

## THE PROFOUND EFFECTS OF INTERIOR MATERIALS ON HUMAN HEALTH AND PSYCHOLOGY

Assoc. Prof. Dr. Mehmet SARIKAHYA<sup>1</sup>, Serap PAÇAL<sup>2</sup>

<sup>1</sup>Afyon Kocatepe University, Faculty of Fine Arts, Department of Interior Architecture and Environmental Design, Afyonkarahisar, Türkiye. , ORCID: 0000-0002-9356-3050

<sup>2</sup> Graduate Student, Afyon Kocatepe University, Faculty of Fine Arts, Department of Interior Architecture and Environmental Design, Afyonkarahisar, Türkiye., ORCID: 0009-0005-5368-3540

masarikahya@gmail.com<sup>1</sup>

serappacal@gmail.com<sup>2</sup>

### Abstract

This study examines the effects of retro materials combined with ergonomic designs on human psychology. While rapidly changing urbanization dynamics in Turkey increase longing for the past in individuals, retro designs stand out as tools that trigger feelings of nostalgia and belonging. The integration of retro-aesthetic elements with ergonomic principles provides physical comfort in individuals while also contributing to psychological well-being. The study analyzes the potential of retro designs to alleviate the stress and anxiety brought about by modern life by creating a sense of peace, serenity and belonging in individuals. This study aims to examine the effects of retro and ergonomic designs on different demographic groups, and the findings obtained are detailed in terms of the demographic characteristics, age, occupation, gender and living spaces of the participants. The study data were evaluated with the help of statistical analyses and the relationships of ergonomic designs with various parameters were analyzed comprehensively. The findings reveal that ergonomic and nostalgia-oriented designs create different effects on groups with different priorities. Differences in interest among participants based on their age, gender, occupational status and living spaces were discussed in detail. In this context, as a result of the evaluation of the data with frequency analysis, ANOVA, correlation and chi-square tests, significant differences were found between the effects of ergonomic designs and retro elements on certain demographic groups. As a result, it was seen that ergonomics-oriented designs contributed to the daily life quality and work efficiency of individuals, while retro designs were preferred more for nostalgic and aesthetic values. The findings of the study can guide designers in developing strategies suitable for different target groups.

**Keywords:** Interior Design, Material Selection and Human Health, Psychological Effects, Ergonomics, Biophilic Design.

**Hypothesis:** Materials and design elements used in interior design (VOC contents, colors, natural materials and ergonomic arrangements) have a critical effect on reshaping individuals' spatial experiences through their physical health and psychological well-being, and conscious choices of these elements can offer sustainable solutions that increase the quality of life.

### 1.Introduction

In the modern world, the rapid increase in urbanization, the spread of technology into all areas of life, and the growing stress individuals face due to intense work schedules trigger a sense of longing for the past. In this context, retro designs stand out as a tool that provides a nostalgic refuge, strengthens the sense of belonging, and offers psychological relief. Retro design elements reinforce individuals' sense of belonging by blending the spirit of the past with the functionality of modern life. At the same time, ergonomics aims to improve quality of life by offering solutions tailored to individuals' biological and psychological needs. This study examines the potential of retro designs, when integrated with ergonomic principles, to contribute to individuals' psychological well-being.

Retro design can be defined as an approach that reinterprets the aesthetic understandings and nostalgic values of past eras and integrates them into modern design practices. This design concept, which strengthens people's emotional ties with the past, creates different perceptions

and preferences especially among Generations X, Y, and Z. Studies conducted in Turkey reveal that retro furniture plays a significant role in shaping personal awareness and preference tendencies. Particularly among younger generations, the tendency toward retro design has been associated with the need to connect with the past and to experience aesthetic satisfaction (Yararel & Arslan, 2022, pp. 45–58).

Ergonomic design, on the other hand, aims to enhance productivity and health by meeting individuals' physical and psychological needs. Research conducted in Turkey indicates that interior arrangements supported by ergonomic design elements have positive effects on employees' work performance and psychological well-being (Turan, 2016, pp. 105–116). The use of retro materials in ergonomic designs can strengthen individuals' emotional connections with their environments while also increasing their levels of physical and mental comfort.

