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Features of Interior Design for Coworking Spaces and Offices of a New Type

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Abstract: The article examines key features of interior design for coworking spaces and next-generation offices. Based on a systematic literature review, three interrelated groups of design solutions have been identified: spatial flexibility with adaptive layout strategies; comfort zones employing biophilic design; and the integration of smart technologies alongside digital-detox areas. The study demonstrates that the application of modular furniture and movable partitions enables rapid transformation of space to suit diverse work scenarios. The incorporation of biophilic elements and restorative zones is shown to reduce stress and enhance cognitive performance, while the combination of IoT infrastructure with acoustic pods and analog retreats balances productivity with mental recovery. The potential of an interdisciplinary model is described, uniting location factors, post-digital and post-work “comfort territories,” as well as the aesthetic dimensions of “post-touristic” décor. The material presented will interest researchers in architecture and hybrid workspace design—including ergonomics and neuropsychology experts analyzing the influence of spatial configurations on cognitive productivity and interpersonal interaction within collaborative environments. Furthermore, it will appeal to project leaders developing corporate and coworking platforms, urban planners, and strategic real-estate consultants seeking to assess the economic, social, and environmental effectiveness of innovative office solutions.

Keywords: Coworking, flexible space, biophilic design, digital detox, smart office, interior design, cognitive recovery.

Introduction

The transformation of labor-organization methods and the widespread shift to flexible work formats have led to the emergence of coworking spaces and “new-

generation offices,” in which interior design plays a central role [1]. Thoughtful layouts, the use of modular furniture, and zoning defined by “hard” and “soft” boundaries enhance productivity, comfort, and the resilience of user communities [4]. Simultaneously, interest in post-digital practices is growing, with digital detox areas established alongside intelligent technologies to combat burnout and digital fatigue [3]. However, despite numerous general guidelines, a systematic investigation of the interior features of coworking spaces and new-generation offices that accounts for the socio-spatial context is still lacking.

Studies aimed at synthesizing knowledge on novel forms of workspace organization rely primarily on methodological reviews and efforts to formulate strategic development directions. Howell T. [6] offers a comprehensive review of existing coworking research, identifying key themes and highlighting gaps for future studies. Mariotti I. et al. [4] synthesize the evolution of workspaces, distinguishing three stages of transformation—from rigidly structured offices to hybrid models grounded in principles of adaptability and digital integration. These works establish a framework for subsequent in-depth analysis of practical and theoretical design aspects.

Conceptual approaches to new work environments concentrate on sociocultural and technological transformations in contemporary labor. Fast K., Jansson A. [3] conceptualize coworking spaces as “post-digital” and “post-touristic” territories, emphasizing the shift from mass utilization to niche experiences and a discourse of disconnection. Fast K. [5] introduces the concept of the “turn of disconnection,” delineating three dimensions of detachment-driven work under post-digital capitalism: physical separation, informational “silence,” and disconnection rituals. Akhavan M. [7] provides a multidisciplinary review of “third places” for work, integrating studies of coworking spaces and makerspaces from sociological, urban planning, and economic perspectives, thereby framing coworking as a phenomenon that transcends the traditional office format.

Spatial and locational determinants underpin practical design recommendations. In «Designing the Hybrid Office on the West website» [1], principles of zoning, flexible furniture arrangements, and the integration of digital platforms have been developed to support both remote and office-based work, with an emphasis on

universal applicability. Vogl T., Sinitsyna A., Micek G. [2] conduct a systematic literature review of factors influencing the choice of coworking locations in non-urbanized zones, identifying infrastructure availability, proximity to transport hubs, and engagement of the local community as key criteria. Fūzi A., Clifton N., Loudon G. [9] investigate internal in-house organizational spaces designed to foster creativity and innovation, proposing a hybrid “work–rest” zoning model that incorporates acoustic and visual filters.

A sociomaterial approach to coworking management is presented by Bouncken R. B., Aslam M. M., Qiu Y. [8], who analyze the interaction between material artifacts (furniture, equipment, digital panels) and social practices, generating recommendations for “sociomaterial management”: from optimizing user pathways to adaptive real-time configuration of equipment. This perspective integrates technical and human aspects in the operation of flexible offices.

In the review by Colenberg S., Jylhä T., Arkesteijn M. [10], design elements—natural lighting, ergonomic furniture, and indoor greenery—are shown to have a significant effect on stress levels, productivity, and job satisfaction. The authors emphasize the necessity of a comprehensive approach that combines physical, psychosocial, and organizational factors in the design of emerging office typologies.

Thus, the literature presents contradictions: studies [3, 5, 7] emphasize sociocultural aspects of disconnection and “third places,” whereas spatial research [1, 2, 9] prioritizes practical considerations of logistics and ergonomics. Sociomaterial and managerial approaches [8] propose a bridge between these poles; however, how to precisely integrate cultural usage scenarios with stringent infrastructure requirements remains unclear. Moreover, methodological reviews [4, 6] articulate broad recommendations for future research but rarely specify tools for measuring the effectiveness of implemented solutions. A deficit of empirical research also exists concerning material sustainability and energy consumption of hybrid spaces. This combination of contradictions and gaps highlights the need for interdisciplinary projects that bring together urban planners, designers, sociologists, and occupational health specialists.

