

Influence of Regionalism on Design in Residential Spaces

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Abstract

The correlation between living environments and individual lifestyles significantly influences behavior within interior spaces. As people interact with their surroundings, their behavior adapts to the design, layout, and ambiance of their homes. However, this connection remains elusive for many new Egyptian generations. They grapple with expressing their personal identities while simultaneously respecting regional cultural norms. In response to this challenge, our study delves into the impact of regional interior design on the quality of life (QOL) of Egyptian youth residing in Greater Cairo—a vibrant, multicultural area. Our primary objective centers around enhancing clients' QOL by transforming their built environment in alignment with regional nature and identity. To achieve this, we conducted a comprehensive cross-sectional survey spanning the years 2023 to 2024. During this period, we engaged participants in exploring their interest in regional identity, interior styles, and lifestyle choices. The findings were illuminating: despite a prevailing preference for practical modern or contemporary design, there exists a significant gap in awareness regarding the pivotal role interior design plays in shaping lifestyle. In light of these insights, we advocate for increased awareness of regional identity. By promoting its integration into interior design practices, we can enhance well-being and foster a stronger sense of community service. Our recommendations emphasize education and cultural awareness, particularly in the context of environmental and community-related aspects. Through these efforts, we aspire to create living spaces that not only reflect individual preferences but also contribute positively to the overall fabric of our multicultural society.

Keywords

Interior Design, Regional Identity, Quality of Life (QOL), Youth Egyptians, Multicultural Environment.

الملخص

يشكل التصميم الداخلي بيئتنا المبنية بشكل كبير، مما يؤثر على رفاهية الإنسان واستخدام الموارد (سميث، ٢٠١٩). واستجابة لهذا الدور الهام، تقدم الدراسة إطاراً تحليلياً مبتكراً لتقييم كفاءة وفعالية الحيزات الداخلية. حيث يدمج النهج المستخدم المقاييس الكمية مع الفهم العميق لتشريح عناصر الحيز الداخلي، مع التركيز على كيفية تأثير جودة عملية اتخاذ وصنع القرارات التصميمية على مستوى هذه القرارات (Brown, 2020) ومن خلال دراسة تحليلية دقيقة، نسعى إلى تعزيز عمليات صنع القرار. من خلال ما يشبه تشريح الحيز الداخلي وعناصره وعلاقة بعضها البعض، نكشف عن رؤى تمكن المصممين من

اتخاذ خيارات صائبة، تعمل على تحسين الجودة الشاملة لمشاريع التصميم الداخلي في نهاية المطاف، وقياس كفاءة مساحات التصميم الداخلي باستخدام نهج حسابي. من خلال تقييم العلاقة بين المخرجات والمدخلات، كما نهدف إلى تحسين استخدام الموارد مع تقليل الهدر، والاستفادة من مفاهيم القياسات الشبكية، واستكشاف العلاقات المعقدة بين عناصر التصميم المتنوعة وأنشطة المشروع ((Garcia, 2018)، باستخدام (التقييم الكمي، تأثير تشريح عناصر الحيز الداخلي، والقياس الشبكي). وتساهم نتائج البحث بشكل كبير في رفع مستوى عمليات صنع القرار ضمن التصميم الداخلي المستدام، وتعزيز الخيارات الواعية بيئياً.

الكلمات المفتاحية

الكفاءة، الفاعلية، التصميم الداخلي، اتخاذ القرار، القياس الشبكي

Introduction

The relationship between interior spaces and individual behavior is a multidimensional subject that includes various psychological and environmental factors. Focusing on Egypt, the research problem focused on the growing need to understand how residential interior design, influenced by regional environmental conditions, and how this can shape and enhance individual behaviors and lifestyles.

Previous researches indicates that interior architectural elements have a significant impact on human psychology and behavior, (Mahmoud, 2017) discusses the influence of identity, privacy, safety, health concerns, accessibility, open spaces, and aesthetic sense on the psychological well-being of residents. These factors are essential in creating a living space that not only reflects personal identity but also respects and incorporates regional characteristics. Furthermore, Tawil et al. (2021) explore the psychological responses to indoor design parameters through virtual reality, examining how different contours and styles within living spaces can affect emotions, behavior, and cognition. This study highlights the complexity of individuals' responses to interior design elements and underscores the importance of considering these factors when designing residential spaces.