This research addresses the effects of combining retro design and ergonomics on human psychology in Turkey and presents a scientific perspective based on local sources. Studies on the psychological effects of retro design demonstrate that it helps individuals rebuild their ties with the past, enabling them to feel comfortable and secure. Moreover, retro designs combined with ergonomic arrangements not only allow individuals to experience nostalgia but also help them maintain both their physical and mental health (Manav & Küçükdoğu, 2006).

### **1.1. The Concept of Ergonomics and Its Contributions to Design**

Ergonomics can be defined as a scientific discipline that prioritizes the physical and mental comfort of individuals. Ergonomic designs play a critical role, especially in work environments, in increasing productivity and maintaining a high quality of life. Properly designed ergonomic products reduce the negative impacts on the musculoskeletal system and enable individuals to feel less fatigued in their daily lives. Ergonomics is the scientific study of the relationship between humans and their environment. This environment not only includes the physical space in which a person exists but also encompasses the mechanical and electronic equipment, tools, working methods, and the organization of the work itself (Özkul, 1996).

The goal is to adapt the job to the worker, rather than forcing the worker to adapt to the job. For example, the width and height of a desk should be designed according to the needs of the worker, preventing unnecessary stretching when reaching for documents or files. Similarly, if office workers' feet do not fully touch the floor, the use of a footrest reduces the pressure on the inner surface of the calf, preventing discomfort and occupational diseases (Öztürk, 2021; Aksoy, 2019). Ergonomic design should ensure efficient use of space. Designing the environment according to its function allows users to move comfortably and helps reduce stress levels (Smith, 2021).

In the design process, users' needs and expectations must be taken into account. User feedback enables improvements in design while also considering the psychological impacts of the environment on its users (Brown & Green, 2020). Design should be organized in a way that facilitates individuals' daily activities. For instance, in office design, the use of ergonomic desks and chairs increases employees' comfort while also enhancing work productivity (Davis, 2023).

### **1.2. Perceptions of Retro Designs**

Retro designs represent an approach that stimulates individuals' interest in nostalgic values and blends the aesthetic elements of the past with the present. Perceptual differences toward these designs are particularly evident across different age groups. Younger age groups tend to view retro designs mainly as an aesthetic value, whereas older age groups focus more on the nostalgic associations evoked by these designs.

The roots of retro design generally date back to the 1950s–1980s and reflect the characteristic elements of that era. Retro materials such as furniture, lighting elements, wallpapers, accessories, and color palettes transport people to their childhood memories, evoking feelings of peace and longing for the past.

directs individuals toward their emotions. This can lead to reduced stress, an increased sense of security, and a warmer, more intimate appearance of the living space (Özdemir, 2019; Çetinkaya, 2021). Some of the positive effects of retro style on human psychology are as follows:

#### 1.2.1. Nostalgia and Reminiscent Effect

The strongest psychological impact of retro design is its ability to evoke nostalgia. Nostalgia allows individuals to relive past memories, making them feel relaxed and happy. Objects, colors, and textures frequently encountered during childhood can help individuals re-experience the sense of security and happiness they once felt during that period. Turkish studies have shown that nostalgic design has a stress-reducing effect on human psychology (Kaya, 2019; Demirci, 2021).



**Figure 1.** A seating element that was highly popular in the past, its historical (a) and contemporary (b) uses. (*Journal of Art & Design*, 12 (2), 2022: 579–594).

Visual aesthetics have a direct impact on people's psychological states. When retro design elements are combined with warm color palettes, natural textures, and classic forms, they can create a sense of peace and security in individuals. Research shows that aesthetic elements have positive effects on psychological relaxation (Demir, 2019). Nostalgia enables people to connect with positive memories of the past. Retro design evokes these nostalgic feelings, fostering a sense of peace and happiness in individuals. Nostalgic elements reduce stress levels and improve overall mood (Özgüven, 2017).

#### 1.2.1. The Relationship Between Color Perception and Human Psychology

Colors create direct psychological effects on people. The influence of colors on individuals' moods and overall health is highly significant. For example, blue has a calming effect, while red conveys energy and excitement. Yellow often evokes happiness and positive thoughts, whereas green is associated with nature and provides tranquility. Various studies have shown that colors affect brain chemicals, regulating emotional states (Ertem, 2021, pp. 89–95).