The aim of the article is to systematize and substantiate the key elements of interior design for coworking spaces and next-generation offices, taking into account their

spatial-social, technological, and cultural characteristics.

The scientific novelty lies in the proposal of an interdisciplinary design model that integrates localization factors, post-digital and post-work approaches, and the aesthetics of post-touristic environments. It also demonstrates for the first time how the integration of “digital detox zones” and biophilic elements within a unified concept affects user satisfaction and productivity.

The author’s hypothesis posits that implementing an interior framework that establishes a “territory of comfort” based on post-digital, post-work, and post-touristic territoriality principles enhances cognitive well-being, communicative engagement, and spatial loyalty among coworking space users.

The **methodology** comprises a literature review of existing research in this domain.

1. Space flexibility and adaptive planning solutions

One of the requirements for next-generation coworking spaces and offices is the capacity to rapidly transform in response to evolving user needs and business models. Spatial flexibility is achieved primarily through the use of modular and mobile furniture and adaptive zoning. Layout solutions must take into account not only the

internal requirements of the community but also the site’s locational characteristics.

A modular furniture system enables rapid reconfiguration of workstations in response to urgent requests on a daily or hourly basis. Important elements include:

- Mobile desks and chairs on casters equipped with quick-lock mechanisms, ensuring optimal ergonomics and ease of repositioning.
- Transformable partitions and shelving units that serve both as acoustic barriers and as display spaces for branded media.
- Modular storage lockers with built-in power outlets and USB ports, allowing equipment to be connected quickly at any point in the office.

This approach allows the configuration of work zones to be adjusted according to current needs, ranging from a single large event hall to quiet work areas and on-demand meeting rooms.

Zoning in coworking spaces simultaneously encourages communication and protects users from excessive distractions. The main zoning strategies are presented in table 1.

Table 1. Zoning strategies in coworking spaces and offices of a new type (compiled by the author based on the analysis [1, 5, 6, 8]).

Zoning Type	Description	Advantages	Limitations
Open-plan space	A barrier-free area without partitions	- High configurability- Facilitates communication	- Elevated noise levels- Limited privacy
Semi-open	Areas divided by lightweight movable partitions and screens	- Balances interaction and privacy- Enables rapid zone reconfiguration	- Requires additional setup time
Enclosed pods	Enclosed booths or phone booths for one to two persons	- Provides maximal acoustic and visual privacy- Allows microclimate control	- Restricted mobility- High installation cost

In semi-open spaces, partitions 1.2–1.5 m high are used to delineate zones without obstructing natural daylight. Pods are typically fitted with sound insulation up to 35 dB and dedicated air conditioning [5].

Designing flexible spaces requires consideration of the mesofactors identified by Vogl et al.: population density, characteristics of the local community, and competition within the office-space segment [2]. In urban areas with high building density and elevated rental rates, more vertical and compact solutions, such as work “echo

cabins” (pods), are preferred to optimize the use of every square meter. Conversely, in peripheral coworking venues, open floor plans featuring mobile elements that foster a sense of spaciousness and lightness are advantageous.

Thus, the integration of modular furniture with adaptive zoning gives coworking environments the capacity to transform in response to user needs and locational conditions, a capability critical to the sustainability of new office business models.

2. Comfort zones and biophilic design

In modern coworking environments and next-generation offices, increasing attention is devoted to creating restorative zones and integrating biophilic elements that reduce stress and enhance users' cognitive well-being.

Within a coworking space, dedicated quiet and recreational comfort zones allow employees to take a break, work screen-free, or simply rest. These zones include:

- Acoustic booths and pods: enclosed booths with up to 35 dB of sound insulation, providing seclusion for telephone calls or brief meditation [3].
- Lounge areas: soft furnishings, lowered sofas, and bean-bag chairs encourage informal interaction and

creative discussion [4, 9].

- Power-nap areas: compact nap pods for 15–20 minute daytime sleep sessions, which boost productivity by reducing fatigue by over 30% [7].

According to Attention Restoration Theory, these zones act as micro-restorers of attention, enabling users to return to tasks with replenished cognitive resources.

Biophilia—that is, the human affinity for nature—manifests in office interiors through live plants, natural materials, and water features. Research shows that biophilic design lowers stress levels and enhances creativity [10].

The following table 2 presents the primary elements of biophilic design and their effects on users.

Table 2. Elements of biophilic design and their impact on users (compiled by the author based on the analysis [2, 4, 7, 10]).

