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RETHINKING INTERIOR SPACE: HUMAN-CENTERED APPROACH AND ADAPTIVE DESIGN STRATEGIES

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*Abstract. **Purpose.** The purpose of this study is to reevaluate the hierarchy of interior space and identify adaptive design strategies that ensure flexible interaction between the space and the user under changing socio-economic and life scenarios.*

***Methodology**. The study employs a theoretical and analytical approach, which involves analysing contemporary scientific publications in the field of human-centred and adaptive design. It also includes the generalisation of existing practices, their systematisation, and the classification of transformative and adaptive solutions.*

***Results**. The study identifies adaptability and transformability as key principles of the human-centered approach in interior design. A classification of adaptability was proposed, based on the main vectors, namely adaptability to humans and adaptability to space. Approaches to the transformation of the interior–through movement, multifunctionality, and perception–were developed and systematised, allowing for the creation of different interior scenarios without requiring radical intervention in the space.*

***Scientific novelty**. For the first time, this classification of spatial adaptability was formulated according to the main vectors. Systematised approaches to the transformation of the interior were revealed, which allow them to be considered as полноценні alternative strategies of contemporary interior design.*

***Practical relevance**. The obtained results can be applied in the practice of interior design to create flexible and adaptive environments. The proposed approaches contribute to increasing comfort, functional efficiency, and psychological stability of the user without the need for significant replanning, which is a significant advantage in a period of a complex economic situation.*

Keywords: interior design, human-centred design, adaptive design, residential interior, spatial transformation, interior space, sustainable development, interior hierarchy, modular systems, spatial optimisation, contemporary design, multifunctionality, design strategy.

INTRODUCTION

Currently, we live in a time of socio-economic uncertainty, driven by several contemporary crises, including pandemics, economic fluctuations, and wars. All of this creates a demand for spaces that can quickly change their functional purpose with lower costs for reconfiguration. In addition to economic feasibility, we must also consider the social, cultural, and psychological aspects in interior design, which are influenced by changes in everyday life, work, and leisure in the XXI century. A person is considered the main user of space. It is the development of adaptive solutions that enhances human-centeredness, as it allows the environment to be adjusted to individual, physical, and social

needs. This, in turn, leads us to the need to rethink spatial hierarchy, which is based on flexibility, adaptability, variability, and human experience.

This necessitates the study of the principles of forming an adaptive interior space that meets modern requirements of flexibility and human-centeredness, and also determines the connection with current scientific and practical tasks in the field of interior design, in particular regarding the search for tools of spatial transformation that ensure the economic feasibility of the operation of objects and contribute to the psychological resilience of the user in conditions of social dynamics.

ANALYSIS OF PREVIOUS RESEARCHES

The concept of a human-centric approach to creating flexible and adaptive design is a subject of significant interest within the academic community. For example, this includes the development of planning solutions based on user experience (UX) in residential apartments [5]. There are also studies on integrating generative AI platforms for adaptive residential design that respond to changing family structures and user requirements [19]. The importance of applying modular design strategies across various building systems to enhance the adaptive capacity of buildings has also been emphasised [7]. In addition, this issue has been examined from the perspective of adapting abandoned buildings not merely as a process of restoration or reconstruction, but as a means of preserving architectural heritage through the adaptation and transformation of a building's functional purpose in response to changing societal demands [2]. Another approach involves adaptation through the incorporation of contemporary upcycling design trends [13; 14].

PURPOSE

This research aims to rethink the hierarchy of interior space and identify adaptive design strategies that ensure flexible interaction between the space and the user under changing social, economic, and life scenarios. The study aims to substantiate adaptability as a fundamental characteristic of contemporary interiors, influencing not only their functional efficiency but also psychological stability.

RESULTS AND DISCUSSION

In the traditional hierarchy of interior design, functionality and aesthetics function as dominant values. However, interior solutions are still largely shaped by outdated usage scenarios and stylistic canons. They are based on the assumed predictability of human behaviour in accordance with clearly defined functions and spatial roles in everyday life. Zoning, furniture, and design solutions are selected for a specific action or mode of use. Functionality thus becomes both a safeguard and a constraint, limiting the potential for spatial transformation. Generalisation can never be a genuine solution to a design problem; rather, it represents a simplification made in favour of optimising the design process.