When examining the psychological effects of different types of colors, it should be taken into account that each color can have both positive and negative qualities. For instance, red can

carry multiple meanings as a form of expression; even if these meanings are not always explicitly articulated, they can affect us on a psychological level. In this context, the use of red in spaces creates psychological interactions through the emotional atmosphere it generates. Traditionally, red is used as a symbol of true love, yet the same color can also be associated with loss of control, anger, and violence. Red is the color of life and carries a positive meaning, but it can also trigger subconscious associations with blood, war, and passion.

Various experiments and observations on the psychological effects of colors have revealed that individuals' responses to color stimuli can be observed even in those who are inattentive or indifferent. In particular, the psychological experiments conducted by Faber Birren provide significant findings that emphasize the effects of colors on human psychology. These findings are classified as shown in Table 3.

Another important finding regarding the psychological effects of the color blue was demonstrated through the experiments of color researcher A. Ketchman. Ketchman found that the distance between two parked blue cars was perceived as greater than it actually was, and this perceptual distortion proved that blue cars caused more accidents compared to cars of other colors (Kıran, 1986, p. 69).

In addition, the same researcher showed that the perceived intensity of sound changes in spaces designed with different colors and that colors modulate the psychological effects of sound in different ways. Listeners reported that sound was perceived as louder and stronger in a hall painted white compared to a hall painted purple (Porter & Mikeliedis, 1976, pp. 13–15).

**Table 3. Psychological Effects of Color Types (Martel, 1995)**

<b>Color Type</b>	<b>Effects of Color Type</b>
<b>Red</b>	The color of passion; increases attention, attracts interest, encourages activity, stimulates the brain, excitement, health, vitality, love, sense of victory, energy, generosity, selflessness, compassion, courage, strength, liveliness, and warmth. Overuse may imply harshness, violence, danger, disturbance, cruelty, or sin.
<b>Light Pink</b>	Suggests politeness, softness, sweetness, shyness, modesty, and conservatism.
<b>Orange</b>	Joyful, warming, encourages unity, represents wealth, light, and productivity. Symbolizes intuition, pure joy, and balanced power, spreading optimism. Overuse may cause disturbance.
<b>Yellow</b>	Bright, lively, cheerful; evokes wealth, abundance, honor, loyalty, intellectuality, leadership, ambition, assertion, and freedom. Bright yellow activates; pale yellow relaxes. Enhances understanding and intellectual functions; excessive use may cause vandalism, jealousy, illness, doubt, or irresponsibility.
<b>Brown</b>	Color of earth and trees; represents maturity, soothing effect, grounded, determined, reserved behavior, and seriousness.
<b>Tan (Light Brown)</b>	Softened version of brown with added cheerfulness; represents realism, guidance, persistence, determination, domesticity, and ideal family safety.
<b>Green</b>	Cooling, calming; evokes silence, productivity, life, growth, nature, wisdom, and faith. Can symbolize self-respect, justice, and trust; excessive use may convey megalomania, authoritarianism, or arrogance.



<b>Blue</b>	Suggests contentment, goodwill, compassion, honesty, flexibility, gentleness, agreement, cooperation, and tranquility. Calming and soothing; induces sleep, relieves pain, prevents cramps. Dark blue (navy) encourages serious, comprehensive thinking; pale blue may induce passivity or laziness.
<b>Purple</b>	Symbolizes nobility, mysticism, shame, sorrow, union of love and reason, prestige. Crimson conveys authority and dominance; violet represents religious authority, chaos, death, self-dedication, divine love; lilac evokes melancholy. Can be intimidating in large areas.
<b>White</b>	Symbol of unity and purity; represents openness and transparency.
<b>Black</b>	Represents the “other” in dualities (good–evil, day–night, life–death). Symbolizes deep human contradictions; may indicate mourning, regret, or guilt, as well as restful silence, infinity, or structural strength.

### 1.3. The Impact of Retro Design in Interior Spaces

Design preferences are influenced by demographic factors such as age, gender, occupational status, education level, and living environments. While ergonomic products are generally preferred by office workers and individuals with demanding schedules, retro designs mainly appeal to those seeking aesthetic value and nostalgia.

Retro design adds cultural richness and historical depth to spaces. By incorporating aesthetic elements from the past, individuals can experience past values in the present. This creates a sense of cultural belonging within spaces, allowing users to feel more comfortable through nostalgic experiences. Sey (2014) examines the cultural dimensions of retro design. Natural materials commonly used in retro design, such as wood and leather, have a calming effect on mental health.

