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EVALUATION OF TRANSITIONAL SPACE DESIGNS IN TERMS OF VISUAL PERCEPTION PARAMETERS

ARA MEKAN TASARIMLARININ GÖRSEL ALGI PARAMETRELERİ AÇISINDAN DEĞERLENDİRİLMESİ

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Abstract
The concept of adaptive reuse is primarily applied to historical buildings and industrial heritage structures, but it can also be utilized for various undefined building types. This study examines the criteria followed in the transformation of warehouse-type spaces during the expansion and transformation of urban university campuses. It explores how these approaches contribute to the creation of spatial identity and the perceptual parameters that influence interior design. This study, conducted in accordance with the conceptual framework, is analyzed through a specific example. In this context, the entrance and foyer areas of an inner-city university building are examined, highlighting the functional transition from the old to the new and analyzing the interior arrangement. The evaluation of how spaces that serve as transitional areas in architectural design can be effectively utilized in university buildings is illustrated through this example. The identified visual perception parameters are categorized into three main groups: the first group includes hierarchy, dominance, and orientation; the second group encompasses asymmetrical balance; and the third group focuses on light and color. The findings derived from the design analysis are discussed, and their relationships with the evaluation criteria are elucidated. In conclusion, the results of the adaptive reuse of undefined warehouse-type spaces and their transformation into transitional areas are assessed.

Keywords: Transitional Space, Visual Perception Parameters, Interior Design, Architectural Identity, Adaptive Reuse

Öz
Uyarlanabilir yeniden kullanım kavramı öncelikle tarihi binalar ve endüstri mirası yapılar için kullanılmakla birlikte, tanımlanmamış çeşitli bina türleri için de kullanılabilmektedir. Bu çalışma, kent içi üniversite kampüslerinin genişlemesi ve dönüşümü sırasında depo tipi mekânların dönüşümünde izlenen kriterleri incelemektedir. Bu yaklaşımların mekânsal kimliğin oluşturulmasına nasıl katkıda bulunduğunu ve iç mekân tasarımını etkileyen algısal parametreleri araştırmaktadır. Kavramsal çerçeveye uygun olarak yürütülen bu çalışma, spesifik bir örnek üzerinden analiz edilmektedir. Bu bağlamda, bir şehir içi üniversite binasının giriş ve fuaye alanları incelenerek, eskiden yeniye işlevsel geçişi vurgulanmakta ve iç mekan düzenlemesi analiz edilmektedir. Mimari tasarımda ara mekanlar olarak işlev gören mekânların üniversite binalarında nasıl etkin bir şekilde kullanılabileceğinin değerlendirilmesi bu örnek üzerinden gösterilmektedir. Belirlenen görsel algı parametreleri üç ana grupta toplanmakta, birincisini hiyerarşi, baskınlık ve yönlendirme oluşturmakta, ikincisini asimetrik denge ve üçüncüsünü de ışık ve renk oluşturmaktadır. Tasarım analizinden elde edilen bulgular tartışılmakta ve değerlendirme kriterleri ile ilişkileri açıklanmaktadır. Sonuç olarak, tanımsız depo tipi mekânların uyarlanarak yeniden kullanımı ve geçiş alanlarına dönüştürülmesinin sonuçları değerlendirilmiştir.

Anahtar Kelimeler: Ara Mekan, Görsel Algı Parametreleri, İç Mekan Tasarımı, Mimari Kimlik, Uyarlanabilir Yeniden Kullanım

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INTRODUCTION

The concept of adaptive reuse is frequently encountered in sustainable urban development today. Various applications can be observes ranging from urban scale to building scale, both globally and within our country. This concept is primarily associated with historical buildings and focuses on their reuse and preservation through the implementation of new building programs. It is an accepted method for revitalizing these structures by assigning them new functions, ensuring that buildings in need of preservation can be passed on to future generations. In addition, it is recognized as part of the industrial heritage, and it is evident that the building programs of industrial facilities from specific periods have evolved alongside historical buildings that possess distinct architectural identities. These neglected inner-city areas are referred to as urban brownfields, which pose social and security challenges. From this perspective, re-functionalizing these areas to reintegrate them into urban life and preserve industrial heritage promotes sustainable land use.

Urban university campuses have consistently expanded since their inception. They primarily achieve this growth within the regions where they are situated, often transforming the surrounding areas. Universities with the capacity for development in the built environment frequently adapt existing structures and repurpose them. This can involve the renovation of historical buildings, the conversion of industrial heritage sites, or the modification of structures lacking architectural significance or historical context. Here, the focus is on the last of the three different reuse features mentioned, specifically how warehouse-type buildings lacking a defined architectural identity and historical reference can be transformed into university buildings through adaptive reuse. Additionally, the criteria that should be followed during this transformation present a significant challenge.

The hypothesis of this study is that warehouse and workshop-type buildings can contribute to the transformation of urban university campuses through adaptive reuse. The aim of the study is to identify the criteria necessary for the transformation process and to demonstrate how to achieve architectural identity from an undefined space to a defined one. In this context, the focus is on the entrance and foyer areas of urban university buildings, along with the design parameters for these interior spaces. On the other hand, the factors influencing human perception within these environments are analyzed. Based on the parameters and criteria derived from the literature review, the design of the aforementioned areas is evaluated through sample analysis.

MATERIALS AND METHODS

Adaptive reuse, architectural identity, and perceptual parameters in interior design are key elements of this research, which encompasses multiple interconnected concepts. Firstly, the study explores the relationship between adaptive reuse and sustainability, industrial heritage buildings and warehouses and workshop types buildings. Following this, a literature review examines the transitional spaces at University buildings and connections between interior design and visual perception parameters. Throughout this process, the focus is on transitional spaces within university buildings and the perceptual parameters relevant to interior design.

