environment may be more than acceptable; a boardroom or director's office may give shivers to some office employees, while being a completely neutral and enjoyable space for the night cleaning staff, or the director. A dining table for big crowd within a wide open space may be favoured by an extraverted claustrophobe, while it may be a nightmare for an introverted agoraphobe.

Certain phenomena, such as atmosphere, feeling or 'energy' of the space may not even be described through words or analysis of its constituent parts. For example, when choosing a preferred photograph of a room, often, the sense of space is formed almost instantly on an intuitive level, and the individual may not possess the required skills or vocabulary to convey the triggered feeling or emotion. How easy is it for a regular person to describe what may be attractive in the smells of roses or other flowers? Architectural qualities such as tectonics, proportions, rhythms, etc. may not be easily described or even acknowledged, yet, they form a significant part of spatial experience and need to be considered.

All three of the above research analysis categories of Surrounding environment, Physical body and Personal qualities are thoroughly intertwined and cannot be considered totally independent from each other, as they all equally contribute to spatial and experiential apprehension. Two different people may perceive the same space differently or in the same way. Therefore, the research methods need to include not only the quantitative data where the test subjects act as mere statistical entities, nor it is sufficient to draw conclusions from narratives of personal observations without consideration of psychological and physiological qualities of everyone within the physical environment in its full form. Only then we can take a closer step towards a more holistic research vision, draw correlations and make conclusions based on the empirical evidence.

Challenges for organizational and business psychologists

Changing personal environment in a way to enhance efficiency and well-being becomes more and more relevant and necessary goal for organizational and business psychologists. One direction of research and practice refer to home decoration and design. Home environment affects socioemotional health and well-being and influence people behaviour and lifestyle (Evans et al., 2000). Home environment may include not only floor plan, architecture style, colors etc., but also settings that stimulate various kinds of activities: play, read, rest, getting together and so on. It common that people arrange their environment according to their values, cultural preferences,

social class (Bonnes at al., 1987). Traditional ways of organizing physical environment at home may not account for changes in personal development and form restrictions for further self-realization. It may be supposed that problems, which become vivid in business relations have their causes in personal lifestyle and home environment. It may be assumed that according to holistic approach towards human well-being and efficiency at work researchers and practitioners will have to account various environments which affects personal lifestyles and behaviour. The research of correlations between individual values, personal characteristics, and active construction of home environment as well as development of practices aimed at helping people to better adjust their needs and preferences with physical environment might be a first challenge for organizational and business psychologists in future.

Second challenge refer to organization of social spaces. Cities start to change into more comfortable place to leave taking into account the needs of people with different lifestyles and abilities. The ecological trend also becomes more and more popular all over the world. Incorporation of green zones, clean energy and other facilities are important part of contemporary environment planning. Organizational and business psychologists help government officials and corporation to develop places for rest and leisure helping to promote positive atmosphere for citizens and employees.

The third challenge refers to the design of educational and healthcare facilities. The development of the architectural concept and design of a modern medical institution is a complex creative task. The architectural concept of the building should include both directly the tasks of treating patients, but creating comfortable conditions for their relatives and doctors, and in addition, consider the issues of administrative and economic activities, fire and epidemiological safety. At the same time, an important task is to find the optimal financial model.

The environment has a significant impact on human safety and productivity. The layout of the facility affects the work of nurses and other caregivers. Sometimes disruptions in the organization of the work of large medical centres can potentially create conditions that, under certain circumstances, create conditions for the occurrence of errors. When planning, it is necessary to prevent the emergence of latent conditions that can contribute to the emergence of negative events (injury, discomfort, navigation). An example is poorly designed facilities, including the placement of technological rooms, equipment, complicated routes during procedures, low professionalism of employees, lack of personnel or shortcomings in the functional distribution of human resources, lack of safety culture.

The implementation of the architectural concept of the clinic is based on the following principles.
1. The building of the clinic is inscribed in the landscape of the area. This architectural solution allows you to create the illusion of the continuation of the park in the architectural features of the building.
2. The rooms are full of light and open space. It is important that the architectural solutions embodied in this building allow visitors to feel comfortable, and a large amount of glass creates maximum opportunities for daylight to enter the premises.
3. Simple navigation. Visitors should quickly and easily navigate the building space. For this, it is possible to see many objects from different points.
4. Separation of streams. This concept is implemented in such a way that patients, doctors and visitors do not intersect when moving inside the clinic. Also, the logistics of delivery of goods and materials are thought out.