In addition, the attitudes of interior design students towards environmental sustainability suggest a growing awareness of the need for sustainable practices in interior design that align with regional environmental conditions. This awareness is crucial in developing residential spaces that are not only personally meaningful but also environmentally responsible.

It is evident that the growing Egyptian generations may lack awareness of the intricate connection between their living environments and their behaviors. This gap in understanding can lead to a disconnect in expressing personal identity while honoring regional identity. The limited research on the impact of regionally adapted interior design on individual behavior and

environmental interaction underscores the necessity for further exploration in this field. By integrating regional environmental conditions into the design of residential spaces, there is potential to foster behavioral changes that positively affect both individuals and their surroundings.

In summary, the interior design of residential spaces plays a crucial role in shaping individual behavior and lifestyle. It is imperative to increase awareness among the Egyptian population about the significance of this relationship and to encourage the incorporation of regional identity into personal living spaces.

Objective

To enhance our clients' quality of life (QOL) as one of our most important responsibilities by improving their built environment according to the regional nature and identity.

Methods

A cross-sectional survey was conducted from 2023 to 2024, focusing on a random sample of youth Egyptians residing in Greater Cairo. The survey covered the following sections:

1. **Demographics:** Gathering information about participants' age, education, socioeconomic status, and cultural background.
2. **Personality and Interior Styles/Movements Awareness:** Assessing participants' awareness of interior design trends, styles, and movements.
3. **Regionalism Awareness and Its Impact on Lifestyle:** Investigating how participants perceive and value regional identity in interior design and its influence on their lifestyle choices.

Descriptive and inferential statistics were employed to analyze the survey data. We explored correlations between regional awareness, interior preferences, and lifestyle behaviors.

Literature review

Introduction to Interior Design and Human Behavior

Interior design significantly shapes human behavior within residential spaces. Researchers have explored this relationship extensively. For instance, studies by Ulrich and Zimring emphasize the impact of environmental factors on well-being. Their work highlights how elements like lighting, spatial layout, and color influence occupants' mood, stress levels, and overall satisfaction. Additionally, theories such as the Attention Restoration Theory (ART) by Kaplan,

as Kaplan underscore the role of natural elements (e.g., views of greenery) in promoting cognitive restoration and stress reduction.

Previous Theoretical frameworks have provided a lens through which we understand the interplay between interior design and behavior. Notably, the Transactional Model of Stress and Coping (TMSC) by Lazarus and Folkman sheds light on how individuals perceive and adapt to their environment. In the context of interior spaces, this model helps explain why certain design features (e.g., clutter, noise) evoke stress responses. Moreover, the concept of affordances, as discussed by Gibson, informs our understanding of how design elements offer cues for specific behaviors (e.g., a comfortable chair invites relaxation).

Factors Affecting Human Behavior in Interior Spaces

A comprehensive review of literature reveals several critical factors influencing behavior and quality of life (QOL) within residential interiors. For instance, the work of Evans and McCoy emphasizes the impact of daylight exposure on circadian rhythms and sleep quality. Similarly, the study by Hua et al. explores the effects of room layout (open-plan vs. segmented) on social interactions and privacy needs. These studies underscore the importance of considering both physiological and psychological factors when designing interior spaces.

Regional Identity and Interior Design

Regional identity plays a pivotal role in shaping interior design choices. Research by Cho and Lee investigates how cultural norms and historical context influence design preferences. Their findings highlight the significance of regional aesthetics, materials, and spatial arrangements. Additionally, the work of Al-Haddad and Kotnour examines how regional identity manifests in architectural elements, providing insights for interior designers seeking to create culturally resonant spaces.

