

Research Article

Reading the Facade as an Urban Interface through Basic Design Principles: Trabzon Historical Kunduracılar Street

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Abstract Throughout history, cities have served as common living spaces, shaped by cultural and social structures. Technological advancements and changes in human behaviour have influenced urban dynamics, accelerating transformation processes. Today, increasing population, migration, and construction activities drive rapid urban change, significantly impacting building density and height.

Building facades, beyond their architectural role, are key elements in shaping a city's identity, reflecting cultural and environmental identity. Facades are not only an aesthetic element; they are also a surface that reflects the culture and identity of a building's surroundings. It plays a critical role on users with its repetitive, harmonious or contrasting effects.

This study examines the facades on Kunduracılar Street, the centre of Trabzon, through Basic Design Principles such as repetition, harmony, contrast, hierarchy, dominance, balance, and unity. By analysing both historical and modern structures, it highlights the aesthetic dimension of facades. The study aims to provide architects with concrete insights on integrating these principles into early design stages, ensuring harmony with the historic fabric. The study generates an idea for urban designs.

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1. Introduction

Cities have been the common living spaces of people by harbouring different textures from past to present. Technology and habits change over time; human beings keep pace with this situation and cities are also affected by its results. Today, with the increasing population, migration to cities and increasing construction activities, urban and building transformations have been realized rapidly. This process of rapid change in cities and buildings manifests itself physically with the increase in building texture horizontally and building heights vertically within cities. In this context, facades, as the face of the buildings, are one of the main elements that affect the environment in which they are located. Facades, as well as being an important element of buildings, create an impression about the environment and the city, ensure that they take place in the memory of the user and reflect the culture of the environment. At the same time, they have an impact on citizens with features such as repetition, harmony, and contrast. In this context, the features of the principles that form the basis of the design on the facades that affect the user perception and psychology are also important.

The aim of the study is to evaluate the building facades on Kunduracılar Street, which forms the main spine of Trabzon and is intensively used, through the Basic Design principles (repetition, harmony, contrast, hierarchy, dominance, balance, and unity). This study differs from other studies in that it analyses all the basic design principles through historical and new architectural structures in the same texture, and that it performs this analysis with the aesthetic concern of the facades that form the urban interface. Thus, with the data revealed by the study, architects who will design new buildings in the historical texture will be able to obtain concrete information on how they can include basic design principles in the preliminary stage of the design. It is thought that the study will be a guiding example in this respect.

The architectural facade, as both a design element and an urban interface, has been the subject of various studies that explore its visual, spatial, and socio-cultural significance. Numerous researchers have investigated the role of facades in reflecting urban identity, user perception, and aesthetic continuity within changing urban contexts. A chronological review of relevant literature is presented to contextualize the theoretical and methodological framework of this study. Şenyiğit and Altan (2011) emphasized the importance of establishing formal and semantic (subject-object) coherence in order to ensure the continuity of urban identity. Their study proposed that identifying guiding principles capable of integrating traditional and contemporary facade expressions can prevent users' alienation from their environment and support meaningful dialogue between past and present architectural languages. Hossein Askari, Dola, and Soltani (2014) examined the visual elements of historical facades -such as form, architectural style, colour, and decoration- that contribute to strengthening the historical image of a region. Their findings highlight the facade as a critical component in shaping the visual memory of urban environments. Alishah et al. (2016) approached facade design from a user-oriented perspective by analysing how urban facades are perceived within the cityscape of Sari, Iran. The study explored the way users interpret architectural forms and how facades contribute to the collective urban experience. Gök (2019) focused on the visual components of facade design -specifically colour, texture, and form- by analysing three renovated multi-story residential buildings on the

same street in Fenerbahçe district of Istanbul. The study provided a comparative visual evaluation of how facade aesthetics affect urban character. Sadeghifar et al. (2019) investigated the relationship between facade design and user preferences through visual surveys conducted with 124 university students from three departments at Golestan University. The findings demonstrated how different facade configurations influence aesthetic perception and spatial preference. Akkurt and Aykal (2021) addressed the perceptual impact of facades on users by questioning how this architectural element, as a major visual component of buildings, shapes user experience within the urban context. Their study underscored the role of facade in visual communication and spatial legibility. Topatan Orhan (2021) evaluated the facade design characteristics of selected buildings along Şefik Can Street in Konya, a region contributing to the city's urban development. The study assessed the effects of urban transformation and modern architectural tendencies using both subjective (user perception) and objective (formal features) data within the framework of design principles. Özel and Sağsöz (2021) conducted a study with a similar focus on Şefik Can Street, analysing how facades shaped by modern architecture and urban renewal processes reflect different design strategies. Their work explored the degree of aesthetic coherence achieved through the application of fundamental design principles.

This study makes several original contributions to the existing literature on facade analysis, particularly in the context of historical urban environments and architectural design principles. Firstly, unlike many previous studies that focus on limited visual attributes such as colour, material, or scale, this research adopts a comprehensive approach by systematically analysing all fundamental design principles -repetition, harmony, contrast, hierarchy, dominance, balance, and unity- derived from Bauhaus-based design pedagogy. This holistic analytical framework allows for a richer interpretation of facades as complex architectural compositions, rather than isolated visual elements.

Secondly, the study advances the discourse on the facade as an urban interface, shifting the analytical lens from the scale of the individual building to the broader urban context. By interpreting facades not only as architectural skins but also as communicative surfaces between the built environment and its users, the study contributes a socio-spatial perspective that has been underrepresented in facade literature.

