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DIRECTIONS OF USING COLOR IN THE INTERIOR'S DESIGN OF SMART APARTMENTS FOR SINGLE-PERSON LIVING

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This paper explores the role of color in shaping the interior design of small-sized apartments intended for single-person living. It examines the directions for applying color in the design of compact living spaces. Three key strategies for designing the interiors of this type of housing using color are identified and described in detail: space division and zoning – using color to delineate various functional areas within the apartment, including the entrance, storage, dining area, living (guest) area, sleeping zone, and sanitary-hygienic spaces (bathroom and toilet); highlighting the composition center – creating a focal point within the apartment's space by incorporating vibrant paintings, a massive table, a brightly colored sofa, or a bold-patterned rug; color-based accentuation – using color in the interior design to emphasize important objects and areas to ensure a safe and comfortable living environment.

Key words: design, interior, design directions, residential building, small-sized apartment, color, zoning, composition.

INTRODUCTION

The rise of urbanization and single-person households has intensified the demand for smart apartments tailored to solitary living. These compact spaces require innovative design solutions to reconcile spatial limitations with psychological well-being. Color, as a non-structural yet potent design element, transcends mere aesthetics by shaping spatial perception, evoking emotional resonance, and enhancing functional organization. Grounded in environmental psychology theories and supported by global case studies, this paper examines how strategic color application addresses the unique spatial and emotional challenges faced by individuals living alone.

PURPOSE

This paper analyzes several samples of smart apartment designs for solitary living, using qualitative research methods and discussing them in detail with specific design cases. The samples include color for zoning in smart apartment interior's design, color as accentuation in the core areas of smart apartments, colors that attract attention in smart apartments. Each sample shows its unique spatial atmosphere and emotional characteristics through different color schemes.



RESULTS AND DISCUSSION

In smart apartments designed for solitary living, color critically shapes interiors by influencing spatial zoning and boundary definition. Through intuitive color coordination, it bridges physical environments with human perceptual experiences, ensuring design coherence across diverse color spaces. Strategically applied hues not only define functional areas but also evoke targeted emotional responses, aligning aesthetic intent with residents' psychological needs [1, 2, 3].

Color zoning is a non-partitioned division of space and function through visual differences in color. This approach is especially suitable for smart apartments with limited floor space. Color zoning is a design strategy that involves the division of a compact space into distinct functional areas. A case study of a Barcelona apartment illustrates this approach (Table 1, fig.1). In this residence, the division of work and recreation areas within a small open space is achieved through the use of color-based zoning, with walls and furniture in various hues such as orange and cream serving as visual and physical boundaries between these domains. Furthermore, this zoning approach satisfies the need for separation of activities (work and recreation).

Another salient design feature of color in the context of smart apartment interior design for solitary individuals is its capacity to accentuate the central focal point of interior space composition (Table 1, fig.2). The sample of smart apartment interior design employs a substantial area of gray to underscore the extent of the living room area, accompanied by the presence of paintings on the walls serves to redirect the user's visual focus to the center of the meeting area. In the design of smart apartments for individuals, color plays a pivotal role in accentuating the spatial composition of the interior, thereby enhancing the user's visual experience.




Color, as a critical element of environmental design, exerts a substantial psychological influence, capable of modifying the atmosphere of a space and eliciting specific emotional responses through the implementation of color, area, hue, and brightness. Consequently, the selection and integration of colors in residential guest spaces must consider not only aesthetic considerations but also the harmonious relationship between color and environmental psychology. This approach aims to create living spaces that not only soothe emotions but also foster vitality (Table 1, fig.3). It is noteworthy that the selection of materials exerts a substantial influence on the visual appeal and tactile sensation of the space, while the color can either enhance or modulate the psychological impact of the material. These colors serve to mitigate the austerity often associated with minimalist smart interiors, thereby fostering interaction and creativity. For individuals residing alone, the incorporation of these dynamic colors serves to mitigate feelings of isolation by establishing visual «conversation points» [4].

In summary, the discussion focuses on the sensory utility of color for users, which proves that color matching plays an important role in smart apartment. Additionally, attention should also be given to the relevant design concepts and principles in order to create a systematic and holistic residential space atmosphere, thereby enhancing people's spatial experience.



Table 1

Cases of color matching in the smart apartment interior's design
 for solitary people

№	Groups of elements	Interior design examples of smart apartments	Methods of design formation
1.	Color for zoning in smart apartment interior's design	 <p>Fig.1. Smart apartment, arch. «CaSA»,2022, Barcelona</p>	Use color to divide the interior space into different functional areas
2.	Color as accentuation in the core areas of smart apartments	 <p>Fig.2. Smart apartment in residential complex «Novopecherskie Lypky», arch. M. Chyrak, 2021, Kyiv</p>	Use color to highlight the center of composition in the interior space
3.	Colors that attract attention in smart apartments	 <p>Fig.3. Smart apartment 38 sq. m, arch. S. Balbek, Y. Dubrovskaya, 2020, Kyiv</p>	Use colors accents to attract attention



CONCLUSIONS

This study shows that color is a transformative tool in smart apartment design for people living alone. Color can be used to optimize the functional zoning of an apartment to make an otherwise small space compact, while satisfying the psychological need for separation of activities. At the same time, the rational use of focal color emphasis can enhance the sense of spatial hierarchy and more accurately meet the user orientation. Finally, the interaction of colors in large areas promotes emotional adaptation and reduces the sense of isolation, while also enhancing the resonance between the design and the user experience. Future research should explore the interaction of color with smart technologies to further personalize the solitary living experience.

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НАПРЯМИ ЗАСТОСУВАННЯ КОЛЬОРУ В ДИЗАЙНІ ІНТЕР'ЄРІВ СМАРТ КВАРТИР ДЛЯ ОДНООСІБНОГО ПРОЖИВАННЯ

У роботі досліджується роль кольору у формуванні дизайну інтер'єру малогабаритних квартир, призначених для одноосібного проживання. Розкрито напрями застосування кольору в дизайні інтер'єрів квартир невеликої площі. Виокремлено та детально описано три ключові стратегії-способи формування дизайну інтер'єру простору даного типу житла з використанням кольору. А саме: 1) розподілення, зонування простору квартири на різні функціональні зони: вхідна, зберігання речей, прийому їжі, вітальня (гостьова), сну, санітарно-гігієнічна (ванна та санвузол); 2) виділення центру композиції у просторі квартири, шляхом розміщення яскравих кольорових акцентів – картин, масивного столу, дивану або килиму, тощо; 3) привернення уваги кольором у дизайні інтер'єру на предметах, важливих зонах, з метою створення умов безпечного і комфортного проживання.

Ключові слова: дизайн, інтер'єр, напрями проектування, житлова будівля, малогабаритна квартира, одноосібне проживання, колір, зонування, композиція.