On the other hand, incorporating regional identity into interior design is about reflecting the cultural heritage, natural environment, and traditional practices of a region within a space. For example:

- **Cultural Heritage:**

Incorporating the principles of Confucianism and Zen Buddhism, Chinese and Islamic countries home designs respectively emphasize harmony with nature and minimalist simplicity. Chinese interiors often feature natural materials and colors, alongside furniture arrangements that enhance spatial flow and openness, reflecting a balance that is both visually and mentally

soothing. Meanwhile, Islamic spaces prioritize uncluttered aesthetics, utilizing elements like intricate geometric patterns. These can be seen in wall art, tiles, and even furniture designs. The patterns are usually symmetrical and repetitive, creating a sense of harmony and balance. Using Arabic calligraphy in various elements such as wall hangings, cushions, and rugs. The calligraphy often includes verses from the Quran or other meaningful texts. Arches and domes are common in Islamic design. These can be incorporated into doorways, windows, and even as decorative elements on walls. Also Mosaic tiles are a staple in Islamic design, and usually feature intricate patterns and vibrant colors.

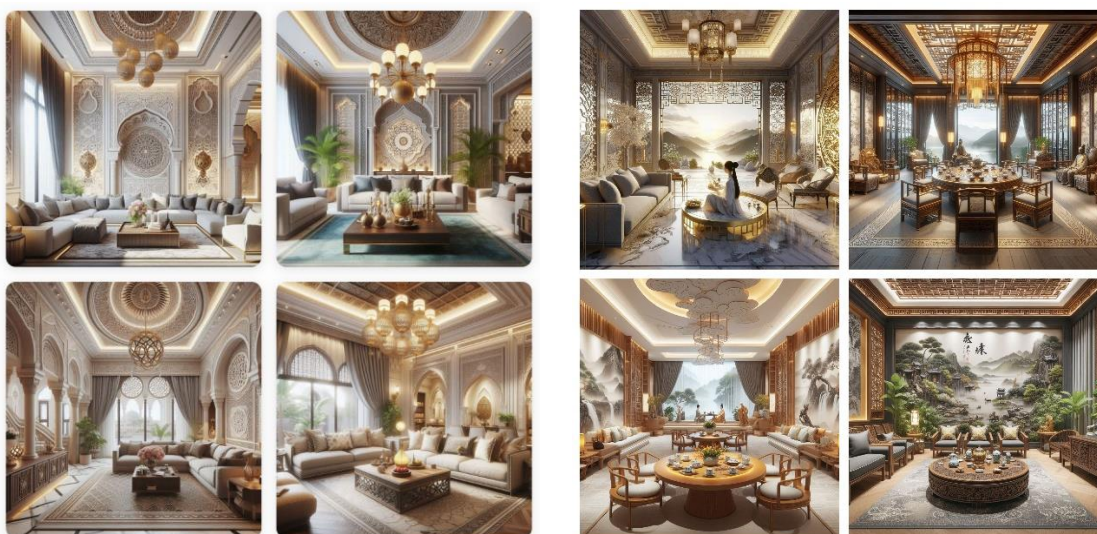


FIGURE 1 ISLAMIC CULTURAL HERITAGE INTERIOR DESIGN (TO THE LEFT)

FIGURE 2 CHINESE INTERIOR DESIGN WITH HARMONY BETWEEN HUMANS AND NATURE (TO THE RIGHT) – ALL IMAGES MADE BY THE RESEARCHER USING AI

- **Natural Environment:**

Serene Landscapes of Northern Europe, interior design is characterized by a minimalist and functional approach, where simplicity and practicality reign supreme. This style mirrors the region's climate, emphasizing the use of natural light and eco-friendly materials to create spaces that are both efficient and inviting. Contrastingly, in the diverse and vibrant regions of Oceania, traditional interior design is deeply rooted in indigenous cultures, utilizing locally sourced materials such as woven mats in Melanesia and palm fronds in Polynesia to craft interiors that are rich in texture and steeped in cultural significance. Together, these design philosophies from different corners of the world showcase how regional identity can be beautifully and sustainably expressed through interior design.



FIGURE 3 NORTHERN EUROPEAN MINIMALIST AND FUNCTIONAL INTERIOR DESIGN – ALL IMAGES
MADE BY THE RESEARCHER USING AI

• Traditional Practices:

Mediterranean courtyards, a hallmark of the region's architectural grammar, are ingeniously designed to mitigate the hot climate by channeling air over water basins, complemented by vegetation and paving that foster a seamless indoor-outdoor living experience. This bioclimatic approach is echoed in India, where the profound architectural legacy is interwoven into contemporary interior design, manifesting through the use of vivid colors, elaborate motifs, and indigenous crafts and textiles, creating spaces that are a tapestry of cultural richness and historical continuity. These design strategies not only reflect a deep understanding of regional identity but also demonstrate a sustainable adaptation to environmental and cultural contexts.