Thirdly, the research stands out in its comparative evaluation of both historical and contemporary facades within the same urban fabric: Kunduracılar Street in Trabzon. While most existing studies address either heritage architecture or modern interventions in isolation, this study analyses their coexistence and visual dialogue through the lens of design principles. This comparative approach helps identify continuity and discontinuity in urban aesthetics and offers insights into design compatibility in historical contexts.

Fourthly, the study synthesizes the individual facade readings into a collective urban silhouette analysis, highlighting the role of facade composition in shaping street identity and visual unity. By focusing on the spatial relationships and rhythm between adjacent facades, it introduces the concept of facade as a compositional contributor to urban legibility and collective memory.

Lastly, the study offers practical design guidance for architects working in heritage settings by demonstrating how basic design principles can be meaningfully integrated into early design

decisions. From this aspect, the study can be regarded not only as a theoretical contribution but also as a valuable reference for practice-oriented discourse in architectural and urban design. In summary, this research bridges a gap in the literature by combining formal design theory with urban contextual analysis, and by positioning the architectural facade as a critical component of both building-level articulation and urban identity construction.

1.1. The Architectural Facade as a Building Element

The concept of facade is defined in the dictionary of the Turkish Language Association as “the part of a thing or structure located on the front side; alnaç” (Turkish Language Association, 2023). Hasol defines facade in two ways: “Each of the faces of a building, especially the front face” and “the view from infinity perpendicular to the building face” (Hasol, 2022). Özer, on the other hand, explains this situation as follows: “With today's understanding, the 360-degree view of the exterior of a building, according to those who walk around it, constitutes the complex of facades of that building; it determines the phenomenon of the holistic facade” (Özer, 2000). According to records, the concept of facade was first used in 1656. It describes the external appearance of a house. However, after its first use, the facade was not used as an architectural concept until the 18th and 19th centuries (Tezer, 2017). Since the Renaissance Period in Europe, the facade has started to gain an individual value as an element, a concept.

Functionally, the facade is described as “an area where basic problems such as the interconnection of interior and exterior spaces, the view from fixed and variable angles, the relationship between form and function are concentrated” (Sacripanti, 1983). The facade basically affects two spaces and the user in both spaces. Facades, functioning as an envelope between interior and exterior spaces, protect interior users from climatic and other adverse external conditions. On the other hand, the facade is an interface, a social tool that informs the outdoor user about the identity of the building and enables the building to participate in the city. While the facade creates a boundary by separating the interior space from the exterior space, it also proves the existence of a space in the built environment in the urban area. In this context, it has meaning beyond being a separator and a boundary. In addition to creating the image of space at first glance by surrounding the building, it also represents its hidden meanings while protecting its internal organization. In this way, it becomes a means of social communication by acting on a social level (Vandevivere, 1983). Today, architectural facades fulfil technical requirements while providing comfortable living environments for both interior and exterior spaces, and at the same time, enable diverse design possibilities through a wide range of materials and systems. With its social aspect, it stands out as a communicative tool that adds value to the city identity. Facades are both a physical and a communicative element on the scale of the building and the city by hosting different functions together.

1.2. Facade as Urban Interface

Facades, in addition to being defined as elements of a building, are also among the primary components of urban space. As an element within the urban environment, a facade possesses not only physical presence and functional roles but also visual and operational qualities that

impact the city and its surroundings on perceptual and communicative levels. With the increasing emphasis on urban identity and the growing value of urban planning studies, facades have acquired a new dimension. They form the edges of urban space and, in this context, serve as elements that delineate urban areas. Therefore, a facade should not be considered solely as part of a building, but also as a constituent of the city itself. Consequently, the components of the facade -design elements and detail components- should be regarded as urban elements as well (Şenyiğit, 2010). While facades define the boundaries of buildings, when integrated into the urban fabric, they become elements that frame urban spaces, acting as an “interface” within the city. As such, they influence both the city and its environment, as well as the people living within that environment. In this context, the facade as an interface is not only a physical but also a socio-cultural phenomenon. As a vertical component of the urban interface, facades are one of the most important elements affecting the urban and environmental character. Within the urban and environmental character, facades define positive and negative spaces in the city; in other words, they affect the formation of solids and voids in the city (Konuk, 1989). As an urban interface, facades acquire unique identities in line with the use of construction techniques, materials, and design elements such as form, proportion, size, colour, and texture. As the facade articulates the identity of a building, it simultaneously embodies and reflects the characteristics of its surrounding environment and the socio-cultural structure of the society. In this context, facades contribute to the construction of urban identity by establishing a visual and symbolic dialogue between the individual and the city through the layers of meaning they convey. Historically, diverse environments, cities, and societies have, whether deliberately or inadvertently, expressed their unique materials, colours, patterns, textures, symbols, and iconography through facades. In doing so, facades have served as mediums through which distinctive architectural character and socio-cultural attributes are transmitted to the urban fabric and the broader built environment.

As Konuk states; “Facades are a sign of a society's personality, social differences are reflected in the city through facades”. In addition, facades are the most important elements that reflect urban changes with factors such as new uses, legal sanctions, and deterioration of building proportions, as well as construction techniques, technology, materials, and colour diversity (Konuk, 1989). As an urban interface, the facade is a tool that supports the active participation of the user in the city and the interaction of the user with the city while providing the communication of the building with the city with its elements and design features. In this context, the facade composition within the urban layout can be supportive in the formation of urban spaces favourable for users.