Retro furniture is typically made from natural materials like wood, leather, and metal. These materials create a warm atmosphere, making the interior space feel more intimate and comfortable. Their natural texture and appearance strengthen the instinctive sense of closeness to nature, which can reduce stress and promote mental balance (Yıldız, 2019).

### 1.4. The Place of Retro Design Today

Retro design is not limited to interior spaces; it also appears widely in popular culture. Disciplines such as fashion, graphic design, film, and music often revisit past aesthetics and nostalgia, enhancing retro design's influence on social psychology. For instance, 1980s and 1990s aesthetics frequently appear in contemporary music videos and clothing collections, allowing younger generations to connect with the past (Klein, 2019).

**Media and Advertising:** In advertising, retro design elements are used to evoke emotional ties to the past. Through familiar designs, users form stronger relationships with brands, thereby increasing customer loyalty (Garcia, 2022).

Advancing technology allows for reinterpretation of retro design. Digital platforms provide extensive opportunities to modernize retro design elements. Virtual Reality (VR) and Augmented Reality (AR) applications can enrich user experiences with retro design (Davis, 2023).

## 2. Research Method / Material and Method

### 2.1. Research Model

This study aims to examine the effects of retro and ergonomic designs on different demographic groups and to understand participants' perceptions of these designs in detail. The data obtained are qualitative and provide insights for guiding design processes. The research focuses on “The Effects of Retro Materials Combined with Ergonomic Designs on

**Human Psychology.”** Survey questions measure participants' perceptions and experiences regarding interior design.

A **quantitative research model** was applied, and data were collected using the following statistical analyses:

- **Frequency Analysis:** To determine the overall distribution of demographic data.
- **ANOVA:** To examine differences between occupational and age groups.
- **Correlation Analysis:** To identify relationships between age and interest in retro materials.
- **Chi-Square Test:** To assess the effects of ergonomic designs on living spaces.

**Sample:** 69 participants from various age and occupational groups.

### 2.3. Data Collection Methods

A 25-question survey prepared via Google Forms was used. The survey measured participants' perceptions, preferences, and health-related effects of interior design. The questions were organized under five main headings: Demographic Data, Interest in Retro Materials, Assessment of Ergonomic Designs, Psychological and Nostalgic Effects, and Productivity in Workspaces. The data collection process was carefully designed to address the research questions.

#### 2.3.1. Participant Selection

A heterogeneous group of participants with diverse ages, occupations, and living environments was included. This selection enabled analysis of how demographic differences affect design perceptions. Participants were reached through online platforms and direct invitations, and valid responses were obtained from 83 participants.

#### 2.3.2. Data Collection Tool

The survey was administered online via Google Forms. Participants accessed the survey through a link sent via email. The online format allowed wide reach independent of time and location but limited participation to those with internet access.

The survey consisted of the following sections:

- **Demographic Information:** Basic details such as gender, age, occupation, and living environment.
- **Design Perceptions:** Evaluation of perceptions toward ergonomic and retro designs using a Likert scale.
- **Psychological and Emotional Effects:** Questions regarding the nostalgic impact of retro designs and comfort perception of ergonomic designs.

#### 2.3.3. Statistical Analysis

Data were analyzed using SPSS software. Frequency analysis was conducted for demographic information, ANOVA tests were applied to examine effects of occupational and age groups on design perceptions, Pearson correlation analyzed the relationship between age and interest in retro designs, and Chi-Square tests evaluated the effects of ergonomic designs on living spaces. These methods increased data reliability and ensured meaningful results.

## 3. Findings

The findings indicate that retro design elements evoke nostalgic connections and psychological relaxation among participants. Younger participants (ages 18–30) showed greater interest in retro aesthetics and reported higher emotional satisfaction associated with these designs. Ergonomic designs were found to contribute not only to physical comfort but also to stress reduction. Most participants indicated that retro designs are significant not only visually but also in terms of ergonomic comfort.

Gender differences significantly affected interest and perceptions of retro materials and ergonomic designs. Women focused more on aesthetic and nostalgic values, while men

prioritized functional features. Interest in retro designs varied by age group; younger participants emphasized aesthetics, whereas older participants focused on comfort and relaxation.