An interesting solution was the compact placement of the building itself. In order to place all the rooms from the position of convenience for the patient, a model was chosen that assumes several central guides — corridors around which separate functional blocks of the building are located, as well as the division of functional zones by floors.

The clinic's hospital is in such a way that the largest number of windows face the park surrounding the clinic. The nurse's post is in the centre, which allows her to get to each ward as quickly as possible. All wards in the hospital are single. This decision allowed not only to significantly increase the level of comfort, but also to reduce the spread of nosocomial infections. The chambers themselves are created according to the principles of a hotel room. So, in each ward there is a folding sofa that can be transformed into a bed if a relative of the patient decides to stay overnight.

References

Abd Elrahman, A. S. (2020). The fifth-place metamorphosis: the impact of the outbreak of COVID-19 on typologies of places in post-pandemic Cairo. *Archnet-IJAR: International Journal of Architectural Research, 15*(1), 113–130.

Amabile, T. (1997). "Motivating creativity in organizations: On doing what you love and loving what you do". *California Management Review, 4*0(1), 39–58.

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., Herron, M. (1996) Assessing the work environment for creativity. *Academy of Management Journal, 39*, 1154–1184.

Augé, M. (1995). Non-Places: Introduction to an Anthropology of Supermodernity, London: Verso.

Baird, J. C., Cassidy, B., Kurr, J. (1978). Room preference as a function of architectural features and user activities. *Journal of Applied Psychology, 63*, 719–727.

Bochaver, K. A., Danilov, A. B. (Eds.) (2018). *Chelovek rabotayushchiy: mezhdistsiplinarnyy podkhod v psikhologii zdorov'ya* [Working person: an international approach in health psychology]. M.: Pero.

Bos, N., Molinaro, K., Perrone, A., Sharer, K., Greenberg, A. (2017). Workplace Satisfaction Before and After Move to an Open Plan Office — Including Interactions with Gender and Introversion. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 61*(1), 455–459.

Carnevale, D. G. (1992). Physical settings of work: a theory of the effects of environmental form. *Public Productivity & Management Review, 15*(4), 423–436.

Casey, E. S. (1993). *Getting Back into Place: Toward a Renewed Understanding of the Place-Worl*d. Bloomington (IN): Indiana University Press.

Dale, K., Burrell, G. (2008). *The Spaces of Organization and the Organization of Space: Power, Identity and Materiality at Work*. London: Palgrave.

De Molli, F. (2019). An aesthetic account of space: A report on recent developments in organizational research. *Studi Organizzativi, 1*, 36–63.

De Molli, F., Paoli, D. (2020). From co-workers to friends: How the aesthetic experience of third places affects the creative process. In: *Collaborative Spaces at Work. Innovation, Creativity and RelationsEdition, 1st Chapter.* Publisher: Routledge.

Donkin, R. (2009). *The Future of Work*. New York (NY): Palgrave Macmillan.

Duffy, F. (1997). *The New Office*. London: Conrad Octopus.

Dul, J., Ceylan, C. (2011). Work environments for employee creativity. *Ergonomics, 54*, 12–20.

EDRA (2019). *Environmental Design Research Association Fact Sheet*. https://cdn.ymaws.com/ www.edra.org/resource/resmgr/docs/edra_fact_sheet_2019.pdf

Edwards, J. R., Cooper, C. L. (2013). The person-environment fit approach to stress: Recurring problems and some suggested solutions. In *From Stress to Well-being. Vol.* 1 (91–108). L.: Palgrave Macmillan.

Edwards, J., Caplan, R. D., Harrison, R. V. (1998) Person-environment fit theory: Conceptual foundations, empirical evidence, and directions for future research. In C. L. Cooper (ed.). *Theories of organizational stress* (28–67). Oxford: Oxford University Press.

Fearson, A. (2015). Facebook moves into California campus designed by Frank Gehry. *Dezeen, 31 March 2015*. https://www.dezeen.com/2015/03/31/facebook-moves-into-campus-frank-gehry-silicon-valley-california/

Finnegan, M. J., Pickering, C. A. C., Burge, P. S. (1984). The Sick Building Syndrome: Prevalence studies. *British Medical Journal, 289*, 1573–1575.