1.3. Basic Design Principles

At both the building and urban scales, the facade functions as a significant architectural element. In this context, the factors that define the character of a facade can be categorized into two groups: volumetric factors and surface-related factors. Volumetric factors are the external form, namely, the perceived appearance of the building in urban space (Özer, 2000). Surface-related factors are the factors that provide the visual relationship with the building and the facade (Avşar, 1998). The perception of the facade in a building is based on the perception

of volumetric factors and surface-related factors. Basic design principles should be applied in determining these factors. Basic design elements are accepted as line, form, space, colour, texture, and pattern. The basic design principles of the Bauhaus school are balance, hierarchy, repetition and rhythm, ratio-proportion, emphasis, movement, harmony, contrast, integrity, and diversity (Erim, 2011). The basis of design is the presentation of design principles in visual integrity, balance, and symmetry.

Basic design principles are the fundamental concepts that guide us to create effective and aesthetically pleasing designs. These principles are used to ensure that a design is both functionally and visually successful (Civcir, 2015). Design principles are listed as repetition, harmony, contrast, hierarchy, dominance, balance, and unity (Anderson, 2011).

- **Repetition:** Repetition is the fluidity consisting of the rhythm of similar and equal parts. It is the changing harmonious continuity of visual elements. Repetition brings warmth and mobility instead of coldness and dullness. Visual rhythm can be random, regular, sequential, fluid, and progressive. The principle of repetition is divided into three as complete repetition, repetition, and intermittent repetition. Exact repetition means that the size, shape, colour, value and texture of objects or forms are the same and that they are used in the same direction at equal intervals. Repetition is the use of objects or forms with the same size, shape, colour, value, and texture, but different spacing or direction. Intermittent repetition occurs when more than one motif, form or object is used one after the other at certain intervals (Becer, 2011; Crowe & Lessau, 2011).
- **Harmony:** The presence of common or approximate similarities between two or three-dimensional objects. Harmony consists of aspects such as form, size, colour, value, texture, etc. Harmony is divided into four as physical harmony, service harmony, form harmony and stylistic harmony. Physical harmony is that the similarity of the elements that make up the design in terms of size, form, value, texture, direction and spacing constitutes physical suitability. Service harmony means that the forms used for the same purpose in design are connected within themselves. As for form harmony, it is that although some forms are not related to each other, they may be similar in terms of form. The closeness and unity between the elements in the design, and the harmony between the part and the whole are provided by stylistic harmony (Güngör, 2016).
- **Contrast:** Contrast is the opposition between the design elements in a composition. It is such that each element becomes stronger according to its relationship with the other. Contrast can be achieved by juxtaposing the opposite of any element (Jormakta, 2012; Öztuna, 2007).
- **Hierarchy:** Hierarchy is a basic design principle that connects two opposite ends through appropriate levels. Hierarchy is formed by ranking design elements according to their importance in a design. Elements of primary, secondary, or tertiary importance are scaled and arranged according to the degree of emphasis. Regular staggering is almost a necessity of the corridor. Hierarchy is divided into three: Central, peripheral, and axial (linear). Central hierarchy is an arrangement formed when more than one form, shape or element combine to form a centre point. Peripheral hierarchy is the arrangement formed by the

staggering of forms or elements on the periphery. Axial (Linear) hierarchy is the hierarchy made by arranging the forms from larger to smaller on an axis (Akçadoğan, 2006; Uçar, 2021).

- **Dominance:** In a composition, dominance is achieved when one element or a group of elements stands out in terms of scale, value, colour, or texture in relation to the others. All forms of dominance are established through contrast. The aim is to attract attention and create a visually pleasing arrangement that elicits a sense of aesthetic satisfaction in the observer.
- **Balance:** Balance is a fundamental design principle that ensures the harmonious presentation of the visual impact of design elements. It is a condition that arises from the equilibrium between two opposing forces. Balance is achieved through the relationships of objects, forms, colours, textures, directions, tonal values, intervals, and measurements in a design. Balance is classified into two types: symmetrical (formal) balance and asymmetrical (informal) balance. Symmetrical balance is formed by the repetition of elements in the same situation according to an axis. Asymmetrical balance, on the other hand, is created by designing dissimilar objects in such a way that they can create equal visual weight during visual perception.
- **Unity:** The most basic way to ensure unity or integrity in a work is to ensure that each element used is related to the other. When we achieve unity within the design, the work gives the impression of completion.

2. Material and Method

In Trabzon, where very different social and physical building transformations have taken place in every period of the development process, the facades reflect both cultural and physical changes. In this study, it is aimed to evaluate the building facades on Kunduracılar Street, which forms the main spine of Trabzon and is intensively used, through the Basic Design principles (repetition, harmony, contrast, hierarchy, dominance, balance, and unity). This study differs from other studies in that it analyses all the basic design principles through historical and new architectural structures in the same texture, and that it conducts this analysis with the aesthetic concern of the facades that form the urban interface. In this regard, the findings presented in this study will provide architects designing new buildings within historic contexts with concrete insights into how fundamental design principles can be integrated into the early stages of the design process. In this way, the study is expected to serve as a guiding and exemplary reference.

The study is modelled on the facade examples of Kunduracılar Street, one of the main pedestrian axes of Trabzon. The samples were selected through a process of literature review, measurements, and photography. Prior to the selection, various street samples were evaluated, and in order to narrow the scope of the study, focus was directed toward Kunduracılar Street. Seven contiguous buildings located along this axis were identified as the sample area of the study. These buildings are aligned along a linear route on the street, and one of them distinctly diverges from the others with its seven form, introducing a notable visual difference in the

streetscape. The selection of these seven specific buildings was based on their representation of formal diversity in facade composition, thereby allowing for a comparative evaluation in terms of fundamental design principles. The selected buildings were sequentially coded and incorporated into the analysis process (Figure 1).