The challenge for the contemporary designer is not merely to create a viable environment that serves the user, but to design one that can interact with the individual throughout their life.

Adaptability should become the foundation that provides a sense of confidence and control within one's own space. However, adaptability cannot be discussed without considering a human-centric approach to design. Through this approach, space adjusts to the real-life scenarios of the user and, consequently, influences the perception of its quality. Human-centeredness allows us to focus on the user's challenges and needs [10]. The individual's everyday activities, physical capabilities, needs, future perspectives, and emotional states become the starting point that determines the logic of the future spatial environment. Therefore, the formation of an adaptive interior model should begin with simple yet fundamental questions that help reveal the real user and their interaction with the future space:

1.Who is the user of this space? This question provides insight into the specific user – their lifestyle, preferences, and physical characteristics. In design decision-making, this information defines the structural code of the space:

– data for ergonomic solutions;
– stylistic and aesthetic decisions;
– selection of materials based on individual sensory characteristics.

2. What realistic life scenario unfolds here over time and within space? This allows us to obtain a map of everyday actions within the spatial environment. It enables the identification of planning logic and spatial structure, as well as the detection of peak moments and functional loads on specific zones, which can be used for:

– zoning;
– regulation of movement flows;
– furniture arrangement;
– planning of storage spaces;
– distribution of lighting.

3. What may prevent a person from feeling comfortable in the space? The proactive elimination of invisible obstacles that affect comfort and a sense of safety:

- addressing issues related to «problematic neighbours» such as insufficient sound insulation, inadequate insolation, etc.;

- clear and intuitive spatial navigation.

The first three questions represent a classical questionnaire [16] that typically initiates interior design practice: identifying the user, understanding their everyday scenarios, and revealing potential difficulties in interacting with the space. This level establishes the necessary functional foundation; however, under contemporary conditions, it is no longer sufficient for creating a truly viable environment.

Today, space must address not only basic needs but also respond to psychological factors, rapid lifestyle changes, and the growing integration of technology into everyday life. Therefore, the traditional approach requires further deepening and expansion – toward adaptability. This shift opens the possibility of creating an interior that not only performs functions but also adjusts to the user and supports them across various life circumstances.

Thus, a logical continuation of the initial analysis is the introduction of additional questions that help encompass more complex and long-term parameters of spatial use. These questions include:

4. How can space create a sense of psychological safety and emotional comfort?

The reality is that throughout the day and across different life stages, individuals must constantly adjust to various tasks that often require different emotional states. Space should support these transitions by providing calmness, activation, fostering concentration, stimulating activity, or relieving tension. Research confirms [17] that sensorially balanced interior design can improve mental well-being, create a sense of safety and privacy, and transform living environments into healing spaces for occupants.

In particular, these effects can be achieved through the integration of specific architectural and design strategies, including:

– spatial zoning solutions (open versus enclosed areas);

– the selection of colour schemes (warm/cool, neutral/saturated);

– lighting intensity and character (diffuse lighting for calmness, accent lighting for activity);

– tactile diversity of materials [12] and decorative elements.

5. To what extent is the user prepared to interact with technology within the space, and do they maintain control over it? These two questions are intrinsically connected. When users feel that they control technology – rather than technology controlling them–their sense of safety increases and anxiety is reduced. It is precisely the feeling of control that transforms technology from a potentially intrusive element into a means of self-expression and comfort.

Smart home systems can be configured according to individual preferences and needs, allowing users to easily manage domestic devices through mobile applications or voice control. This eliminates the need to manually operate multiple switches and remote controls [18]. For example, during cold winter periods, users can activate heating or air-conditioning via a mobile application before returning home, ensuring a warm and comfortable environment upon arrival.

This becomes possible through the integration of specific technological solutions that provide users with additional options for adaptability and autonomy, including:

– Smart Home platforms that unify the control of lighting, climate, security, and spatial usage scenarios within a single ecosystem (KNX, Loxone, Control4, Apple HomeKit, Google Home, Xiaomi Mi Home).