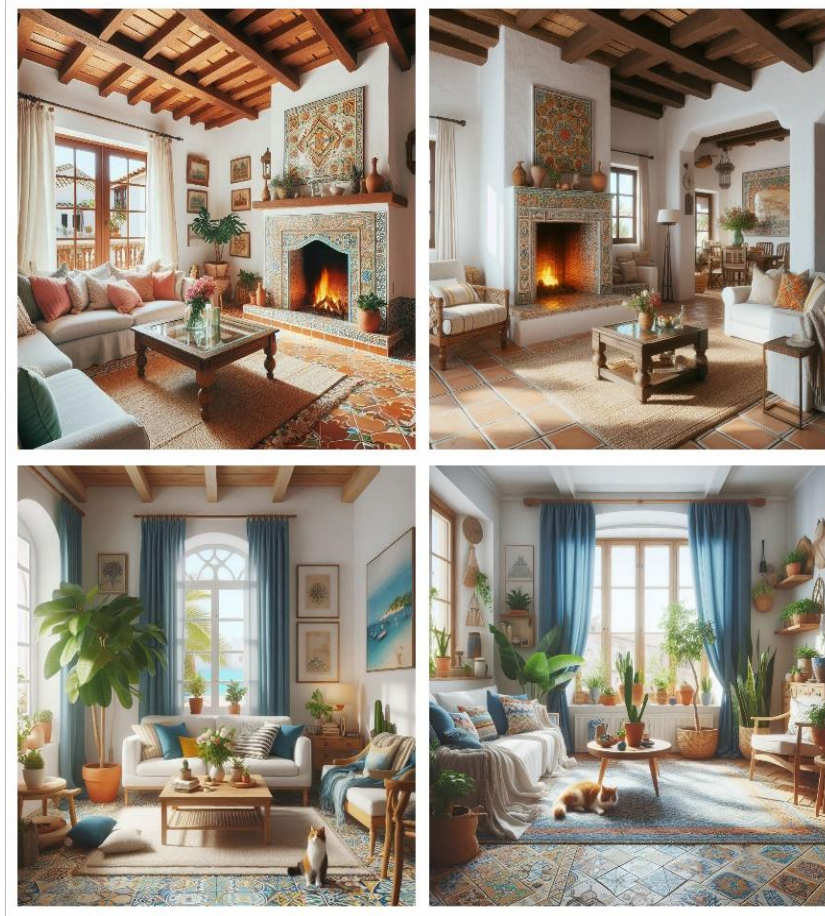


FIGURE 4 MEDITERRANEAN INTERIOR DESIGN – ALL IMAGES MADE BY THE RESEARCHER USING AI

These examples show that regional identity can be woven into the fabric of interior design through the thoughtful integration of cultural, environmental, and traditional elements. By doing so, designers can create spaces that are not only aesthetically pleasing but also deeply connected to the region's identity and heritage.

Health and Well-Being Considerations

The health implications of interior design are indeed well-documented and multifaceted. Interior design choices can significantly impact both mental and physical health (Calvin Dolatowski, 2021). For instance, neuroscientists have discovered that certain design choices, such as the type of flooring or lighting used, can improve mental health, decrease stress and fatigue, and even spark creativity.

One of the key concepts in this area is biophilic design, which was popularized by Stephen R. Kellert and others. Biophilic design emphasizes the integration of natural elements into built environments to enhance occupants' well-being. The idea is to create a connection between

occupants and nature, promoting a sense of respect and enriching relationships at all levels. This approach is not only beneficial for human well-being but also for the planet's health. In addition to biophilic design, other factors such as indoor air quality, acoustics, and ergonomic furniture have been shown to have a significant impact on physical health. Studies have shown that poor indoor air quality can lead to a decrease in well-being, comfort, and productivity. Similarly, acoustics can affect concentration and stress levels, while ergonomic furniture can prevent musculoskeletal disorders.