Figure 1. Figure 1. The buildings selected for the study on Kunduracılar Street (site plan drawn by the author on the 2024 current map).

This study was structured using a qualitative research approach, appropriate for analysing architectural elements within their urban and cultural contexts. The research methodology combines literature review with visual analysis methods commonly employed in qualitative architectural studies. The primary data collection techniques included the analysis of visual materials -specifically architectural photographs and facade documentation- supplemented by observational records made during on-site visits. The literature review served as the foundational step, establishing a theoretical framework based on fundamental design principles such as repetition, harmony, contrast, hierarchy, dominance, balance, and unity. Following this, fieldwork was conducted along Kunduracılar Street, a significant pedestrian axis in the historical urban fabric of Trabzon. During the site investigation, photographic documentation and visual surveys were systematically carried out to capture the facades of seven historical buildings selected as case samples. Visual data obtained from field documentation were interpreted through a design-based reading of architectural elements, focusing on how fundamental design principles manifest in each facade. Some buildings were analysed through schematic breakdowns demonstrating the direct presence of specific principles, while others were examined through descriptive visual interpretation, revealing how individual components contribute to the overall architectural expression.

Kunduracılar Street is a 450-meter-long street starting from Semerciler Street and extending from İskele Street to today's harbour. It is connected to the Old Erzurum Road and the Iranian transit road from the south. The section of this commercial artery located in the centre of Trabzon between Gazipaşa Street and Cumhuriyet Street is a pedestrian-shopping area. This street is also the Kemeraltı-Meydan connection, which is a part of Trabzon's historical and cultural heritage (Altınay and Bilgimöz, 2015). The street was closed to traffic in 1985 (Özkan, 2017), and in the same year, an area of approximately 1.5 kilometres covering the main axis and the connecting roads feeding the axis was designated as a protected area. In 2002, a Conservation-Renovation-Revitalization Study was conducted in cooperation with Trabzon Municipality and Karadeniz Technical University (Çevik et al., 2010; Çevik et al., 2008) (Figure 2).



Figure 2. Kunduracılar Street (Şeyma Bayram's Archive, 2025).

3. Findings

The facades of seven adjacent buildings on Kunduracılar Street were analysed based on the Basic Design principles (repetition, harmony, contrast, hierarchy, dominance, balance, and unity).

The building coded B1 was constructed with a skeleton construction system, using stone material and has a total floor area of 285 m². This single-storey building is used for commercial function. The window openings and jambs on the facade of the building are arranged with a certain aesthetic understanding. In this arrangement, if we consider the unit with two windows and a shop window as “a”, it forms a repetition on the facade of the building as a-a-a-a-a-a-a-a-a-a. This regular repetition creates a rhythm on the facade of the building and provides a visual continuity. The corbels between the windows on the facade and the commercial unit showcase increase the aesthetic value of the buildings while also contributing to their functionality. These elements ensure that the facade has a symmetrical balance on the vertical axis. While this symmetrical balance gives the viewer a sense of integrity about the building, the principles of repetition and appropriateness on the facade are extremely important for the aesthetic and functional unity of the building. The harmony of form, size and spacing in the facade design of the building increases both visual aesthetics and ease of use. There is no principle of contrast and dominance on the facade of the building (Figure 3).

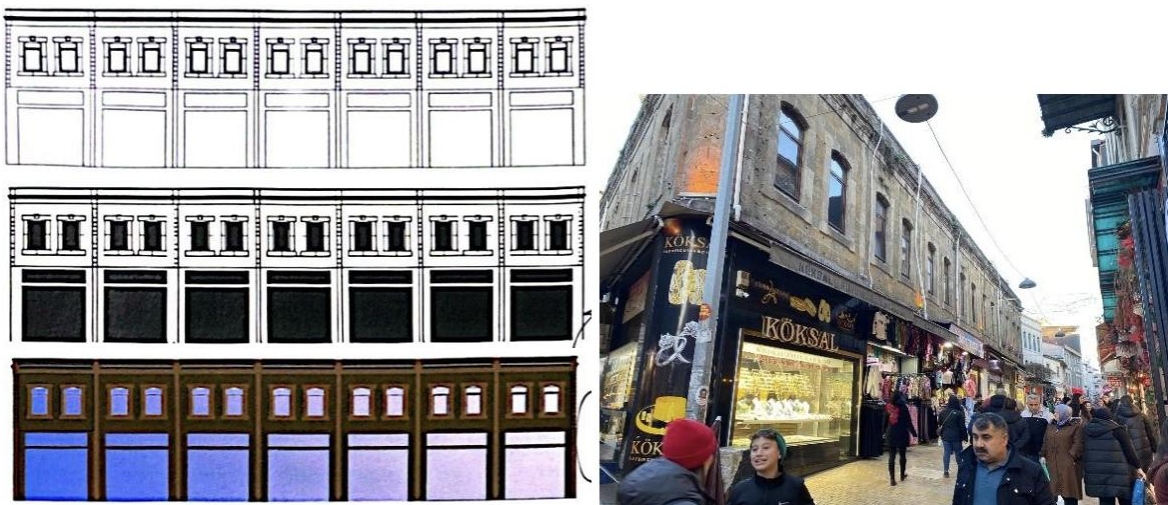


Figure 3. Drawings and visual of the building coded B1 (Şeyma Bayram's Archive, 2025).