– Human-Centric Lighting systems that respond to human biorhythms, levels of natural daylight, and spatial usage scenarios (Philips Hue, Casambi, Lutron, Artemide Integralis).

– Intelligent microclimate control systems that automatically regulate temperature, humidity, and air quality (Prana, Tado, Netatmo, Daikin Smart Control, Bosch Smart Climate).

– Automated privacy and light-transmission control systems, including motorised curtains and smart glass solutions (Somfy, Silent Gliss).

– Sensor-based and scenario-driven control systems that respond to presence, movement, or voice commands (Ajax Systems, motion sensors, voice control: Amazon Alexa, Google Assistant).

Under conditions of heightened instability and crisis-related challenges – particularly those associated with disruptions to energy infrastructure – the issue of residential space autonomy acquires fundamental new significance. Contemporary interior design increasingly must account for scenarios involving a limited or temporarily unavailable power supply. Such a design approach is aimed not only at minimising potential risks but also at fostering a sense of protection and ensuring a basic level of comfort for users.

– Autonomous battery power stations for domestic use (EcoFlow, Bluetti, Jackery, Anker PowerHouse, among others) provide backup power for essential appliances, communication devices, and lighting.

– Residential energy storage systems operating in conjunction with the grid or alternative energy sources (Tesla Powerwall, Sonnen, BYD Battery-Box) enable the maintenance of critically important spatial functions in autonomous mode.

– Energy-efficient lighting solutions with integrated backup power sources (emergency LED systems, localised lighting modules) contribute to the formation of a safe and user-oriented environment during power outages.

– Energy management systems that enable selective power supply to priority interior zones (integrated solutions based on KNX or Loxone) optimise the use of limited resources.

– The combination of internal battery systems with localised renewable energy sources (compact residential solar panels) creates an additional layer of energy independence.

In this context, technology does not function as an end in itself, but rather as a tool for creating an adaptive, human-centric environment.

6. How will the user's needs change over time? Can the interior anticipate these changes? Life circumstances and user needs evolve alongside age, professional activity, social status, and everyday conditions. An interior space should therefore respond not only to current requirements but also retain the capacity to support the user across different stages of the life cycle.

When a space acquires the ability to respond to new circumstances without losing spatial coherence or functional efficiency, it gains a significant advantage over outdated design principles. This is how an alternative hierarchy of interior design is formed –one in which adaptability is understood not as an additional feature, but as a fundamental principle of spatial organisation.

It is critically important to distinguish adaptability from the related concept of universality. A universal interior is a spatial solution designed for an abstract user, offering a basic level of residential comfort without considering individual usage scenarios. In such cases, the end user is required to independently adapt the space to their own lifestyle and changing needs. An adaptive interior, by contrast, is designed to work with a specific individual and their evolving requirements.

Adaptive interiors should therefore be understood as systems capable of responding to a complex set of changing factors, related both to the user and to a broader spatial and cultural context. Accordingly, interior adaptability can be classified along the following dimensions (Fig. 1):

1. Adaptability of space to the human as the primary user.

This level of adaptability focuses on the individual characteristics of a person, as well as their personal challenges and needs:

– Adaptation to physiological needs;

– Adaptation to emotional needs;

– Adaptation to social changes;

1. *Adaptability of space to the building as a design framework*

– Adaptation to structural constraints;

Beyond ensuring basic structural integrity, structural constraints are considered as a design condition that leads to the optimisation of planning solutions [15]. Understanding which elements can be modified and which require major intervention directly affects the overall project cost. Therefore, economic feasibility should also be considered at this level.

– Adaptability within the context of architectural heritage;

When working with heritage buildings, principles of adaptability play a decisive role.