Adaptive Reuse of Warehouse-Type Structures

Due to socio-cultural and economic changes, the adaptive reuse of buildings that have reached the end of their original purpose is considered an alternative approach to building production (Selçuk, 2006). It is generally defined as process by which structurally sound old buildings are adapted for economically viable new uses (Jashari, Prevulkaj, & Spahiu, 2017). Reuse breathes new life into existing structures rather than demolishing them (Erden, 2018; Uyumaz & Soyluk, 2023). New development is an inevitable aspect of a city's evolution. Cities are in a constant state of transformation (Kurnaz, 2024). It is noted that for many users, changing the function of disused buildings is often perceived as the most appropriate and cost-effective option (Nartkaya , 2016). The reasons necessitating a re-functioning process can be categorized as historical, cultural, economic, and environmental (Yenel, 2023). The concept of sustainability encompasses a wide range of issues, including economic, developmental, social, and environmental factors (Açıcı, 2020; Alagöz, 2017; Ertaş Beşir & Çelebi Karakök, 2023). Furthermore, sustainability fundamentally means ensuring continuity and establishing a framework that can be passed on to future generations (Şahin, 2024). The strategy of adaptive reuse is closely linked to

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sustainability (Kim, 2018; Uyumaz & Soyluk, 2023). In terms of energy efficiency, the energy consumed for constructing a new building is significantly higher than that required for the preservation and renovation of existing structures (Şahin, 2024). The longevity and efficiency of buildings are crucial for conserving resources as well (Açıcı, 2020). Adaptive reuse extends the lifespan of buildings, prevents demolition waste, encourages tangible energy reuse, and encompasses various aspects of sustainability, including economic, social, and environmental factors (Uyumaz & Soyluk, 2023). Economic sustainability is also crucial in the adaptive reuse of industrial heritage areas. Since there is less construction and reduced use of new materials during the reuse process, energy efficiency improves, and construction costs decrease (Ertaş Beşir & Çelebi Karakök, 2023; Kim, 2018).

In light of today's evolving socio-economic conditions, industrial buildings face numerous challenges, both due to the nature of the social structures surrounding them and the inadequacy of living spaces to adapt to contemporary demands. (Alagöz, 2017; Nartkaya , 2016; Selçuk, 2006). As these old industrial areas are refunctionalized, they also enhance the urban value of their respective regions (Alagöz, 2017; Ciritci & Shadnia, 2024). When examining buildings that are no longer serving their original functions and those that have undergone the reuse process, notable examples from around the world include gas stations, railway stations, power plants, shipyards, tobacco factories, textile factories, various manufacturing plants, prisons, bathhouses, and more (Açıcı, 2020; Alagöz, 2017; Erden, 2018; Güneş & Kayhan Tunalı, 2021; Jashari, Prevulkaj, & Spahiu, 2017; Nartkaya , 2016; Kim, 2018; Ural & Sarıman Özen, 2022; Selçuk, 2006). In the process of being repurposed, the following building programs are frequently encountered: museums, exhibition spaces, art workshops, offices, residential units, and schools (Ciritci & Shadnia, 2024; Jashari, Prevulkaj, & Spahiu, 2017; Kurnaz, 2024). Additionally, there are instances where these structures have been transformed into university facilities (Nartkaya , 2016; Selçuk, 2006). Industrial buildings are well-suited for adaptation due to their extensive openings and unique construction characteristics (Nartkaya , 2016). The predominance of large, single-space volumes in industrial buildings provides opportunities for multi-purpose use and highlights the building's capacity for transformation. These features are crucial for enabling the adaptive reuse of such structures (Özcan C. , 2024).

A comprehensive understanding of the existing building allows for various spatial interventions during the integration of the new function (Karapınar, 1997). The physical characteristics of the existing space will also influence the extent of the intervention. These interventions may be minor, depending on the current condition of the building, or they may involve significant changes, such as altering a large portion or the entirety of the interior space and completely renewing the structure (Apaydın, 2019). It is essential to analyze the strategies employed in this process, as they provide a methodological contribution to the evaluation phase of the forthcoming case study. When old industrial buildings are considered for reuse, various refunctioning approaches are employed (Amangeldikyzy, Amandykova, & Tokayuk, 2023; Güneş & Kayhan Tunalı, 2021; Kurnaz, 2024). Criteria such as convertibility, dismantability, expandability, and flexibility are integral to the refunctioning process (Nartkaya , 2016). When viewed through the lens of architectural transformation, adaptive reuse typologies can be categorized into insertions, parasites, wraps, juxtapositions, and weavings, based on the altered patterns (Kim, 2018; Özcan C. , 2024; Selçuk, 2006). It was also noted that this classification can be further divided into spatial, functional, operational, and structural aspects (Yenel, 2023). Furthermore, in cases where the façade of a building remains unchanged and is preserved, the issue of reuse is also considered at the scale of interior architecture and interior space (Pehlivan & İlhan, 2019). On the other hand, when focusing on interior design, eight strategic approaches developed at the scale of interior architecture and interior space include reprogramming, intervention, insertion, narrative, artifice, superuse, on-site/off-site, and installation (Özcan D. , 2022). Adaptive reuse is often linked to historical and industrial heritage buildings. To date, the analysis has predominantly concentrated on these categories. However, there is a lack of research in interior design that explores the adaptive reuse of undefined spaces, such as warehouses, to bestow upon them a distinctive architectural identity.