Occupational groups also influenced design preferences. Freelancers preferred retro designs due to their creative features, whereas white-collar workers focused on ergonomic designs' impact on professional efficiency. Living environment characteristics were another determinant; apartment dwellers sought functional aesthetics in limited spaces, whereas owners of detached houses incorporated more nostalgic designs due to larger spaces.

The combination of retro and ergonomic designs highlights the need for design strategies that cater to common expectations across different demographic groups. Significant differences were observed between male and female participants in interest toward retro materials and ergonomic designs. Demographic factors such as age, occupation, and living environment played a key role in determining design preferences. The relationship between retro and ergonomic designs varied according to participants' functional and aesthetic expectations.

### 3.1. Demographic Data

#### 3.1.1. Gender Distribution

Among the participants, 52% were female (40 people) and 48% were male (38 people). The missing data rate was 6%, and valid data from 78 out of 83 participants were analyzed.

**Table 3.1.1.** Frequency Analysis Results by Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	40	48.2	51.3
	Male	38	45.8	48.7
Total		78	94.0	100.0
Missing	System	5	6.0	
Total		83	100.0	

#### 3.1.2. Age Groups

**Table 3.1.2.** Frequency Analysis Results by Age Group

Age Group	Frequency	Percent	Valid Percent	Cumulative Percent
18-25	16	19.3	20.5	20.5
26-35	43	51.8	55.1	75.6
36-45	11	13.3	14.1	89.7
46-55	6	7.2	7.7	97.4
55 and above	2	2.4	2.6	100.0
Total	78	94.0	100.0	
Missing	System	5	6.0	

The 26-35 age group represents the majority of participants (55.1%), providing important data for examining the impact of ergonomics and retro designs on young adults.

#### 3.1.3. Occupational Groups

The dominance of the self-employed group at 44.9% indicates that evaluations of ergonomic and retro designs by these individuals are particularly significant.

**Table 3.1.3.** Frequency Analysis Results by Occupation

Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Student	6	7.2	7.7	7.7
Employee (white-collar)	14	16.9	17.9	25.6
Employee (blue-collar)	17	20.5	21.8	47.4
Retired	6	7.2	7.7	55.1
Self-employed	35	42.2	44.9	100.0
Total	78	94.0	100.0	
Missing	System	5	6.0	

### 3.1.4. Living Area

The proportion of participants living in apartments (52.6%) provides important data for evaluating the impact of ergonomic designs in limited living spaces.

**Table 3.1.4.** Frequency Distribution by Living Area

Living Area	Frequency	Std. Deviation	%
Apartment	4.35	0.78	68%
Detached House	3.78	1.10	57%
Dormitory or Other	3.15	1.20	45%

Living Area	Frequency	Percent	Valid Percent	Cumulative Percent
Apartment	41	49.4	52.6	52.6
Detached House	26	31.3	33.3	85.9
Dormitory / Student House	8	9.6	10.3	96.2
Other	3	3.6	3.8	100.0
Total	78	94.0	100.0	
Missing	System	5	6.0	

### 3.2. Interest in Retro Materials

#### 3.2.1. Interest Score by Occupation

Interest in retro materials shows significant differences across occupational groups (ANOVA,  $p < 0.05$ ). The highest interest comes from the self-employed group (mean=2.92), while students show the lowest interest (mean=1.00).

**Table 3.2.1.** Relationship Between Interest in Retro Materials and Occupation  
Descriptive Statistics

Occupation	N	Mean	Std. Deviation	Std. Error	95% CI Lower	95% CI Upper	Min	Max
Student	6	1.00	0.000	0.000	1.00	1.00	1.00	1.00
Employee (white-collar)	14	1.346	0.247	0.066	1.204	1.489	1.00	1.62
Employee (blue-collar)	17	2.041	0.073	0.018	2.003	2.078	1.85	2.08
Retired	6	2.192	0.064	0.026	2.125	2.260	2.08	2.23
Self-employed	24	2.920	0.352	0.072	2.771	3.069	2.23	3.54
Total	67	2.131	0.730	0.089	1.953	2.309	1.00	3.54

#### ANOVA Results:

Significant differences exist among groups,  $F=129.677$ ,  $p < 0.001$ . Post hoc tests show the self-employed group significantly differs from other occupational groups in terms of retro interest.

#### 3.2.2. Correlation Between Age and Retro Interest

There is a positive and significant correlation between age and interest in retro materials ( $r=0.877$ ,  $p < 0.01$ ). This indicates that older individuals show higher interest in retro designs.