Privacy, Safety, and Security

Privacy and safety are fundamental considerations in interior design. The work of Zeisel discusses the design of dementia-friendly spaces, emphasizing safety features (e.g., non-slip flooring, and clear pathways). Additionally, research by Nasar and Julian explores privacy preferences in various interior contexts, informing decisions related to window placement, room divisions, and sound insulation. Cultural variations in privacy expectations are also relevant, as highlighted by Kim and Kaplan.

Aesthetic Preferences and Emotional Responses

Aesthetics, a significant branch of philosophy that deals with the nature of beauty and taste, plays a crucial role in shaping our emotional responses within interior spaces. The design of a room, the colors chosen, the arrangement of furniture, and even the type of materials used can all contribute to the feelings evoked when one enters the space.

A study conducted by Yannick Joye and Agnes van den Berg provides an insightful exploration into the emotional impact of natural versus artificial environments. Their research suggests that exposure to natural elements and settings can trigger restorative responses, which are adaptive traits originating from our species' long evolutionary history in natural environments. This underscores the importance of incorporating elements of nature into our living spaces to promote well-being and emotional health.

Moreover, regional aesthetics, which are heavily influenced by cultural heritage, can evoke distinct emotions (Joye, Y., & van den Berg, A., 2011). For example, Mediterranean design, known for its earthy hues, rustic textures, and incorporation of natural light, often evokes feelings of warmth and comfort. The use of terracotta, ochre, and sandy beige colors, combined with the integration of natural elements like plants and water features, can create a serene and inviting atmosphere (Yang et al. 2022).

On the other hand, Scandinavian design, characterized by its minimalistic approach and emphasis on functionality, often evokes a different set of emotions. The use of neutral color palettes, clean lines, and light-filled spaces devoid of clutter can create a sense of tranquility and peace. Moreover, the incorporation of natural materials like wood and cotton, along with the strategic use of lighting, can further enhance the calming and soothing ambiance associated with this design style.