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Transitional Spaces in University Facilities

In buildings repurposed as universities, a key objective has been to examine and analyze spatial configurations and to develop designs that foster an educational environment for students (Alagöz, 2017; Tankut & Zengel, 2020). These spaces should be crafted not only as venues for learning but also as environments where students can cultivate their lives and engage in collaborative learning (Işıker & Bölük, 2016). Learning spaces ought to be viewed as not only tangible elements such as color, temperature, lighting, and spatial layout but also various abstract factors (Tankut & Zengel, 2020). Additionally, there are instances where the learning experience extends beyond traditional classrooms. Hertzberger emphasized the importance of threshold zones as spaces that connect classrooms and corridors (Al Şensoy, 2018). In this context, we encounter the concept of the transitional space, which serves as a threshold (Tankut & Zengel, 2020). This dynamic area is characterized by the expansion of defined spatial boundaries to meet specific needs, accommodating various forms of use and fostering new relationships (Yalgın, 2016). In Hertzberger's schools, the steps and alcoves in the corridor function as transitional spaces, facilitating different activities within the classrooms (Sanrı, 2015). According to Hertzberger, transitional spaces are created by the cavities formed in spatial design, which include dividing elements at varying heights, adjustments in floor levels, variations in ceiling height, and stairs designed to accommodate seating and activities. These different heights facilitate visual communication between floors (Hertzberger, 2008). In university educational buildings, entrances serve as significant transitional spaces, representing the initial area where students engage with the building. The entrances of university buildings are crucial for establishing a connection between the campus and the building (Tankut & Zengel, 2020).

Perceptual Parameters in Interior Design

Architectural space encompasses an area that addresses the physiological, psychological, and social needs of its users (Eryiğit & Anıktar, 2021; Tanrıverdi Kaya, Demir, & Ayengin, 2014; Yurttaş, 2019). To effectively meet these needs, it is essential to perceive the space as a cohesive whole, considering all its functional, physical, and emotional dimensions, as well as the various phenomena that may arise (Eryiğit & Anıktar, 2021). Initially, perception begins with a superficial two-dimensional understanding, which includes width and height. This two-dimensional perception is subsequently followed by a three-dimensional understanding that incorporates depth. At this stage, a more nuanced perception begins to develop. The individual assigns identity to the object or space in conjunction with their own self (Eryiğit & Anıktar, 2021). Space holds a pivotal role as it serves as the foundation for the formation of memory (Ayhan, 2021). During the user's visual perception of the space, numerous factors, including the components that constitute the space and its various elements, significantly influence the user's overall perception. The visual quality of the space to be designed is closely related to various design elements, including size and proportion, color, texture, form, light and shadow, and material (Eryiğit & Anıktar, 2021; Yurttaş, 2019). In other words, factors such as number, location, direction, orientation, form, size, distance, texture, density, color, light, and time are also recognized as variables that influence functional design elements (Üstündağ, 2019). While physical changes in spatial terms are often emphasized in concrete design, it is important to acknowledge that these physical changes can also evoke emotional responses in more abstract terms (Eryiğit & Anıktar, 2021). Additionally, the basic principles of visual perception—such as simplicity, similarity, proximity, closure, continuity, and symmetry—were defined by Gestalt and have been used for a long time (Malinauskas, 2018).

In selecting a function, several factors must be considered, including the building's location, the relationship between volume and space, and both aesthetic and physical uses. The dimensions of a space encompass perceptual, physical, conceptual, and emotional dimensions. The way individuals approach a space, the actions performed within it, and spatial parameters such as color, light, and texture, as well as temporal changes like moving away from the space, all contribute to the perceptual dimension of that space (Çetin & Küçükerbaş, 2022). Together, these elements form the core characteristics of identity in architecture (Brahman & Torabi, 2013). The role of color in a space should be assessed in relation to factors such as form, texture, size, and proximity. In interior spaces, color is directly influenced by light, and the forms created within the space offer distinct perceptual experiences through light and shadow (Altun & Zorlu, 2021; Çetin & Küçükerbaş, 2022). Generally, the three fundamental characteristics of color—hue, value, and saturation—are crucial for color perception (Hasgül, 2011). The fundamental

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element of geometric design is the point; from this point, one can create all three-dimensional elements. Consequently, the point, line, plane, and volume serve as the visual design elements that shape space (Üstündağ, 2019). New shapes are produced from basic geometric form relations (Türkmen, 2020). The objective of design is to create compositions that are harmonious with their environment while exhibiting diversity within unity. The organization of visual design elements can be categorized based on the design's purpose, structural components, and overall order. Formal design can be characterized by balance, tension, rhythm, scale, proportion, axis, symmetry, hierarchy, and transformation (Aydınlı, 1992; Bell, 1993).

CASE STUDY; IGU BLOCK J ENTRANCE AND FOYER AREAS

The study focuses on the transformation process occurring on university campuses by exploring the concept of adaptive reuse, specifically in relation to warehouse-type spaces. It examines how transitional spaces are utilized within university buildings, considering both spatial identity and interior design. The analysis of the entrance and foyer areas of an urban university building provides a concrete framework for this investigation. While adaptive reuse is typically viewed through the lens of sustainability and conservation, this study emphasizes the design of transitional spaces within this context. The relationship between these two concepts is highlighted. The methodology of the study is determined by clarifying the criteria followed, how these criteria are established, and their connection to the outcomes. Investigating how factors such as user experience, spatial flow, light, and materials contribute to the design of transitional spaces reveals the interior design dimension of the study. Initially, the original version of the transformed space is presented, followed by the design strategies implemented in the new version and an analysis of the perceptual parameters in interior design.