**Table 3.2.2.** Correlation Between Age and Retro Interest

	Age	Retro Interest
Age	1	0.877**
Retro Interest	0.877**	1
Sig. (2-tailed)		0.000
N	78	67

**Note:** Correlation is significant at the 0.01 level (2-tailed).



### 3.3. Evaluation of Ergonomic Designs

42.3% of participants rated ergonomic designs as “very important.” Analysis by occupation and living area revealed that self-employed individuals and apartment dwellers considered ergonomic designs as higher priority.

**Table 3.3.** Distribution of Ergonomic Values by Gender (Frequencies)

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Female	40	48.2	51.3	51.3
Male	38	45.8	48.7	100.0
Total	78	94.0	100.0	
Missing	System	5	6.0	

### 3.4. Psychological Effects and Nostalgic Value

#### 3.4.1. Findings on Psychological Effects

Data related to psychological effects measured participants’ emotional responses to nostalgic and ergonomic designs. Retro designs showed higher nostalgic effects among male participants, whereas female participants displayed more positive attitudes toward ergonomic designs.

**Table 3.4.1.** Correlations on Psychological Effects

	Psikoloji15	Psikoloji16	Psikoloji18	Nostalgic Value Score
Psikoloji15	1	0.901**	0.941**	0.967**
Psikoloji16	0.901**	1	0.886**	0.946**
Psikoloji18	0.941**	0.886**	1	0.957**
Nostalgic Value	0.967**	0.946**	0.957**	1

**Note:** Correlation is significant at the 0.01 level.

#### 3.4.2. Distribution of Nostalgic Value by Gender

Significant differences were found between female and male participants regarding evaluations of nostalgia-focused designs (t-test,  $p < 0.05$ ).

Gender	N	Mean	Std. Deviation	Std. Error Mean
Female	40	1.483	0.413	0.065
Male	36	2.875	0.654	0.109

### 3.5. Productivity in Workspaces

#### 3.5.1. Effect of Ergonomic Designs on Workspaces

Ergonomic designs in workspaces play a critical role in enhancing productivity. Correlation and Chi-square tests showed significant differences between occupational groups regarding ergonomic designs and perceived productivity ( $p < 0.01$ ). Young adults (26-35) reported the highest benefit, with an average productivity score of 3.65. Older groups showed lower interest in ergonomic designs. Self-employed and white-collar employees benefited the most, while blue-collar employees showed less effect. Women reported higher benefits from ergonomic designs compared to men.

Chi-Square tests across Age, Gender, Occupation, and Living Area indicate significant associations ( $p < 0.001$ ).

#### 3.5.2. Evaluation by Living Areas

Apartment dwellers value ergonomic designs more, while detached house residents are more neutral. Ergonomic designs were observed to have significant impacts on workspace organization and work performance. Younger and active occupational groups evaluated ergonomic designs more positively, whereas older or less physically active groups reported lower effects. Productivity scores support that ergonomic arrangements enhance comfort and performance.

## 4. Conclusion and Recommendations

### 4.1. Conclusion

The findings of this study reveal the effects of retro and ergonomic designs on different demographic groups. Ergonomic designs were effective in improving quality of life and productivity in workspaces. Retro designs stood out for their aesthetic and nostalgic values, especially among specific age and occupational groups. Women showed higher interest in ergonomic designs and considered them more effective at work. Apartment dwellers prioritized ergonomic designs more than detached house residents. Retro designs triggered nostalgic feelings, particularly among individuals over 35, highlighting age as an influential factor.

### 4.2. Recommendations

**Design Customization:** Ergonomic and retro designs should be tailored to target demographics. For instance, modern ergonomic designs with technology integration can be developed for young adults.

**Education and Awareness:** Users should be informed about the benefits of ergonomic designs. Raising awareness in workplaces can enhance employee productivity.

**Psychological Impact of Retro Designs:** Retro designs should be crafted to maximize psychological benefits, especially for older age groups. Elements like color, texture, and shape can enhance nostalgic experiences.

**Sustainability:** Sustainable materials should be promoted in both ergonomic and retro designs to reduce environmental impact.

**Solutions for Small Spaces:** Ergonomic designs for limited spaces like apartments should be developed to maximize functionality in smaller areas.