This building coded B2 is constructed with a skeleton construction system using reinforced concrete and has a total floor area of 160 m². This 3-storey building is used for commercial and office buildings. On the facade of the building, there is a principle of repetition in the window openings and joinery, and in the frames around the windows. While there is a-a-a-a arrangement in the window openings and frames around the window frames of the 1st and 3rd floors, the window frames of the 2nd floor have an alternating repetition pattern as a-b-a-b-a-b-a. The harmony of form, size and spacing in the facade design of the building provides visual aesthetics. On the facade of the building, hierarchical pulls from the whole building to the window openings provide protection. There is a vertical axis symmetrical balance in the building. In addition, unity is provided thanks to the aesthetic language unity in the building. The principle of contrast and dominance is not detected on the facade of the building (Figure 4).

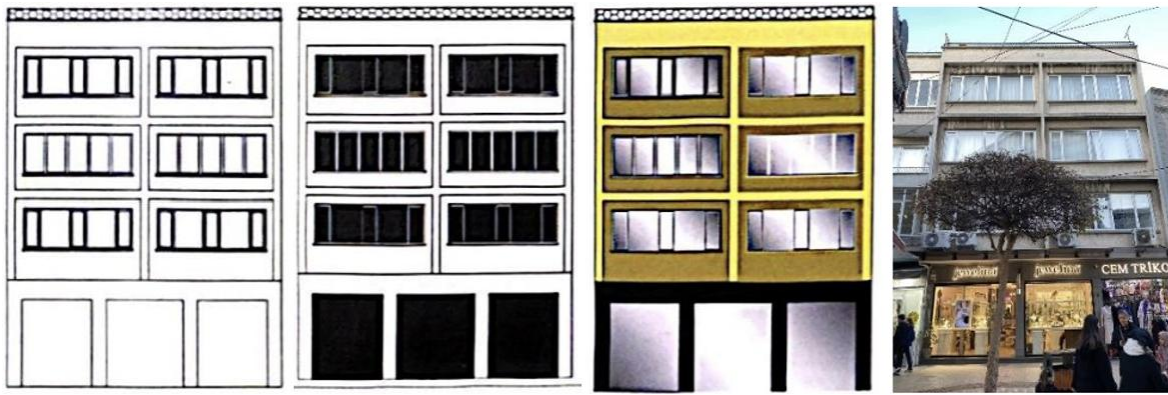


Figure 4. B2 coded building drawings and visual (Şeyma Bayram's Archive, 2025).

This building coded B3 is constructed with a skeleton construction system using reinforced concrete and has a total floor area of 56 m². This 2-storey building is used for commercial function. Since the facade of the building is covered with advertising signs, it is difficult to determine certain aesthetic principles. Design principles such as repetition, appropriateness, contrast, and correspondence cannot be clearly observed in the facade design. However, the size of the billboard has a significant impact and dominates the facade, and these billboards dominate the exterior appearance of the building to a great extent while shaping the overall aesthetics of the building. The building has a symmetrical balance on the vertical axis. Vertical symmetry reinforces the vertical orientation of the building (Figure 5).

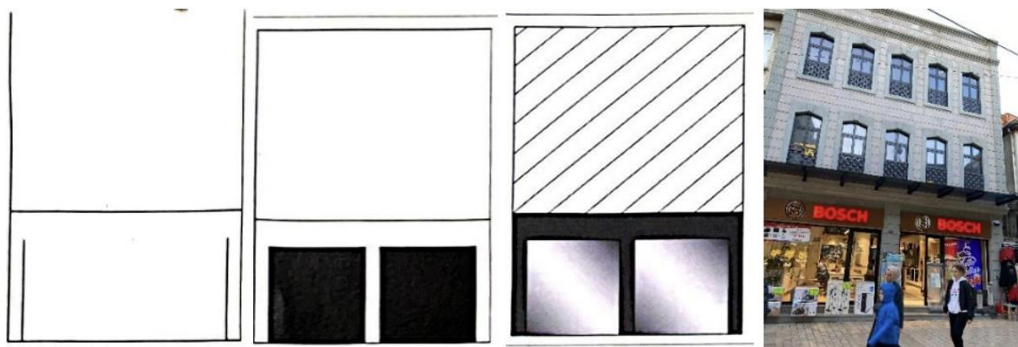


Figure 5. B3 coded building drawings and visual (Şeyma Bayram's Archive, 2025).

This building coded B4 is constructed with a skeleton construction system and is made of reinforced concrete and has a total floor area of 85 m². This 1-storey building is used for commercial function. Since the facade of the building is covered with advertising signs, it is difficult to determine certain aesthetic principles. Design principles such as repetition, appropriateness, contrast, and correspondence cannot be clearly observed in the facade design. However, the size of the billboard has a significant impact and dominates the facade. These billboards dominate the exterior appearance of the building to a great extent and shape the overall aesthetics of the building. There is an asymmetrical balance on the vertical axis (Figure 6).



Figure 6. B4 coded building drawings and visual (Şeyma Bayram's Archive, 2025).

This building coded B5 is constructed with a skeleton construction system using reinforced concrete and has a total floor area of 250 m². This 2-storey building is used for commercial function. On the facade of the building, there is a principle of repetition in the window openings and joinery, and in the frames around the windows. In addition, the dark colour used in the window jambs and the central axis of the building dominates the facade. The harmony of form, size and spacing in the facade design of the building provides visual aesthetics. The building has a vertical axis symmetrical balance. In addition, unity is achieved through the unity of aesthetic language in the building. There is no principle of contrast and hierarchy on the facade of the building (Figure 7).