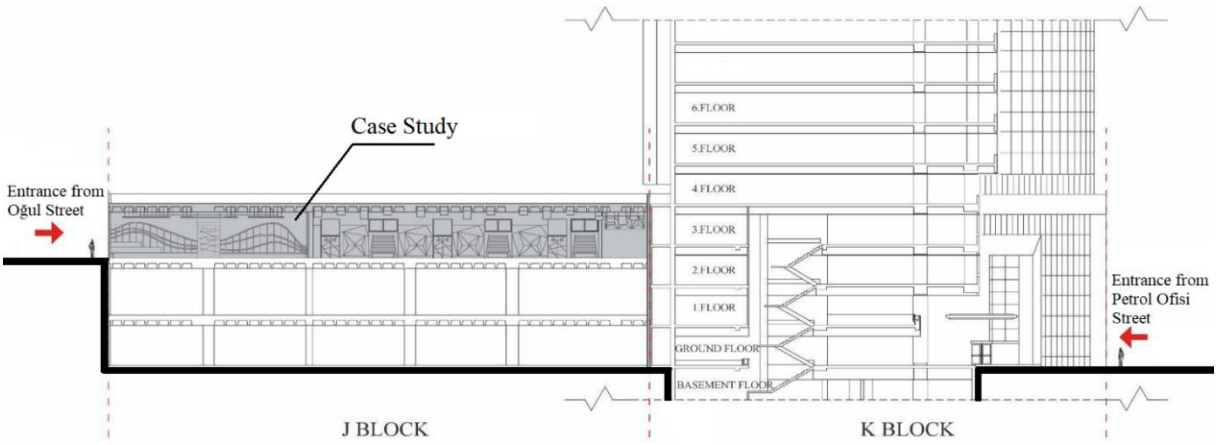

Figure 1. Sectional representation of the main entrance of the building from Oğul Street after renovation (The original drawing was obtained from University's Department of Construction Affairs and the partial section was adapted by the authors)

Istanbul Gelisim University is situated in the city and utilizes various buildings across different sites. The building analyzed in this study was previously owned by a private company before being incorporated into the university through a change of ownership. Located in the Avcılar district of Istanbul, the building complex comprises several blocks, the most notable of which is the K Block tower, a multi-storey building. Attached to it is the J Block, a single-storey structure with high ceilings. Although the original design featured a more defined entrance to the tower on Petrol Ofisi Street, located on the northwest side, the transformation into an educational building necessitated relocating the main entrance used by students to the secondary entrance on Oğul Street, situated on the southeast side. This change was made to accommodate both pedestrian and vehicle circulation. The main entrance for students provides direct access to Block J, which is also conveniently located near public transportation and the university's shuttle service (see Figure 1). Therefore, this location, where thousands of students enter and exit throughout the day, can be regarded as the area with the highest pedestrian traffic on the Gelisim University Campus. The K Block tower, accessible from the J Block, houses both the Faculty of Engineering and Architecture and the Faculty of Fine Arts. Block J, which is the focus of this article, was originally designed and utilized as a warehouse. Upon its integration into the university, several

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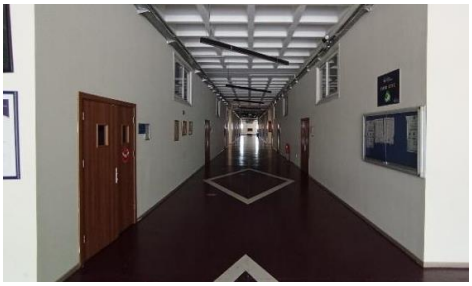
modifications were made to the storage areas during the initial phase. By leveraging the advantages of waffle slab, partition walls were constructed based on specific needs. While this approach addressed physical requirements, it did not foster a distinct spatial identity. In this context, to establish a spatial identity, the senior management of the University commissioned a design and implementation project for the renovation of the J Block entrance and foyer areas. This initiative was a collaborative effort between the Faculty of Engineering and Architecture, specifically the Department of Architecture, and the Faculty of Fine Arts, particularly the Department of Interior Architecture and Environmental Design. The design team, formed within the University, successfully executed the design and implementation process in 2024. Additionally, the team provided support to the University's Department of Construction Affairs during the implementation supervision phase. The interior design activities can be categorized into several elements, including flooring, wall coverings, seating arrangements, directional signage, ceiling lighting, and customized spaces (see Table 1). First and foremost, this project can be classified as adaptive reuse, as it involves the transformation of a warehouse building, which lacks historical significance, into an educational facility. Among the reuse strategies examined in the second section, it is also beneficial to define this approach as an insertion into the existing structure. Furthermore, it was observed that the definition of transitional spaces required in university buildings aligns well with this area. During the design process, discussions focused on how the entrance and foyer areas could be converted into transitional spaces. The goal is to incorporate elements that enhance education and facilitate the learning process. The welcoming spaces at the entrance of J Block create a lasting first impression of the University. It is envisioned that these areas will be designed and equipped to enhance the quality of the time students spend outside the classroom. Additionally, departments within the Faculty of Engineering and Architecture, as well as the Faculty of Fine Arts, which typically follow an applied curriculum, require exhibition space. These exhibitions, showcasing the work of students and faculty throughout the semester, are crucial for fostering interdisciplinary interaction and developing individual connections. Consequently, all of these physical requirements and perceptual factors have been key elements in shaping the design.