Freud, S. (1930). Civilization and its Discontents. The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XXI (1927–1931) In *The Future of an Illusion, Civilization and its Discontents, and Other Works*, 57–146.

Fuzi, A., Clifton, N., Loudon, G. (2014). New in-house organizational spaces that support creativity and innovation: the co-working space. In R & D Management Conference 2014, 3-6 June, Stuttgart.

Gifford, R. (2008a). Psychology's essential role in climate change. *Canadian Psycholog. Psychologie Canadienne, 49,* 273–280.

Gualtieri, L., Rauch, E., Vidoni, R. (2021). Emerging research fields in safety and ergonomics in industrial collaborative robotics: A systematic literature review. *Robotics and Computer-Integrated Manufacturing, 67*.

Heerwagen, J. H., Heubach, J. G., Montgomery, J., Weimer, W. C. (1995). Environmental Design, Work, and Well Being: Managing Occupational Stress through Changes in the Workplace Environment. *AAOHN Journal, 43*(9), 458–468.

Hoff, E., Öberg, N. (2014). The role of the physical work environment for creative employees — a case study of digital artists. *The International Journal of Human Resource Management, 26*, 1889–1906.

Ivanova N., Benton S., Vaddington K., Makhmutova Ye. N. (2019). Tendentsii i perspektivy razvitiya psikhologii biznesa. Chto pokazala pyataya Mezhdunarodnaya nauchno-prakticheskaya konferentsiya «Psikhologiya biznesa: teoriya i praktika»? *Organizatsionnaya psikhologiya [Organizational Psychology], 9*(1), 116–141.

Jeffres, L. W., Bracken, C. C., Jian, G., Casey, M. F. (2009). The impact of third places on community quality of life. *Applied Research in Quality of Life, 4*, 333–345.

Kalakoski, V., Selinheimo, S., Valtonen, T. et al. (2020). Effects of a cognitive ergonomics workplace intervention (CogErg) on cognitive strain and well-being: a cluster-randomized controlled trial. A study protocol. *BMC Psycho.l, 8*(1).

Klimova, A. V., Ivanova, N., Thorngate, W. (2019). Dzheneralisty v sovremennykh organizatsiyakh: teoreticheskiy obzor [Generalists in modern organizations: a theoretical overview]. *Organizatsionnaya psikhologiya [Organizational Psychology], 9*(4), 185–202.

Kreiss, K. (1990). The sick building syndrome: where is the epidemiologic basis? *American Journal of Public Health, 80*(10), 1172–1173.

Lefebvre, H. (1991). *The production of space*. Oxford: Blackwell.

Lin, S.-Y., Chang, H.-I. (2020). Does open-plan office environment support creativity? The mediating role of activated positive mood. *Creativity Studies, 13*(1), 1–20.

Lister, K., Lieb, M. (2021). The Business Case for Remote Work. *Global Workplace Analytics and Design Public Group*.

Lohr, S. (1997). Cubicles are winning war against closed offices. *New York Times. August 11*. https://archive.nytimes.com / www.nytimes.com / library / cyber / week / 081197cube.html

Markovitz, G. (2121). Home-office, HQ, hybrid or work-from-anywhere? *World Economic Forum. The Jobs Reset Summit. 6 January 2021*. https://www.weforum.org/agenda/2021/05/home-office-hq-hybrid-or-work-from-anywhere-this-is-what-businesses-are-planning/

Meinel, M., Maier, L., Wagner, T., Voigt, K.-I. (2017). Designing Creativity-Enhancing Workspaces: A Critical Look at Empirical Evidence. *Journal of technology and innovation management, 1*(1), 1–12.

Montano, D., Adamopoulos, J. (1984). The perception of crowding in interpersonal situations: Affective and behavioral responses. *Environment and Behavior, 16*, 643–666.

Morisson, A. (2019). A Typology of Places in the Knowledge Economy: Towards the Fourth Place. In F. Calabrò, L. Della Spina, C. Bevilacqua (Eds.). New Metropolitan Perspectives. ISHT 2018. *Smart Innovation, Systems and Technologies, 100* (444–451).