Figure 7. B5 coded building drawings and visual (Şeyma Bayram's Archive, 2025).

This building coded B6 is constructed with a skeleton construction system and is made of reinforced concrete, and has a total floor area of 25 m². This 3-storey building is used for commercial function. There is a repetition between the 2nd and 3rd floor facades. The facade design of the building is stylistically appropriate. The building has a vertical axis symmetrical balance. In addition, unity is achieved through the unity of aesthetic language in the building. The principle of repetition, contrast, dominance and hierarchy is not detected on the facade of the building (Figure 8).

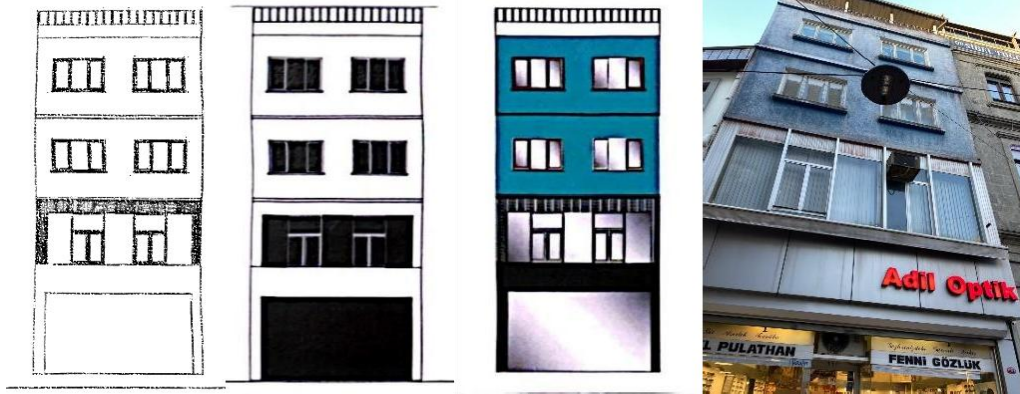


Figure 8. B6 coded building drawings and visual (Şeyma Bayram's Archive, 2025).

The building coded B7 was built with masonry construction system, using stone material and has a total floor area of 185 m². This 3-storey building is used for commercial purposes on the ground and 3rd floors, while the 1st and 2nd floors are used for legal audit functions. The harmony of form, size and spacing in the facade design of the building provides visual aesthetics. The building has a vertical axis symmetrical balance. The principle of repetition, contrast, dominance and hierarchy is not observed on the facade of the building (Figure 9).



Figure 9. B7 coded building drawings and visual (Şeyma Bayram's Archive, 2025).

In the light of all this information, the principle of repetition on the facades of the buildings on Kunduracılar Street has created an aesthetic continuity with regular motifs on the facades, while providing visual integrity between historical and modern buildings with the harmony of conformity, colour and material. Although contrast was rarely used, it added attractiveness with distinct colour and form differences. Hierarchy created focal points by emphasizing certain elements in some buildings. The principal dominance is observed through the dominance of elements such as billboards. The principles of balance and unity have created a strong sense of integrity and harmony in the user's perception thanks to the symmetry and common

aesthetic language on the facades (Table 1).

Table 1. Basic Design principles on the facades located on Kunduracılar Street (created by the author).

	Repetition	Harmony	Contrast	Hierarchy	Dominance	Balance	Unity
B1							
B2							
B3							
B4							
B5							
B6							
B7							

The facades on Kunduracılar Street, while individually reflecting the application of basic design principles, also collectively form a distinctive urban silhouette that contributes to the spatial identity of the street. This silhouette is not merely a sum of independent elevations but represents a coherent urban composition shaped by architectural rhythm, proportion, scale, materiality, and visual continuity. In this context, the buildings analysed in the study demonstrate a formal alignment and rhythm, especially through the repetition and balance principles, which foster a harmonious streetscape. Despite their varying construction dates, styles, and materials, the facades contribute to a collective visual order. The symmetrical arrangements, rhythmic window placements, and consistent use of materials such as stone and plaster establish a common aesthetic language. This visual unity across adjacent buildings enables the street to be perceived as a continuous urban facade rather than fragmented individual buildings. Of particular interest is the triangular building within the selected sample, which introduces deliberate contrast through its geometry. Rather than disrupting the silhouette, this variation strengthens the perception of hierarchy and adds a focal point within the urban composition. Such contrast within continuity exemplifies how design principles can foster both unity and diversity in a cohesive way, creating aesthetically enriched environments. Therefore, this study underscores that the street silhouette emerges not only from the repetition of elements but also from the spatial and visual relationships between them. For practicing architects, this highlights the importance of considering facade composition as a collective dialogue between buildings. The design of new structures within historical urban fabrics should engage with adjacent facades not in isolation but through contextual integration -respecting existing rhythms, scales, and material palettes while allowing space for calculated contrasts that enhance urban experience.

4. Conclusion

This study examines the facades of the buildings on Kunduracılar Street in Trabzon within the framework of basic design principles and reveals the effects of these principles on the historical texture and their contribution to user perception. The findings obtained during the study enabled the facades to be evaluated from aesthetic and functional perspectives and provided an opportunity to analyse the impact of design principles on users.