Table 1. Visuals of the J Block entrance and foyer areas, showcasing the interior design before and after the transformation (The photos were taken by the authors)

	J Block Entrance (S1)	**Foyer Areas (S2)**
Before		
After		

In this research, the visual parameters utilized in the design process to establish a targeted spatial identity for the presented project are discussed. In this context, several parameters outlined in the following section serve as the basis for evaluating design elements. The relationship between the variables influencing the design elements and the organization of visual design components is examined. The parameters considered in this design evaluation include hierarchy, dominance, orientation, time, rhythm, integrity, diversity, asymmetrical balance, light, and color.

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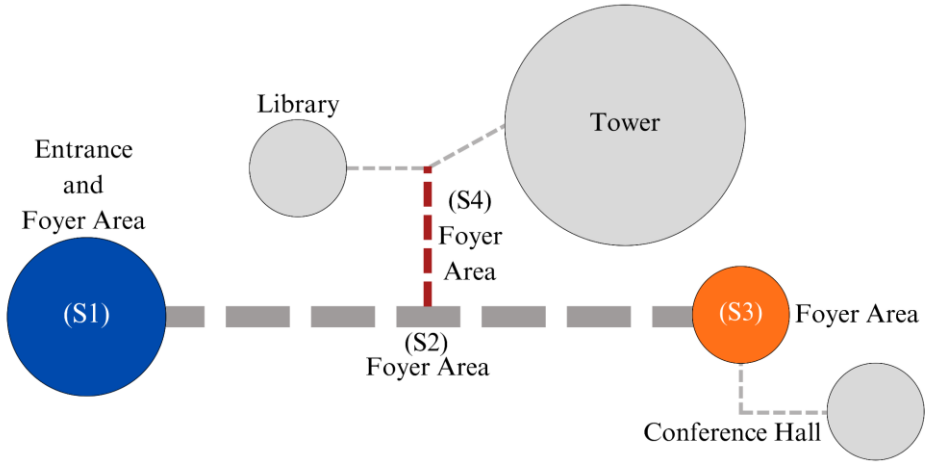
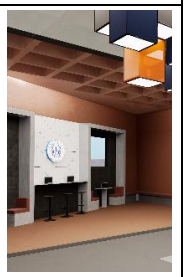
Hierarchy, Dominance, and Orientation

Hierarchy, which refers to the arrangement of architectural elements in a space according to their importance, guides users toward the focal points established by the designers while they navigate the environment, thereby enhancing the overall readability of the space. Large-scale design elements, vibrant colors, and varied textured materials are effective tools for establishing hierarchy. Additionally, functional priorities must be considered to effectively convey the hierarchy within the space. Dominance is an effective parameter for establishing focus and balance, allowing for the highlighting of specific spaces or design elements. By strategically positioning dominant design elements within a space, visual focal points can be created, thereby enhancing the user's understanding of the desired spatial identity. Orientation, a fundamental aspect of user adaptation to a space, plays a crucial role in functional accessibility. Rather than relying solely on written or visual signage, orientation can be achieved through the repetition of design elements featuring various color combinations and the arrangement of wall cladding elements in diverse forms within designated areas. Various interconnected focal points were created throughout the design, and this relationship is illustrated in Table 2.

Table 2. Hierarchy, dominance, and orientation-oriented visual design elements in relation to visual perception parameters (The table was prepared by the authors, and the illustrations were drawn by Melek Çelik)

Hierarchical order in the main entrance and foyers



Visual perception parameters	**Visual design elements**					
	-S1- Column	-S2- Floor	-S2- Lighting	-S1- Portal 1	-S3- Portal 2	-S2- Portal 3
						
Hierarchy	X		X		X	X
Dominance	X		X		X	X
Orientation	X	X	X	X	X	X

In this context, an effort was made to establish a hierarchy among the design elements and various spaces, particularly focusing on the main entrance, transition area, and foyer utilized by students in the project. Considering the functional priorities of the space, an emphasis was placed on creating dominance through various design elements and preferences. The main entrance, which can also serve

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as an exhibition area, along with the adjacent foyer spaces, has now been integrated into the educational process by defining them as transitional spaces. Additionally, an existing square column at the entrance of the building has been transformed into an iconic circular feature to provide the space with a distinct identity. This object, located at the center of the design in the entrance area (indicated by the blue color), has become the focal point of the space, providing the desired prominence in the entrance. A distinct emphasis (represented by the burgundy color) was intended for access to the K Block tower elevators and the central library, while another emphasis (shown in orange) was designated for access to the large conference hall on the same floor. In the bubble diagram presented in Table 2, the areas designated for interior design are labeled as S1, S2, S3, and S4. For instance, circular lines are employed in the main entrance, coded S1, while diagonal lines are utilized in the foyer areas, coded S2. Additionally, quadrilateral shapes are incorporated in the large conference hall, coded S3. Beyond the geometric variations on the two-dimensional plane, these distinctions are further accentuated through the use of different colors. This approach aims to create hierarchical differences, as well as dominant and recessive areas, within the overall design integrity, enhancing the perception of those utilizing the space. The orientation at the entrance of the building is structured according to a hierarchical order, and the pedestrian circulation within the interior space is guided by this axis system. By defining previously ambiguous areas that were difficult to locate, an effort was made to establish a distinct identity for these spaces. For orientation purposes, portal frames were designed to facilitate the transition from the main entrance to the foyer areas. Additionally, variations in the floor covering patterns and strategically placed lighting elements on the ceiling were employed to enhance navigation.