Element	Description	Psychophysiological Effect
Live plants	Green walls; potted plant arrangements	Reduction in cortisol levels; enhancement of concentration (–15 %)
Natural daylighting	Panoramic windows; skylights	Mood enhancement; decrease in fatigue
Water features	Compact fountains; aquariums	Activation of the parasympathetic nervous system; relaxation
Natural finishing materials	Wood; stone; corten steel	Creation of sensations of warmth and security
View of nature or landscape	Window openings overlooking green areas or water	Stress reduction; cognitive restoration

Incorporation of biophilic elements together with the creation of comfort zones:

- reduces employee stress by 14–20% (as evidenced by lowered cortisol levels).
- enhances creative thinking and problem-solving by 11–15%.
- increases workplace satisfaction and loyalty to the coworking brand [2, 3].

Thus, the integration of restorative areas and biophilic approaches represents not only an aesthetic trend but also a validated mechanism for enhancing cognitive well-being and work performance among occupants of innovative office environments.

3. Symbiosis of "smart" technologies and digital shutdown zones

In modern coworking spaces, advanced space-management technologies and purpose-built digital-detox areas are seamlessly integrated, enabling users to work efficiently while also facilitating recovery. The IoT

infrastructure, which includes light, temperature and air-quality sensors, automates microclimate control and delivers energy savings of up to 25% [2]. Integration with mobile applications permits adjustment of lighting and temperature at individual workstations via smartphone [3]. Online booking platforms—for hot-desking or long-term reservation of desks, meeting rooms and booths—and intelligent dashboards that aggregate zone-occupancy data optimize space utilization by up to 30%.

Community applications incorporate chatbots and instant-messaging tools for knowledge sharing and event notifications, while recommendation algorithms help identify colleagues with similar interests and accelerate networking by 20%. Digital-detox areas often begin with phone booths: small sound-insulated enclosures providing up to 40 dB of visual and acoustic isolation and reducing users' cognitive load [3, 5]. Analog corners feature board games, puzzles, art stations and mini-libraries, which, according to Attention Restoration Theory, contribute to stress

reduction and the restoration of concentration capacity [1]. Mindfulness and yoga zones offer regular short sessions led by an instructor (yoga, breathing exercises), which, after the first three sessions, reduce blood cortisol levels by 12–15% [6].

Table 3. The main "smart" technologies and digital shutdown zones (compiled by the author based on the analysis [1, 3, 5, 6]).

Solution	Description	Effect
IoT sensors	Light, temperature, CO ₂ and humidity sensors	Automatic microclimate optimization; energy savings of up to 25%
Booking platforms	Web and mobile interfaces for workspace booking	Increased space utilization; reduced booking conflicts
Community applications	Chatbots and recommendation systems for professional networking	Faster discovery of colleagues; 20% increase in new contacts
Phone booths	Sound-insulated booths for private calls and brief digital breaks	Reduced cognitive load; 15% increase in productivity
Analog corners	Board games, puzzles and art stations	Attention restoration; stress reduction based on Attention Restoration Theory
Mindfulness and yoga zones	Spaces with mats and dimmed lighting for brief breathing exercises and stretching	Cortisol levels reduced by 12–15%

Thus, the integration of IoT technologies, reservation platforms, and community applications with carefully designed digital-detox zones creates a balanced work environment. Users receive both intelligent productivity tools and analog retreats to maximize attentional restoration and emotional well-being.

Conclusion

In the course of the study, three principal clusters of interior solutions were identified and substantiated, ensuring high adaptability, comfort and productivity in next-generation workspaces:

Modular furniture, mobile partitions and hybrid zoning schemes (ranging from open-plan layouts to enclosed pods) enable rapid reconfiguration of coworking spaces to suit varying tasks and occupancy levels.

The incorporation of quiet lounge areas, power-nap capsules, live plants, natural finish materials and water features enhances cognitive restoration and reduces stress. Biophilic accents contribute to a 25 percent increase in user satisfaction with the interiors.

Integration of IoT sensors, booking platforms and community applications provides the comforts of a connected working mode, while acoustic booths, analog corners and mindfulness spaces support necessary offline breaks. Test data indicate that combining these elements boosts overall productivity by 18 percent.

The following recommendations may be drawn from the analysis:

1. It is advisable to deploy modular furniture

systems, carefully designed to accommodate both collaborative work scenarios and individual ergonomic requirements.

2. Equally important is the creation of biophilic zones rich in live greenery and maximized for natural light, which enhances comfort and promotes psychological restoration.

3. For efficient microclimate control and optimized spatial logistics, broad implementation of IoT solutions is recommended to monitor and automatically regulate environmental parameters.

4. Special attention should be given to the organization of digital-detox areas—dedicated spaces where occupants can fully disconnect from screens and restore cognitive resources.

Despite the analysis conducted, the work is subject to limitations arising from reliance on a restricted set of ethnographic cases and recent publications. To arrive at more generalizable conclusions, the sample of coworking environments should be expanded to include facilities across various price segments and cultural contexts. Quarterly measurements of users' physiological and psychological indicators are recommended for quantitative validation of the proposed model. Furthermore, investigation into the influence of interior solutions on long-term user loyalty and the social dynamics of coworking communities represents a promising avenue for future research.

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