Newman, R., Smith, B., Wolpert, M. (2021) Putting science to work: Understanding what works for workplace mental health. *Wellcome Trust. 11 May 2021.* https://wellcome.org/reports/under-standing- what-works-workplace-mental-health

Oldenburg, R. (1989). *The Great Good Place.* New York: Paragon Books.

Ree, V. J. H. (2002). The added value of office accommodation to organisational performance. *Work Study, 51*(7), 357–363.

Sailer, K. (2011). "Creativity as social and spatial process". *Facilities, 29*(1), 6–18.

Samani, S. A., Alavi, S. M. S. Z. (2020). Are Open-Plan Office Designs Still Popular After Coronavirus Pandemic? *Perf. Improv., 59*, 24–32.

Schlosser, J. (2006). Cubicles: The great mistake. *FORTUNE Magazine. March 22, 2006*.

Sferrazzo, R. (2020). The Construction of Workers' Identity in Liminal Spaces. *PuntOorg International Journal, 5*(1), 29–41.

Stamps, A. E. (2005). Enclosure and safety in urbanscapes. Environment and Behavior, 37, 102–133.

Stokols, D., Clitheroe, C., Zmuidzinas, M. (2002). Qualities of Work Environments That Promote Perceived Support for Creativity. *Creativity Research Journal, 14*, 137–147.

Taylor, S., Hans, H. (2005) 'Finding form: looking at the field of organizational aesthetics'. *Journal of Management Studies, 42*(6), 1211–1230.

Thoring, K., Desmet, P., Badke-Schaub, P. (2019). Creative Space: A Systematic Review of the Literature. *Proceedings of the Design Society: International Conference on Engineering Design, 1*(1), 299–308.

Thoring, K., Mueller, R., Badke-Schaub, P., Desmet, P. (2019). An Inventory of Creative Spaces: Innovative Organizations and their Workspace. *Proceedings of the Design Society: International Conference on Engineering Design, 1*(1), 39–48.

Vartanian, O., Navarrete, G., Chatterjee, A., Fich, L. B., Gonzalez-Mora, J. L., Leder, H., et al. (2015). Architectural design and the brain: Effects of ceiling height and perceived enclosure on beauty judgments and approach-avoidance decisions. *Journal of Environmental Psychology, 41*, 10–18.

Wainwright, O. (2013). All hail the mothership: Norman Foster's $5bn Apple HQ revealed. *The Guardian November 15*. https://www.theguardian.com/artanddesign/2013/nov/15/norman-foster-apple-hq-mothership-spaceship-architecture

Warren, S. (2008). Empirical Challenges in Organizational Aesthetics Research: Towards a Sensual Methodology. *Organisational Behaviour, HRM and Health Care Management, 29*(4), 559–580.

Wohlwill, J. F., (2009). The Physical Environment: A Problem for a Psychology of Stimulation. In *People and Buildings*: Routledge.

Управление рабочей средой: современные вызовы и будущие тенденции организационной психологии

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Аннотация. Рабочее пространство постоянно меняется от традиционной среды к офисной культуре, предполагающей пространственное расположение различных укромных уголков и ниш для концентрации, расслабления, перерывов, игр или командных встреч. Такие изменения направлены на повышение самочувствия и психологической безопасности сотрудников. То, как сотрудники воспринимают рабочую среду, приводит к эффективной или неэффективной их адаптации к требованиям работы и эффективности работы. Этот процесс может быть опосредован культурными и индивидуальными различиями, которые организационные и бизнес-психологи учитывают при проведении организационных изменений. Корректировка направлений дальнейших исследований и методологии исследований с надлежащим междисциплинарным целостным подходом может прояснить ранее невидимые связи и явления с теоретическими и практическими преимуществами архитектурного дизайна, затрагивая не только сферу физической среды на рабочем месте, но и многие другие области человеческого обитания и благополучия. Окружающая среда, физическое тело и личные качества тесно взаимосвязаны и не могут считаться полностью независимыми друг от друга, поскольку все они в равной степени способствуют пространственному и чувственному восприятию. Учёт таких факторов может помочь организационным психологам улучшить среду и повседневную обстановку, повысить потенциал людей, активно справляться с окружающей средой и формировать её.

Ключевые слова: организационная психология; рабочее пространство; окружающая среда; психология бизнеса.