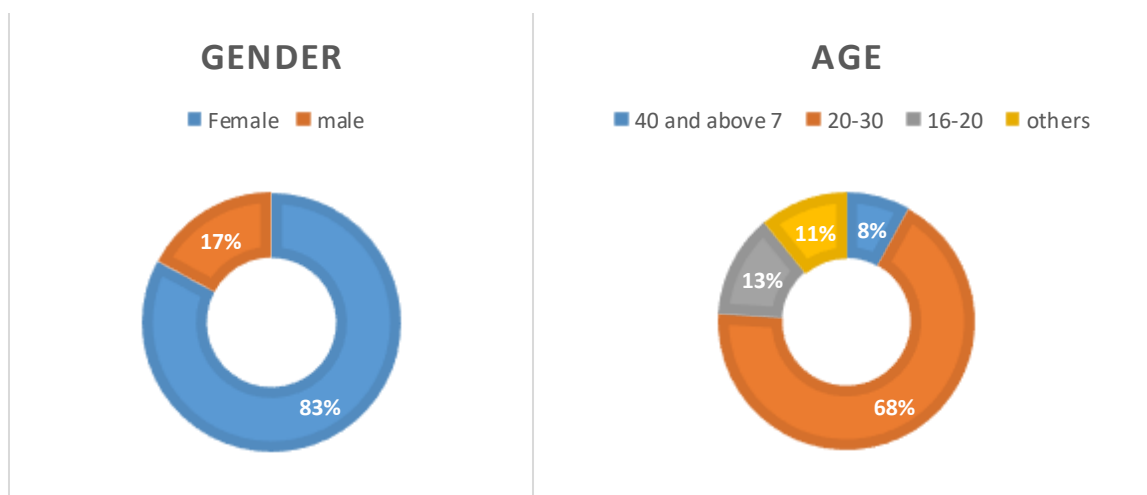
Accessibility and Universal Design

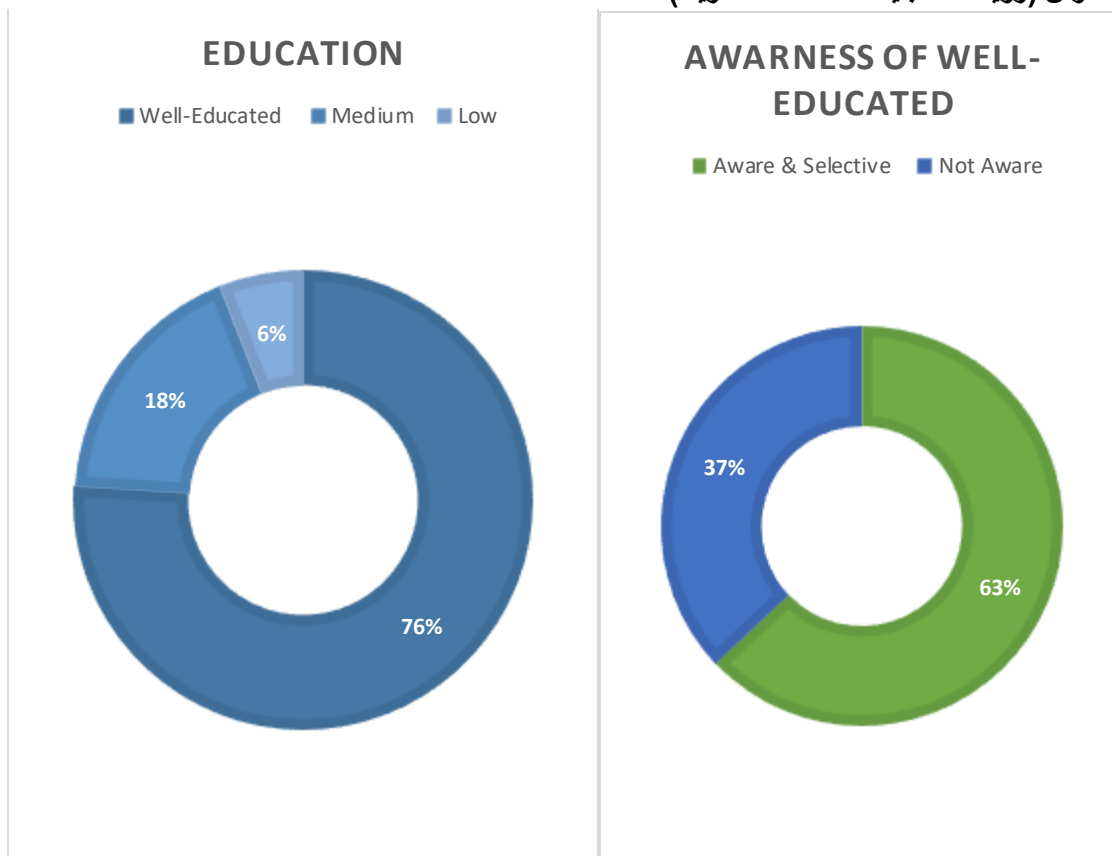
Universal design principles ensure that interior spaces accommodate diverse users. The work of Preiser and Ostroff outlines strategies for creating accessible environments, including considerations for mobility, sensory impairments, and aging populations. Regional variations in accessibility standards should be acknowledged, as discussed by Imrie and Hall.

Case Studies and Empirical Research

Case studies and empirical research provide practical insights. Notable examples include the work of Gehl, who examines the impact of urban design on pedestrian behavior, and the research by Nasar and Kang, which investigates the effects of street design on social interactions. These studies demonstrate the real-world implications of design choices.

On the same manner, a comprehensive cross-sectional survey spanning the years 2023 to 2024. Engaging more than 250 youth Egyptian participants in exploring their interest in regional identity, multicultural environment, interior styles, and lifestyle choices. The findings were illuminating, despite a prevailing preference for practical modern or contemporary design, there exists a significant gap in awareness regarding the pivotal role interior design plays in shaping lifestyle. Results are shown in the following pie charts.





94% of low to medium cultural, social, and economic levels have shown lack of interest in interior design trends. The results has shown unclear understanding for the relation of the chosen design style and elements to the requirements of quality of life (QOL).