First, the principle of repetition was observed on the facades of many buildings on Kunduracılar Street, creating a sense of continuity in terms of aesthetics and leaving a lasting impression on the user's memory. Regularly repeating motifs in the window and door openings of the buildings created a rhythmic visual language on these facades. This visual continuity, while preserving the historical texture of the buildings on the street, contributed to the users to feel

a sense of integrity while navigating in this space. The principle of appropriateness is achieved through the harmonious use of features such as colour, form, and size in facade designs. Harmony is reinforced by the similarity of materials and details on the facade surfaces of the buildings. For example, the stone and concrete materials used on Kunduracılar Street have maintained a similar aesthetic language in different buildings. Thus, a visual harmony was achieved between historical and modern buildings and a unity was created in user perception.

The principle of contrast was rarely used in the buildings analysed. However, in the existing examples, it has been observed that the facade becomes remarkable thanks to colour differences or form contrasts. For example, the dark colour details used in some buildings have created a contrast on the facade, emphasizing certain areas. This contributed to users finding these facades more striking and making them more easily memorable. The principle of hierarchy was applied to some buildings on Kunduracılar Street, and a visual order of importance was created by emphasizing certain elements. Hierarchical arrangements, especially in window openings or frame details, created a focal point on the facade and attracted the attention of the users. The principle of sovereignty is also evident in some facades. For example, elements such as billboards become dominant in certain buildings, dominating a large part of the facade design. This dominance has led users to perceive this element first about that building. However, rather than creating a homogeneous perception in terms of facade aesthetics, this situation has created a remarkable accent effect. The principle of balance is achieved in the form of symmetrical or asymmetrical balance in most of the facades analysed.

Symmetry on the vertical axis was observed especially in buildings that preserve the historical texture, and this order presented the user with a solid building image. In buildings where asymmetrical balance is preferred, a visually more dynamic aesthetic is provided. The principle of unity created a common aesthetic language between the buildings on the street, providing a sense of integrity in the user's perception. When the design principles were used together, an aesthetic harmony was achieved throughout the street and this helped users to perceive Kunduracılar Street in a single historical integrity.

In response to the aim outlined in the introduction -to explore the application of design principles and provide insights for future architectural practice- this study demonstrates that facade compositions, when assessed holistically, can guide architects in making context-sensitive design decisions in historical environments. The findings show that applying design principles at both building and street scales supports visual continuity, contextual harmony, and user perception of the urban fabric.

Thus, the study not only contributes to the academic discourse by providing a methodological framework for facade evaluation, but also offers practical recommendations that can aid architects and urban designers in developing aesthetically and contextually compatible designs. It emphasizes that facades should be regarded not merely as architectural surfaces, but as urban interfaces that connect people, buildings, and cities over time (Figure 10).

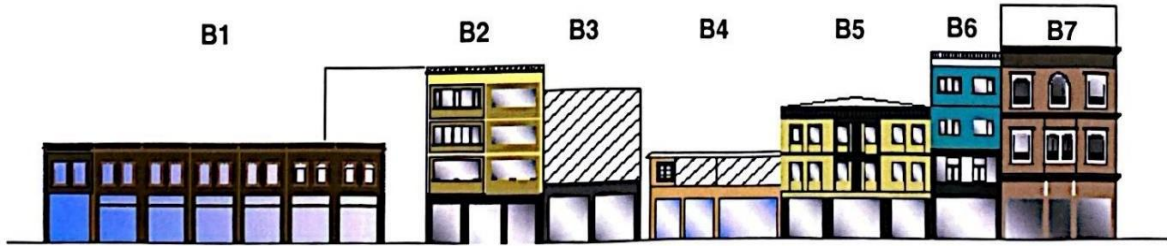


Figure 10. Silhouette of Kunduracılar Street (Şeyma Bayram's Archive, 2025).

Based on the findings obtained in this study, several recommendations can be proposed for future research and practical applications within the field of architecture. Future studies may include a wider selection of buildings from Kunduracılar Street or comparable historical streets to validate the synthesis and further examine the collective aesthetic and spatial dynamics of urban silhouettes. A comparative analysis of historical photographs and current facade conditions could reveal the evolution of facade design over time, providing insights into the continuity and transformation of urban identity. The outcomes of this study can be translated into design guidelines or facade codes for municipalities to regulate new developments in historical areas, ensuring architectural compatibility without stifling creativity. Future research can benefit from collaboration with disciplines such as urban sociology, environmental psychology, or heritage conservation to enrich the understanding of facades not only as design products but as socio-cultural artefacts.

Declaration of Ethical Standards

The article complies with national and international research and publication ethics.

Ethics Committee Approval was not required for the study.

Conflict of Interest

There was no conflict of interest.

Authors' Contributions

The author contributed alone to the article and takes full responsibility for the content and any modifications made during this process.

Declarations

During the preparation of this work the author used (DeepL Translator) in order to for academic language control. After using this tool/service, the author reviewed and edited the content as needed and takes full responsibility for the content of the publication.

Originality Report

The article has been confirmed that it does not contain any plagiarism according to the originality report obtained from the Turnitin software.