Time and Rhythm

Time and rhythm are crucial elements that enhance user-space interaction, contributing to the dynamic and sensory experience of the environment. The concept of time plays a significant role in improving user experience by considering the duration users spend in various areas of the building, along with tangible physical parameters. The rhythm established through repeated design elements, lighting, flooring, and geometric sequences within the space aids users in adapting to their surroundings and guides them according to functional priorities. In the previous state of the spaces under study, general user behavior resembled that of a transit area where individuals merely passed through. This was far from the intended transitional space within the university building. Consequently, it was determined that the design should encourage users to slow down their rapid passage and create an environment where students could comfortably spend time. In the spatial arrangement, certain areas are utilized more intensively while others are used less, depending on pedestrian movement patterns. These varying levels of usage, or rhythmic movements, inspired a geometric wave form. It was envisioned that the wave form on the wall plane at the main entrance, designated as S1, could enhance the duration of spatial use. In addition, the water element incorporated into the wall in the area designated as S1 enhances temporal interaction and contributes to a sense of rhythmic movement. This approach fosters a dynamic spatial perception rather than a static, stationary design model (see Figure 2). Following the implementation, it was noted that these spaces were utilized more frequently by students during breaks, transforming them into vibrant environments integral to the educational experience.

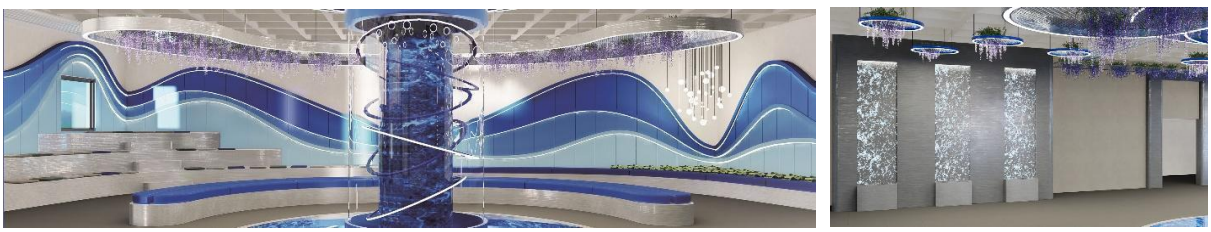

Figure 2. Temporal interactive rhythmic movements: waveform on the wall (left) and waterfall (right) applications in the space designated as S1 to enhance spatial experience (3D visuals were drawn by Melek Çelik)

Integrity and Diversity

Although the concepts of unity and diversity may appear to be oppositional, they are, in fact, interrelated and crucial for establishing a coherent language in spatial design. Both integrity and diversity play

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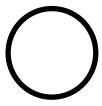
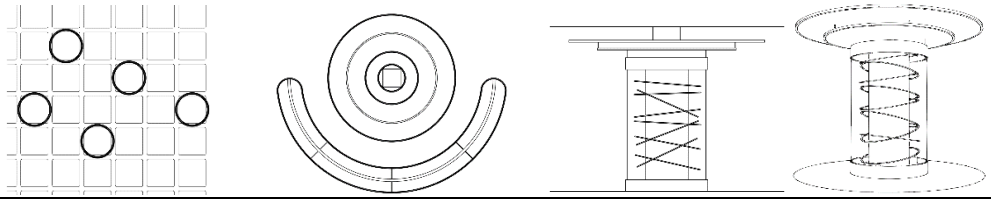
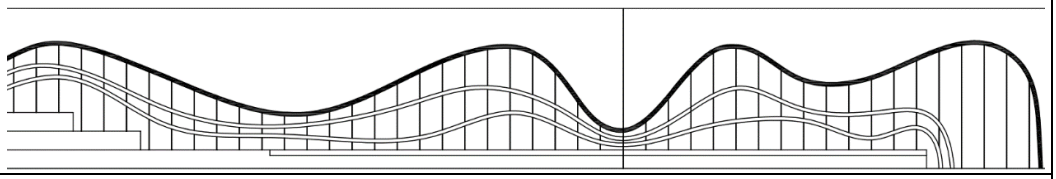
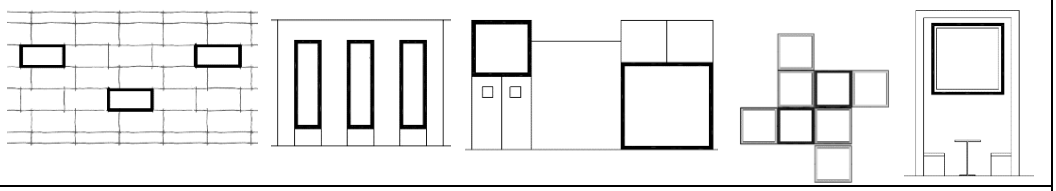
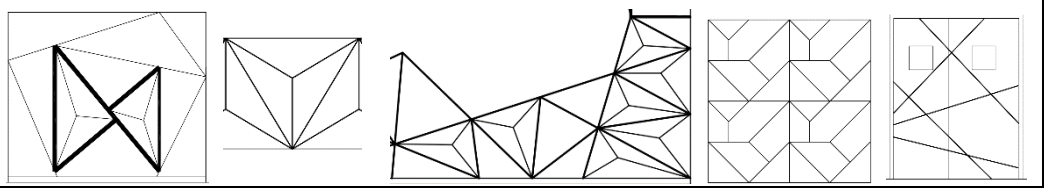
significant roles in optimizing user experience and achieving perceptual balance. The most effective method for creating unity within an interior space is to repeat various forms and strategically position them according to a specific design language. However, the diversity introduced through the use of different forms enables the development of a design language that maintains integrity while allowing emphasis on particular focal points. In this context, the goal is to create unity by combining various iterations of basic geometric shapes, such as circles, squares, and triangles. Variety is achieved by arranging elements of different sizes and patterns. These elements can be grouped together or spaced apart. Individual elements provide subtle references to their surroundings; however, as the number of elements increases and begins to repeat, visual relationships and interactions emerge among these repeated elements. The greater the quantity, the more intricate the texture or design becomes. Examples of forms created on walls, floors, and ceilings using basic geometric shapes are presented in Table 3. The circular form is utilized in design elements such as ceiling lighting, seating units, and column cladding in S1. Curves were employed in wall cladding in S1. Square and rectangular shapes were incorporated into the water element on the wall in S1, as well as in the floor covering, wall surfaces, and ceiling lighting elements in S2. In S3, these shapes were also present on the floor, walls, and ceiling. Triangles and diagonal lines are extensively used on the walls, particularly in S2, and they were also applied to the walls in S3.