Conclusion and Implications

There is a need for interdisciplinary collaboration among designers, psychologists, and urban planners. The data from our study underscores this need. We found that demographic factors such as gender, age, and education level significantly influence design preferences. For instance, younger, well-educated females have shown a strong preference towards practical modern, contemporary design and multicultural environments.

However, we also noted a lack of interest in interior design trends among participants from low to medium cultural, social, and economic levels. This suggests that current design trends may not be effectively reaching or appealing to this demographic, indicating a potential area for improvement in our field.

By integrating regional identity, health considerations, and user preferences, we can create harmonious interior spaces that enhance well-being and foster a sense of place. Our data suggests that a shift towards modern or contemporary design may be occurring, potentially

indicating a move away from traditional regional aesthetics. However, further research is needed to confirm this trend and understand its implications.

In conclusion, our findings highlight the importance of considering a diverse range of factors in interior design. By doing so, we can ensure that our designs not only reflect the aesthetic preferences of various demographics but also contribute to their well-being and sense of identity. This approach will enable us to create residential spaces that are not only visually appealing but also promote positive behavioral outcomes.

Results

Our findings reveal the following:

1. **Interior Style Preferences:** A majority of well-educated youth Egyptians (approximately 63%) favor practical modern or contemporary design. They prioritize expressing their personal culture or way of life over presenting regional identity (with no contribution to their well-being and sense of identity), while 37% have shown moderate awareness and selectivity. This suggests a correlation between education level and preference for multicultural environments modern or contemporary design in a multicultural environment styles. It could be inferred that well-educated individuals may have more exposure to or appreciation for these design styles.
2. **Socioeconomic Factors and Interest in Design Trends:** On the other side 94% Egyptian youth with low to medium cultural, social, and economic levels, there is a lack of interest in interior design trends, neglecting regional identity. Many view it as an unnecessary luxury rather than a tool for lifestyle enhancement. However (as an important note) 6% of the participants have shown high selectivity, cause of belonging to their home cities out of great Cairo. This could indicate that interest in interior design trends is influenced by socioeconomic status. It could also suggest that these design trends are not effectively reaching or appealing to this demographic.
3. **Gender and Age Factors:** With 82% of the participants being female and 94% under the age of 30, it suggests that younger females may be more interested or involved in the field of interior design. This could potentially influence the design trends towards the preferences of this demographic.
4. **Regionalism and Design Preference:** While the data doesn't directly address regionalism, the high preference for modern or contemporary design among well-

educated participants could suggest a shift away from traditional regional aesthetics.

Further research could explore whether this trend is consistent across different regions.

In other words, Greater Cairo suffers from a random urban design with an absence of identity and it has a critical need to improve the awareness of the impact of regional and local environment on citizens' health and well-being and to what extent it could be enhanced with regional/local interior design identity. So the researcher recommends:

- Increasing the awareness of our regional identity and how it could enhance our way of life through interior design by increasing the level of education and cultural awareness of individuals, especially in the aspects of environmental and community service.
- Future studies should focus on the development of interior design strategies that promote psychological well-being, reflect personal and regional identities, and contribute to environmental sustainability.

References

1. Altomonte, S. (2019). *Architecture and Well-Being: Designing Spaces for Human Flourishing*. Routledge.
2. Cho, I. S., & Lee, J. H. (2015). Cultural Identity and Interior Design: A Comparative Study of Korean and American Designers. *International Journal of Design*, 9(1), 1-14.
3. Einifar, A. (n.d.). Interior Architectural Elements that Affect Human Psychology and Behavior.
4. Einifar, A. (n.d.). Psychological Demands of the Built Environment, Privacy, Personal Space and Territory in Architecture.
5. Einifar, A. (n.d.). When the most intimate of these private areas is intruded by other individuals, the person starts to act defensively or to say at least extraordinarily.
6. Evans, G. W., & McCoy, J. M. (1998). When Buildings Don't Work: The Role of Architecture in Human Health. *Journal of Environmental Psychology*, 18(1), 85-94.
7. Gehl, J. (2010). *Cities for People*. Island Press.
8. Gifford, R. (2007). *Environmental Psychology: Principles and Practice*. Optimal Books.
9. Harrouk, C. (2020). Psychology of Space: How Interiors Impact our Behavior?
10. Hescong, L. (2003). *Daylighting in Schools: An Investigation into the Relationship between Daylighting and Human Performance*. California Energy Commission.
11. Joye, Y., & van den Berg, A. E. (2011). Is Love for Green in our Genes? A Critical Analysis of Evolutionary Assumptions in Restorative Environments Research. *Urban Forestry & Urban Greening*, 10(4), 261-268.
12. Joye, Y., & van den Berg, A. E. (2011). Is love for green in our genes? A critical analysis of evolutionary assumptions in restorative environments research. *Urban Forestry & Urban Greening*, 10(4), 261-268. <https://doi.org/10.1016/j.ufug.2011.07.004>
13. Kaup, M. (2018). *Designing for Behavior: Applying Environmental Psychology to Interior Design*. Routledge.