Notes

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References

- Akçadoğan, İ. İ. (2006). *Temel sanat eğitimi ve dijital ortam*. İstanbul, Turkey: Epsilon Publications.
- Akkurt, E., & Aykal, F. D. (2021). Cephe algısında Gestalt Kuramı'nın etkileri: Diyarbakır Mahabad Bulvarı değerlendirmesi. *Online Journal of Art & Design*, 9(1).
- Alishah, M., Ebrahimi, A., & Ghaffari, F. (2016). The role of buildings facades on urban landscape, case study: Old context of Sari. *TOJDAC*, 6, 1347–1356.
- Altınay, M. & Bilgimöz, S. (2015). Alışveriş merkezlerinin tercih edilme nedenleri ve rekreasyonla ilişkisi. *Journal of Recreation and Tourism Research*, 2 (3), 37-47.
- Anderson, J. (2011). *Mimari tasarım, mimarlık temelleri serisi 03*. İstanbul, Turkey: Literatür Publications.
- Becer, E. (2011). *İletişim ve grafik tasarım*. Ankara, Turkey: Dost Bookstore.
- Crowe, N. & Lessau, P. (2011). *Notes for architects and designers*. New Jersey, USA: Wiley.
- Civcir, E. (2015). *Temel tasarım ve tasarım ilkeleri*. Ankara, Turkey: Akademisyen Bookstore.
- Çevik, S., Vural, S., Tavşan, F., & Aşık, Ö. (2008). An example to renovation-revitalisation works in historical city centers: Kunduracılar Street/ Trabzon-Turkey. *Building and Environment*, 43 (5), 950-962.
- Çevik, S., Vural, S., Tavşan, F., & Aşık, Ö. Kentsel koruma-yenileme canlandırma projelerine bir örnek: Trabzon Kunduracılar Caddesi, 1st National Architectural Conservation Project and Applications Symposium, 05-06 February 2010, Ankara.
- Erim, G. (2011). Temel tasarım dersinde öğrencilerin estetik duyarlılıklarını ve yaratıcılıklarını geliştirme üzerine örnek çalışma. *Uludağ Üniversitesi Eğitim Fakültesi Dergisi*, 24 (2), 487- 501.
- Gök, E. (2019). Güncel konut cephe tasarım anlayışının temel tasarım ilkeleri doğrultusunda Fenerbahçe Faruk Ayanoğlu Caddesi örneğinde incelenmesi (Master thesis). İstanbul Commerce University Institute of Science, İstanbul.
- Güngör, İ. H. (2016). *Temel tasar*. İstanbul, Turkey: Patates Baskı Publications.
- Hasol, D. (2022). *Ansiklopedik mimarlık sözlüğü*. İstanbul, Turkey: YEM Publications.
- Hossein Askari, A., Dola, K. B., & Soltani, S. (2014). An evaluation of the elements and characteristics of historical building facades in the context of Malaysia. *Urban Design International*, 19, 113-124.
- Konuk, G. (1989). Kamu mekanları tasarımında cephe düzeni. *Kamu mekanları tasarımı ve kent mobilyaları sempozyumu 1*, (pp.54-55). İstanbul, Turkey: Mimar Sinan University Publications.
- Jormakka, K. (2012). *Adım adım tasarım yöntemleri*. İstanbul, Turkey: Yapı Endüstri Merkezi.
- Orhan, N. T. (2019). Tasarım ilkeleri doğrultusunda cephe karakterleri: Konya Şefik Can Caddesi örneği [Master thesis]. Konya Technical University Institute of Science, Konya.
- Özel, E., & Sağsöz, A. (2021). Geleneksel konutların sürdürülebilir tasarım bağlamında Temel Tasarım İlkeleri ile incelenmesi: Kaleiçi/Antalya örneği. *Journal of International Social Research*, 14(78).
- Özkan, D. G. (2017). Kentsel rekreasyon alanı olarak alışveriş caddelerinin incelenmesi: Trabzon örneği. *Uluslararası Bilimsel Araştırmalar Dergisi*, 2 (2), 444-453.
- Özer, B. (2000). *Kültür sanat mimarlık*. İstanbul, Turkey: Yem Publications.

- Öztuna, H. Y. (2007). *Görsel iletişimde temel tasarım*. İstanbul, Turkey: Yorum Art and Publications.
- Rezafar, A. (2024). Barriers to ensuring continuity in urban facades identity, legal tools-based analysis: The case of Iran. *Megaron*, 19(3).
- Sacripanti, M. (1983). Cephelerin ardında. *Yapı Dergisi*, 50 (4), 31-33.
- Sadeghifar, M., Pazhouhanfar, M. & Farrokhzad, M., (2019). An exploration of the relationships between urban building facade visual elements and people's preferences in the city of Gorgan, Iran. *Architect Eng Des Manag*, 15(6), 445–458.
- Şenyiğit, Ö. (2010). Biçimsel ve anlamsal ifade aracı olan cephelerin değerlendirilmesine yönelik bir yaklaşım: İstanbul'da Meşrutiyet ve Halaskargazi Caddeleri'ndeki cephelerin incelenmesi [PhD Thesis]. Yıldız Technical University Institute of Science, İstanbul.
- Şenyiğit, Ö., & Altan, İ. (2011). Anlamsal ifade aracı olan cephelerin değerlendirilmesine yönelik bir yaklaşım: İstanbul'da Meşrutiyet Caddesi'ndeki cephelerin incelenmesi. *Megaron*, 6(3).
- Şeyma Bayram's Archive. (2025). Kunduracılar Street, Personal Archives, Trabzon, Turkey.
- Tezer, N. (2017). 1930 – 1940 Yılları arasında İstanbul'da inşa edilmiş apartmanların cephe biçimlenişleri [Master Thesis]. İstanbul Technical University Institute of Science, İstanbul.
- Türk Dil Kurumu (2023). *Türkçe sözlük*. İstanbul, Turkey: Türk Dil Kurumu Publications.
- Uçar, T. F. (2021). *Görsel iletişim ve grafik tasarım*. İstanbul, Turkey: İnkılap Publications.
- Vandevivere, I. (1983). Naif mimarlıkta cephe: Bir düşün anıtı, *Yapı*, 50 (4), 41-44.