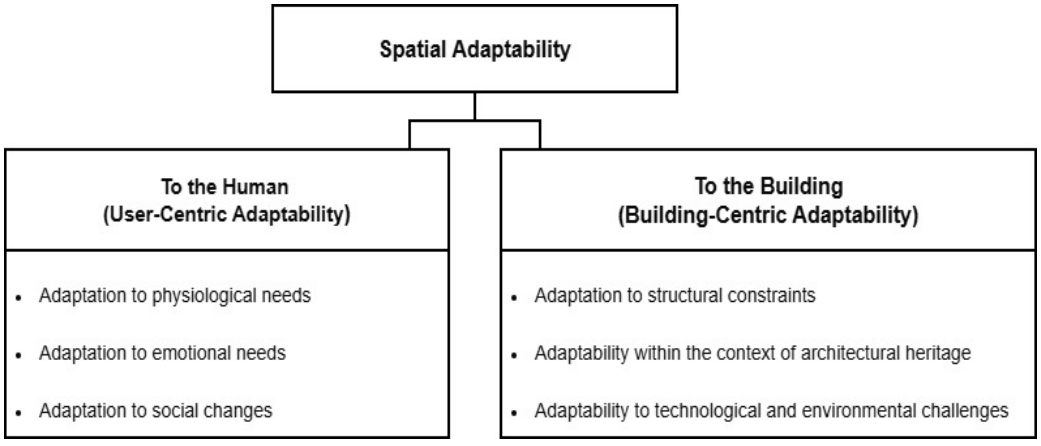

Fig. 1. Classification of spatial adaptability by main vectors
Source: compiled by the author (T. Osadcha).

This approach enables the harmonious combination of contemporary requirements with the preservation of the space's authentic character. In particular, the application of revitalisation strategies has demonstrated high effectiveness [20].

– Adaptability to technological and environmental challenges;

The application of a comprehensive, integrated approach that encompasses sustainability, technological flexibility, and resilience is a necessary condition for creating high-quality, long-lasting interiors. This enables spaces to function effectively and maintain their relevance in a dynamic and constantly changing world.

One of the fundamental mechanisms for implementing adaptability in interior design is transformability. It refers to the ability of space or its elements to change their configuration, function, or mode of use in response to a specific scenario. Transformability allows the same environment to perform multiple roles without requiring significant intervention. In contemporary interior design practice, interior transformation should be considered as a multi-vector process, within which three main directions can be identified (Fig. 2).

1. Transformation through Movement (Mobility)

The primary method of transformation, the essence of which lies in the user's ability to physically relocate individual elements or change their position within the interior without interfering with the building's stationary structure. This approach is most often applied in spatial planning, where the possibility of variable changes in spatial configuration and/or the relationships between zones is formed. In practice, such variability is ensured through key tools, including:

– Mobile partitions

Adaptive partitions play a key role in the creation of multifunctional and adaptive spaces in both residential and commercial interiors [1]. They make it possible to change the degree of openness and the size of the space depending on the situation. These systems may vary according to their structural type and include sliding, folding, and mobile solutions.

Sliding systems operate on ceiling-mounted or concealed tracks. They may be single-leaf, double-leaf, or telescopic (when several sections slide behind one another). Such systems can be implemented as sliding doors or as integrated solutions that disappear into the wall (pocket systems) or into a free-standing wall element.

Folding panels of the "accordion" or "book" type consist of individual sections connected by hinges and fold toward the wall or into a designated parking zone. They may vary in the number of leaves and dimensions, and are generally lighter than sliding systems.

Portable partitions, including screens and folding screens, primarily serve as decorative elements that significantly influence the interior's aesthetic perception. However, they can be easily moved manually to any location within the room. Folding screens are most commonly used for visual zoning of space or to conceal certain visually unattractive elements of the interior.

– Rail-based systems

The movement of individual objects significantly expands the possibilities of scenario-based use and allows the interior configuration to be changed quickly – for example, adapting a living area for receiving guests, working, or retreat and privacy. Rail-based systems in interiors form a specific type of transformation in which movement becomes controlled and predictable. Importantly, the rail scheme