#### 4.2.1. Retro and Ergonomic Design Integration for Nazende Café

**Interior Layout & Furniture:** Wooden tables and chairs with retro details (rounded edges, brass accessories) can be ergonomically redesigned.



Figure 1. Existing Nazende Café Area.



**Figure 2.** Existing Nazende Café Area.

**Accessories:** Nostalgic elements such as an old radio, record player, or classic telephone can be used.

**Decoration:** Panels adorned with historical photos of Afyon and traditional motifs can be hung on the walls.

**Outdoor Area Layout:**

**Seating Areas:** Ergonomic benches and seating groups shaded with umbrellas, combined with natural stone materials.

**Lighting:** Retro-style outdoor lamps can create a warm atmosphere.

**Example Areas for the Café:**

**Nostalgia Corner:** A reading corner equipped with old books and magazines, complemented by ergonomic chairs and seating areas with pastel-colored cushions.

**Social Interaction Area:** Ergonomic seating groups supported by round tables, with chair arrangements combining wood and metal.





**Figure 3.** Nazende Café Concept Designed by Artificial Intelligence.

This visual prepared for Nazende Café draws attention with its elegant ambiance and unique design approach. The aesthetic arrangement of the space combines both modern and rustic elements, creating a warm and inviting atmosphere. Natural textures created by wooden ceiling details and stone walls contribute to a tranquil and serene environment. The use of mirrors adds depth, enhancing the café's spacious appearance.

Chairs in shades of blue provide both an energetic and elegant touch, adding contrast and vibrancy to the overall design. Their ergonomic structure offers comfort to visitors, while the round wooden tables reinforce a warm and welcoming setting. Decorative elements such as bicycles on the walls and strategically placed plants emphasize the space's uniqueness, creating a visual delight for customers.

This design approach for Nazende Café seems aimed at creating a space where customers can enjoy long hours comfortably while also being ideal for photography and social media sharing. The harmonious use of gentle lighting and natural materials ensures a romantic yet cozy atmosphere. As reflected in this visual, it is recommended that Nazende Café offers a hospitable and aesthetically pleasing experience for its guests.

## 5. References

- Aksoy, A., & Hidayetoğlu, M. L. (2019). Color Perception in Interior Spaces: Research Methods and Results. *Journal of Space and Color Psychology*, 6(2), pp. 45-60.
- Brown, S. K. (1999). Assessment of Pollutant Emissions from Dry Process Photocopiers. *Indoor Air*, 9, pp. 259-267.
- Çetin, M. (2020). The Effect of Nostalgic Design Elements on Elderly Individuals. *Journal of Interior Design*, 12(1), pp. 14-28.
- Demir, E. (2021). Design and Self-Expression: The Psychological Effects of Retro Style. *Journal of Design Research*, 18(3), pp. 45-60.
- Demir, R. (2019). Visual Aesthetics and Peace in Interior Design. *Journal Park*, 20(2), pp. 78-91.
- Ertem, B. (2021). The Effects of Colors on Brain Chemistry. *Journal of Psychological Research*, 12(4), pp. 89-95.

- Kaya, D. (2021). The Impact of Flexible Workspaces on Employee Satisfaction. *Ergonomics and Workspaces*, 17(4), pp. 201-210.
- Kiran, M. (1986). Physiological and Psychological Effects of Colors on Humans. *Human Behavior and Space Design*, 9(1), pp. 69.
- Manav, M., & Küçükdoğu, A. (2006). *Psychological and Physical Effects of Ergonomic Design*. Istanbul: Architecture Publications.
- Özgüven, M. (2017). Nostalgia and Design: A Link Between Past and Future. *Journal of Design Research*, 5(2), pp. 50-62.
- Turan, S. (2016). The Effects of Ergonomic Conditions in Office Design on Employees. *Journal of Interior Design*, 23(2), pp. 105-116.
- Üçüncü, A., & Acar, H. (2020). *Research on Ergonomics and Employee Psychology in Interior Design*. Istanbul: Academic Book Publications.
- Porter, M., & Mikielidis, A. (1976). Interactions Between Color and Sound Perception. *Journal of Experimental Psychology and Design*, 3(2), pp. 13-15.
- Yararel, A., & Arslan, S. (2022). An Intergenerational Analysis of Individuals' Preferences for Retro Furniture. *JournalPark*, 5(3), pp. 45-58.