Table 3. Basic geometric shapes and the processes for their creation that ensure integrity in design (The table was prepared by the authors, and the illustrations were drawn by Melek Çelik)

Shape Variable	**Various geometric shapes produced by using basic forms to create unity**
Circle 	S1 S1 S1 S1 
Curve 	S1 
Square/ Rectangle 	S2 S1 S2 S2, S3 S3 
Triangle / Diagonal 	S2, S3 S3 S4 S4 S2, S3 

Asymmetrical Balance

Asymmetrical balance involves harmonizing the visual weight of architectural elements that vary in size and characteristics, ensuring they are compatible with one another and with the overall composition. By relating elements within a space through proximity, similarity, or continuity, it is possible to create a

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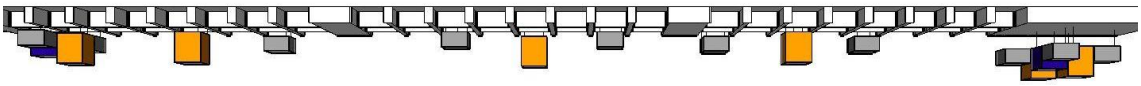
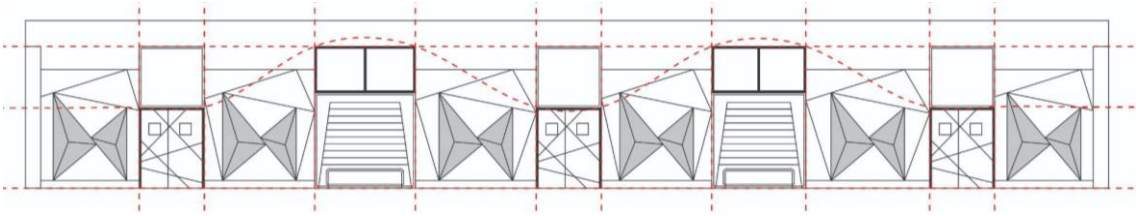
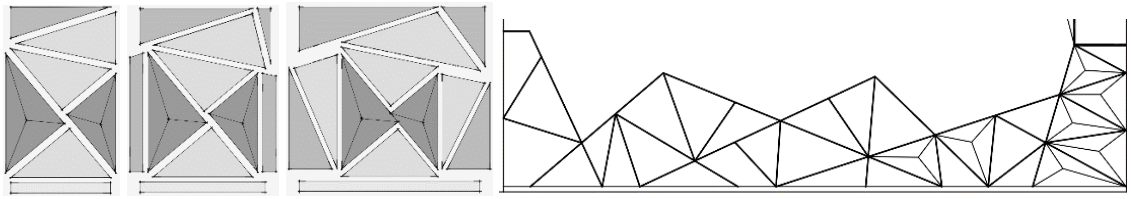
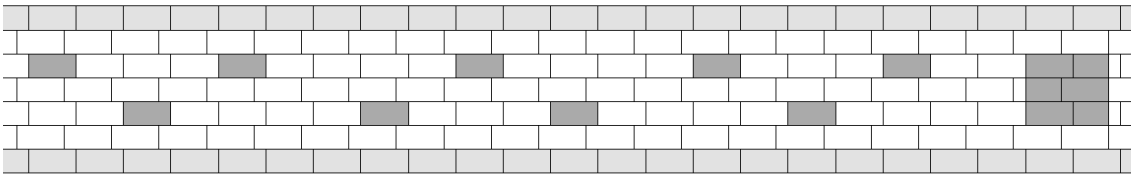
perceptual experience of wholeness for users. In this project, the intervention within the interior of an existing building aims to introduce a new design approach after thoroughly examining the existing geometric form of the space. The case study revealed that asymmetrical elements were distinctly observable in the floor plain as a result of the preliminary examination. For example, the door and window openings on the wall surfaces in S2 were arranged in a distinctly asymmetrical manner. Rather than aligning these two spaces in a more balanced configuration, the design emphasized their existing asymmetry. This decision became the foundation of the design, resulting in an asymmetrical arrangement of the wall coverings between the doors and windows. Similarly, an asymmetrical balance was sought in the floor covering and the arrangement of design elements on the ceiling (see Table 4). Additionally, the dimensional differences between the doors and windows in S2 led to the incorporation of four variants derived from basic forms in the new design. In the space designated S3, symmetrical elements were introduced as a continuation of the design established in S2.