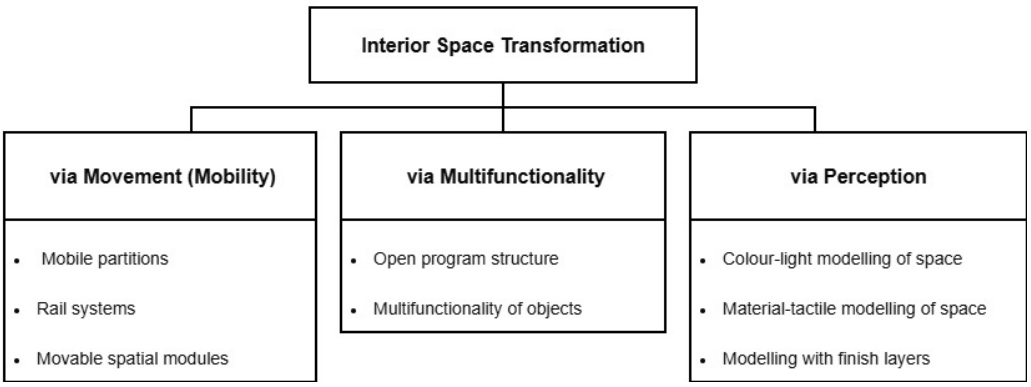

Fig. 2. Interior space transformation options
Source: compiled by the author (T. Osadcha).

itself remains almost imperceptible, while the transformation is perceived as a natural part of the everyday use of the interior space.

Track lighting can function as a mobile, scenario-based element that highlights functional zones, alters the perceived scale of space, or transforms the atmosphere depending on the time of day and the user's activity. Contemporary systems ensure flexibility in the placement and adjustment of lighting. For example, magnetic track systems, in which luminaires are fixed to the track by means of a magnetic connection. This mounting principle allows for rapid changes in the position, quantity, or typology of light fixtures without the use of additional tools and without interfering with the base system. As a result, lighting can promptly adapt to changes in the spatial layout of the interior or to new scenarios of space use.

Monorail systems are distinguished by a flexible track whose form can be modified to match the spatial composition of the interior. The ability to create curvilinear or individually defined trajectories makes it possible to use light not only as a functional element but also as a form-generating one. In this case, lighting participates in shaping spatial dynamics, emphasising movement, direction, or the plastic structure of the environment, without compromising its adaptive potential. These systems successfully transform the movement of light into a form of immaterial yet perceptible spatial transformation.

At the same time, track-based solutions also include lightweight panels and curtains that operate on the principle of flexible spatial boundaries. Unlike rigid constructions, curtains, soft panels, or lightweight screens allow the character of a space to be changed quickly – from open to isolated – without permanent fixation. They function not only as zoning tools but also as instruments for regulating light, acoustics, and privacy. It is precisely this reversibility and ease of transformation that make such elements particularly valuable in adaptive interiors oriented toward changing life scenarios and aesthetic preferences.

– Mobile spatial modules

The transformation of an interior through mobile spatial modules is based on the principle of variability of the internal structure without fixing elements in a permanent position. Such modules function as autonomous volumes capable of changing their location within a space and, consequently, influencing its spatial organisation. Their movement enables the prompt formation of new spatial configurations tailored to various usage scenarios, without compromising the integrity of the interior. Mobile spatial modules in adaptive interiors may vary in nature and in the degree of their integration into the overall spatial structure.

Pull-out or concealed elements represent one of the most compact transformation solutions. They are integrated into the primary volumes of the interior and activated only when needed. Such elements are often associated with rotation, unfolding, or expansion of a volume. This approach makes it possible to preserve the visual integrity of the space while simultaneously providing functional extension [9]. These solutions are particularly effective in small-scale interiors: pull-out work surfaces, sleeping elements, and additional storage zones that appear only at the moment of use. This typology reduces the number of visual stimuli and contributes to a sense of spatial order and clarity.

Mobile furniture elements, including transformable sofas, sectional seating systems, and modular compositions, play a distinct role in the transformation process. Sectional systems consist of individual components that can be combined into various configurations. Their transformational potential lies not so much in the movement of a single module as in the ability to alter the composition of the entire volume. Changing the position or configuration of furniture allows the space to be reinterpreted throughout the day, adapting it to different user scenarios.

Thus, mobile spatial modules form the foundation of a dynamic interior in which transformation occurs not as an exceptional event, but as a natural part of everyday use of the space.