14. Kellert, S. R., Heerwagen, J. H., & Mador, M. L. (2008). *Biophilic Design: The Theory, Science, and Practice of Bringing Buildings to Life*. Wiley.
15. Kopec, D. A. (2006). *Environmental Psychology for Design*. Wiley.
16. Mahmoud, H. T. H. (2017). Interior Architectural Elements That Affect Human Psychology and Behavior. *ARCHive*, 1(1).
17. MDPI. (2021). The Living Space: Psychological Well-Being and Mental Health in Virtual Reality Environments. *International Journal of Environmental Research and Public Health*, 18(23), 12510
18. Nasar, J. L., & Julian, D. A. (1995). The Psychological Effects of Interior Design. *Journal of Interior Design*, 21(1), 1-12.
19. Nasar, J. L., & Kang, J. (2009). The Impact of Street Scale on Walking Behavior in City and Campus. *Landscape and Urban Planning*, 92(1), 6-12.
20. Preiser, W. F. E., & Ostroff, E. (2001). *Universal Design Handbook*. McGraw-Hill.
21. Spatial Redesign Examples on Boosting the Identity of a Region Through...
https://link.springer.com/chapter/10.1007/978-3-031-51038-0_29.
22. Tawil, N., Sztuka, I. M., Pohlmann, K., Sudimac, S., & Kühn, S. (2021). The Living Space: Psychological Well-Being and Mental Health in Response to Interiors Presented in Virtual Reality. *International Journal of Environmental Research and Public Health*, 18(23), 12510.
23. The language of regionalism | In design Live.
<https://www.indesignlive.com/projects/regionalism-in-design>.
24. Ulrich, R. S. (1984). View through a Window May Influence Recovery from Surgery. *Science*, 224(4647), 420-421.
25. Vaux, D. E., & Wang, D. (2021). *Research methods for interior design applying interiority*. New York and London: Routledge. ISBN 978-0-367-13949-0 (paperback).
26. Vaux, D. E., & Wang, D. (Eds.). (2020). *Research Methods for Interior Design: Applying Interiority*. Taylor & Francis.
27. Yang Wei, Chen Qiuxia , Huang Xiaoting , Xie Mei , Guo Qiuqi , (2022). How do aesthetics and tourist involvement influence cultural identity in heritage tourism? The mediating role of mental experience. *Frontiers in Psychology*. V.13, DOI=10.3389/fpsyg.2022.990030
28. Zeisel, J. (2006). *Inquiry by Design: Environment/Behavior/Neuroscience in Architecture, Interiors, Landscape, and Planning*. W. W. Norton & Company.
29. https://biophilicdesign.umn.edu/sites/biophilic-net-positive.umn.edu/files/2021-09/2015_Kellert%20The_Practice_of_Biophilic_Design.pdf
30. Cultural Influences on Interior Design: A Global Perspective.
<https://www.violabehringer.com/blog/cultural-influences-on-interior-design-a-global-perspective>.
31. Global Influences on Interior Design - Design Institute of San Diego.
<https://www.disd.edu/blog/global-influences-on-interior-design/>.
32. How Interior Design Impacts Your Mental Health | Desis: Senior Thesis (osu.edu)
33. The Role of Interior Design in Enhancing Happiness and Comfort at the Girls' College of Science and Arts, King Khalid University, Saudi Arabia. (n.d.). MDPI.

نوفمبر ٢٠٢٤

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