Table 4. Creating asymmetrical balance using forms derived from various basic geometric shapes (The table was prepared by the authors, and the illustrations were drawn by Melek Çelik)

	Asymmetric design elements
Ceiling	
Wall	
	
Floor	

Light and Color

The types of lighting used in interior spaces are generally categorized into ambient, accent, and task lighting. Ambient light refers to the general illumination of a space, while task lighting provides additional brightness in areas that require a higher level of illumination than the ambient light. Accent lighting is employed in specific areas to create visual emphasis. In the case study, ceiling pendant lights serve as ambient lighting throughout all spaces where the interior design is implemented. In addition, visual emphasis was achieved in the area designated as S1 by utilizing LED lighting on both the column and wall cladding. Consequently, these lighting elements are classified as accent lights. While S1 and S3 benefit from direct access to natural light as side lighting, S2 has limited access, and S4 has no access to natural light. Therefore, it can be concluded that S2, which has restricted natural light, should be supplemented with additional artificial lighting. It is anticipated that the use of intense ceiling lighting in this space would be appropriate.

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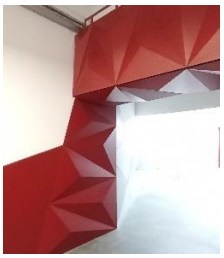
Table 5. Examples of cool and warm colors used in different focal points (The table was prepared by the authors, and the illustrations were drawn by Melek Çelik)

Color pattern				
S1 Cool	S2 Cool	S2, S3 Cool and warm	S3 Warm	S4 Cool
				

The blue and white colors in the university logo were deemed suitable for corporate identity, particularly in welcoming visitors at the main entrance. These colors, classified as cool tones, are also considered appropriate for areas with low natural lighting, as they evoke the hues of natural light and the sky. Furthermore, rather than a stark transition from blue to white, this shift has been softened by incorporating lighter shades of blue and gray tones as intermediate colors. Another factor influencing the design is the high glare produced by the southwest-facing windows in S3. Due to the low window-to-wall ratio on this wall, there was no need to modify the windows. Instead of eliminating the distracting glare, the wall was painted orange, a warm color, to create a visual focal point. The combination of blue, a cool color, and orange, a warm color, highlights the overall color scheme of the design. Based on these two parameters, blue, gray, and orange are used in the ceiling lighting between spaces S1 and S3, enhancing visual tracking and orientation. The colors in the bubble diagram presented in Table 5 are derived from these design principles, and the focal points are explained accordingly. In addition, to enhance orientation, a striking burgundy color was chosen for the S4 space, which provides access to the K Block tower. Prior to the revised design, it was challenging to establish direction within the building. Consequently, the use of distinct colors at focal points significantly improved orientation.

CONCLUSION

Urban universities undergo a process of expansion over time, often incorporating new buildings into their campuses. In this context, the adaptation and reuse of decommissioned buildings with historical significance, as well as those that fall under the category of industrial heritage, frequently come to the forefront. Additionally, it is observed that warehouse-type buildings lacking historical value are also repurposed within the university setting. This study examines the utilization of a warehouse building designated for such reuse as a university space. In the examined example, it was observed that the strategy of placement within the space was implemented without altering the facade or structure of the building, in terms of reuse. There are essentially two key considerations regarding the design of the areas undergoing renovation in interior design. The first can be summarized as the emphasis on institutional identity and spatial identity, particularly due to the entrance of one of the main buildings on the campus. The second consideration is the desire to create transitional spaces that facilitate education within university buildings. In this context, the entrance and foyer areas in the sample analysis were regarded as transitional spaces, with the primary objective of the design being to establish a distinct spatial identity. The evaluation of the interior design revealed various perceptual parameters related to visual elements that can be utilized. Accordingly, the parameters of hierarchy, dominance, orientation, time, rhythm, integrity, variety, asymmetrical balance, color, and light were employed in the assessment of the case study.

Hierarchy, dominance, and orientation have been identified as focal points. Within the parameters of time and rhythm, it has been demonstrated that the design is intended to create a space that can be lived in and experienced, transforming the previous state of the area into a transitional space. Regarding integrity and diversity, the production of basic geometric forms on the walls, floors, and ceilings is

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illustrated with examples. In terms of asymmetrical balance, rather than seeking or creating symmetry in dimensionally incompatible spaces, methods are proposed for achieving asymmetrical balance by leveraging this incompatibility. In the parameters of color and light, details regarding lighting design and color preferences are included based on assessments of natural and artificial lighting. Consequently, a warehouse-type building has undergone a functional transformation and is now utilized as an educational facility. With the addition of a main entrance, the building has become a space frequented by thousands of students. Alongside this transformation, the significance of spatial identity has emerged, necessitating a new definition both physically and institutionally. In order to address this need, the interiors to be designed are regarded as transitional spaces, and visual design preferences are proposed accordingly. The case study demonstrates that it is possible to adapt and reuse designs for transitional spaces by evaluating them based on visual perception parameters.

It is important to emphasize that the quality of the interstitial space requires further examination and should be considered beyond the scope of this study. Gathering feedback from users after the renovation will facilitate a comparison between the intended design presented here and the actual outcome. In the continuation of this study, it would be beneficial to conduct measurements on users through a questionnaire. In such a survey, the types of questions can be categorized into two groups. The first study could focus on users' perceptions of the visual design elements analyzed in this research, utilizing questions based on the visual perception parameters evaluated in the third section. The second study could examine how these elements contribute to education and learning when assessed as a transitional space. By employing this type of measurement, more concrete information about the design of interstitial spaces in university buildings can be gathered. This data will be beneficial for designers and researchers in the field of education.

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