In a broader sense, mobility is not limited to the mechanical movement of elements alone. It shapes a different type of interaction between the individual and the environment, where the interior ceases to function as a static backdrop and becomes an active setting capable of responding to changing circumstances in real time.

2. Transformation through multifunctionality

Unlike transformation through movement, where changes occur as a result of the physical relocation of elements, transformation through multifunctionality leaves the space formally unchanged, while its functional content and usage scenarios vary according to the needs of the user.

– Open programmatic structure;

An open programmatic structure implies the rejection of rigidly fixed functional roles of space and focuses on the possibility of their

reinterpretation in response to user needs and usage scenarios. Most often, it is implemented through a studio-type layout [3], where several functions coexist within the space simultaneously rather than sequentially. This approach effectively represents a refusal of any strict hierarchy of rooms.

Such a structure creates the preconditions for interior adaptability, as it allows the space to respond not only to physical changes but also to the evolution of the user's lifestyle. In this sense, adaptability emerges not as an isolated design technique, but as a logical continuation of the programmatic openness of the environment.

– Multifunctionality of objects;

Unlike movable or transformable furniture, in this case, the same object performs several functions without changing its physical form [6]. Its polyfunctionality is embedded not in mechanics, but in the logic of use. The key aspect is that this functional layering must be incorporated at the stage of designing the object or interior element. Different aspects of an object activate different functions depending on how it is used, such as:

– furniture with integrated functions (seating + storage);

– architectural elements with utilitarian potential (niches, podiums, window sills);

– built-in systems that combine engineering functions with everyday use;

– objects with open-ended usage scenarios.

In general, the multifunctionality of objects is aimed at reducing the density of furnishings without a loss of functional capacity. In combination with an open programmatic structure, it forms a multilevel model of an adaptive environment oriented toward the individual and their life scenarios.

3. Transformation through perception

Transformation through perception is based on altering how space is perceived and experienced by the user, without requiring significant intervention in its physical structure. In this case, adaptability is achieved not through movement or functional change, but through the management of sensory, cognitive, and emotional aspects of human interaction with the environment. It should be noted that the transformation of space through perception is most often implemented at the level of visual and decorative solutions. It does not imply changes to the spatial or planning structure, but is realised through the following key techniques:

– Colour and light modelling of space

Within this approach, colour and light are considered not as decorative additions, but as design tools that shape scenarios of human interaction with space. Examples include local lighting accents instead of partitions; different colour temperatures of light for separate zones; and subtle variations in surface colours within a single room. This category also includes the correction of spatial perception through the use of colour and lighting.

– Material and tactile modelling of space

This approach is based on working with the physical properties of surfaces and their sensory impact on humans [11]. Through the combination of surfaces with different tactile and visual characteristics – smooth and textured, warm and cold, matte and reflective – the interior acquires an internal hierarchy and depth. Changing materials within a single space allows for zoning without the use of physical barriers, while maintaining the integrity of the environment. A particularly important role is played by the tactile comfort of surfaces with which a person is in constant contact, directly influencing feelings of convenience, stability, and psychological safety. An additional level of adaptability is created through material layering – the use of textiles, interchangeable coverings, and local accents – which allows for the adjustment of the space's character without compromising its planning structure.

– Modelling through finish layers

Finish-layer modelling of the interior environment is associated with work at the final stage of spatial formation and is aimed at changing its character without interfering with the structural or planning framework. Through the layering of finish elements – surface finishes, decorative planes, and details – the interior gains the ability to adapt to the context of use, seasonal changes, or the individual preferences of the user. Such techniques enable the adjustment of the visual density of the space, the degree of intimacy or openness, as well as the emotional atmosphere of the environment [8]. At the same time, the finish level remains the most flexible and reversible within the system of adaptive solutions, which makes it an effective yet auxiliary tool in the overall hierarchy of interior transformation.

Transformation of the interior through perception demonstrates that a space's capacity for change is not always linked to its physical reconfiguration. Working with colour, light, materials, and finish layers allows for the creation of different states within the same environment, adjusting its emotional tone [4], sense of scale, and usage scenarios. At the same time, this type of transformation has a limited character, as it operates primarily at the sensory and

visual-decorative level and does not directly affect the spatial and planning structure. For this reason, transformation through perception is regarded as an auxiliary yet important mechanism of adaptability, enhancing the human-centred qualities of the interior and complementing deeper spatial and programmatic solutions.

The examined approaches to interior transformation – through movement, open programmatic structure, and perception – demonstrate different ways of shaping adaptive space depending on the design task, scale, and context of use. Each of them operates at a distinct level of interaction between the human and the environment and can be applied independently or in combination, without forming a rigid hierarchy. Such variability of approaches expands the toolkit of interior design and emphasises adaptability as a design principle oriented not toward universal solutions, but toward a specific person and their way of life.

CONCLUSIONS

The analysis of the human-centred approach and adaptive mechanisms of interior design demonstrates a departure from the standardisation of interiors designed for an abstract user. Instead, space is increasingly understood as a system shaped around a specific individual, their life scenarios, and their needs. Basic design questions concerning the user, patterns of space use, and existing barriers to interaction remain the starting point; however, in the contemporary context, they require expansion. Incorporating aspects of psychological comfort, control over technologies, and anticipation of changes in user needs shifts the interior into the realm of an adaptive environment capable of responding to unstable external and internal conditions.

The proposed classification of interior space transformation – through movement (mobility), open programmatic structure, and perception – makes it possible to consider adaptability as a set of alternative design strategies. These approaches can be applied selectively, depending on the context, project scale, and the user's actual needs.

Ultimately, adaptability emerges not as an additional feature of the contemporary interior, but as its fundamental characteristic, directly linked to a human-centred design logic and an orientation toward long-term, flexible, and individualised use of space.

Further research should focus on an in-depth analysis of adaptive interior solutions in real residential and public spaces, particularly under conditions of social, economic, and infrastructural instability. Special attention should be given to the development of methodologies for assessing their impact on quality of life. A promising direction is also the study of the interaction between the human-centred approach and emerging technologies, as well as scenarios of autonomous interior functioning, which together form the basis for the further development of adaptive living environments.

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АНОТАЦІЯ

Осадча Т., Приступлюк Б. Переосмислення інтер'єрного простору: людиноцентричний підхід та адаптивні стратегії проєктування

Мета. *Метою дослідження є переосмислення ієрархії інтер'єрного простору та виявлення адаптивних стратегій проєктування, здатних забезпечити гнучку взаємодію між простором і користувачем в умовах мінливих соціально-економічних і життєвих сценаріїв.*

Методологія. *У дослідженні використано теоретичний та аналітичний підхід, який включає аналіз сучасних наукових публікацій у сфері людиноцентричного та адаптивного проєктування. А також узагальнення існуючих практик, їх систематизація та класифікація трансформативних та адаптивних рішень.*

Результати. *У роботі визначено адаптивність і трансформаційність як ключові принципи людиноцентричного підходу в інтер'єрному проєктуванні. Було запропоновано класифікацію адаптивності за основними векторами, а саме: адаптивність до людини і адаптивність до простору. Сформовані та систематизовані підходи до трансформації інтер'єру – через рух, багатофункціональність і сприйняття, що дозволяє формувати різні інтер'єрні сценарії без радикального втручання в простір.*

Наукова новизна. *Вперше була сформульована дана класифікація просторової адаптивності за основними векторами. Розкриті систематизовані підходи до трансформації інтер'єру, що дозволяють розглядати їх як повноцінні альтернативні стратегії сучасного проєктування інтер'єру.*

Практична значущість. *Отримані результати можуть бути використані у практиці інтер'єрного проєктування для створення гнучких, адаптивних середовищ. Запропоновані підходи сприяють підвищенню комфорту, функціональної ефективності та психологічної стабільності користувача без необхідності значних перепланувань, що є значною перевагою у період складної економічної ситуації.*

Ключові слова: *дизайн інтер'єру, людиноцентричний дизайн, адаптивний дизайн, житловий інтер'єр, трансформація простору, інтер'єрний простір, сталий розвиток, інтер'єрна ієрархія, модульні системи, просторова оптимізація, сучасний дизайн, мультифункціональність, проєктна стратегія.*

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