READING ANKARA APARTMENT BALCONY BALUSTRADES (1950-75) AS MATERIAL CULTURE AND THEIR DIGITAL DOCUMENTATION

Zeynep TUNA ULTAV*, Daniele SAVASTA**, Meltem Ö. GÜREL***

* *Corresponding Author;* Yaşar University, Faculty of Architecture, Department of Interior Architecture and Environmental Design, İzmir, TÜRKİYE.

** İzmir University of Economics, Department of Visual Communication Design, İzmir, TÜRKİYE.

*** Yaşar University, Faculty of Architecture, Department of Architecture, İzmir, TÜRKİYE.

INTRODUCTION

Wrought iron, in forms of intricate front doors, fences, and balustrades, has been a significant feature of domestic building culture and decorative arts since the 19th century. Balustrades of apartment balconies, considered as craftwork, can be considered an extension of this building culture, reflecting contemporary designs of different eras. This paper focuses on apartment balcony balustrades built between 1950 and 1975 in Ankara as a noteworthy material evidence of modern Turkish architecture and sets out to demonstrate their relatively unexplored role in the preservation of Turkey's architectural heritage, and their contribution to a more extensive reading of the built environment. Wrought iron balustrades can be considered a micro representation of modern architectural heritage, therefore their preservation is arguably pertinent with respect to values linked to their roles as a part of material culture. In this sense, this study addresses three main questions: Why are they regarded as substantial elements of material culture? Why should they be preserved? How does digital documentation serve as a useful tool in the preservation processes? The examples were collected through a research project entitled "Interactive Digital Exhibits to Experience Architectural Heritage: The Case of Balcony Balustrades of Ankara (1950-1975)," which documented and digitalized the balcony balustrades of 1,850 apartment buildings built between 1950 and 1975 in Ankara's Çankaya District (**Figure 1**) **(1)**.

Ankara has an important place in Turkey's modernization story starting with the foundation of the Republic of Turkey in 1923. During its transition from a small town to the capital of the new Republic, Ankara was the scene of various original and important planning decisions, with architectural work being produced in line with these decisions (Ulusoy, 2013). Republican modernization project involving new political, economic, social, and cultural models first came to life in Ankara. During the War of Independence, Istanbul's population decreased, whereas Ankara was

2. Günay describes Ankara as a "testing ground for the republican's administration's experiments to develop a new society and its city in conformity with the rules of modernism" (Günay, 2013, 12). Similarly, Bozdoğan and Akcan describe "the making of a modern capital city out of a small, poor, malaria ridden and dusty town" as an "an epic accomplishment of a new regime" where architecture acted as a powerful actor (Bozdoğan and Akcan, 2012, 26).

3. The settlements of detached/semi-detached houses can be exemplified with Tandoğan Mebusevleri Settlement, Keçiören Kalaba Mebusevleri Settlement, Kavaklıdere 14 Mayıs Housing Cooperative, Kavacık Subayevleri Cooperative, and Keçiören Merbank Houses; apartment block settlements can be exemplified with İsrailevleri, Kütüphaneevleri, Yeşiltepe-Yıldıztepe Blocks, Maliye Houses, Konservatuvar Houses, Eti Blocks, İlbank Blocks, Basın Sitesi, Eser Sitesi, İş Bank Blocks, and Dostlar Sitesi; and single multi-story apartment buildings can be exemplified with Cinnah 19 Apartment Block, 96'lar Apartment Block, Hayat Apartment Block, Mintrak Apartment Block, and İpek Apartment Block (Şumnu, 2018). For further discussion of prominent housing complexes built in Ankara in 1950s and 1960s, also see Bayraktar, 2017.

4. With its 124 recent neighborhoods, the border of Çankaya district today is much broader than the time period of the study, which focused on 41 neighborhoods.

flooded with soldiers, civil service candidates, and job seekers even before it was declared as the new capital. Therefore, there was an urgent need for improvement in Ankara's urban conditions during the establishment of the national assembly and successive military victories (Cengizkan, 2002) **(2)**. While initially population growth was mostly due to bureaucrats arriving from Istanbul, this changed later as the masses migrated from the immediate surroundings. Ankara then experienced a serious housing problem, which brought housing and urban planning practices to the fore (Bayraktar, 2017). Among these practices, housing cooperative initiatives, starting with the Bahçelievler (houses with garden) in 1934, became more widespread following the enactment of laws encouraging housing construction in 1950s (Cengizkan, 2002). In this decade, three types of housing production attracted particular attention: detached/semi-detached houses, apartment blocks, and single multi-story apartment buildings (Cengizkan, 2000; Cengizkan, 2002) **(3)**. In this context, Çankaya became a leading district in the construction of prominent housing examples, including the era's emerging apartment building typology. For this reason, the study focused on Çankaya District that was densely populated during the time period of the study **(4)**. The selection of these neighborhoods was based on their historical significance in the development of apartment building typology within the city. All streets in the district were visited and all apartment buildings with 'simple' balustrades in line with the architectural ideas of mid-century modernism were photographed. The following analysis narrowed the selection down to 90 balustrade designs, which were repeatedly used within the project's geographical boundaries. Further data were gathered on these 90 balustrades through archival study.
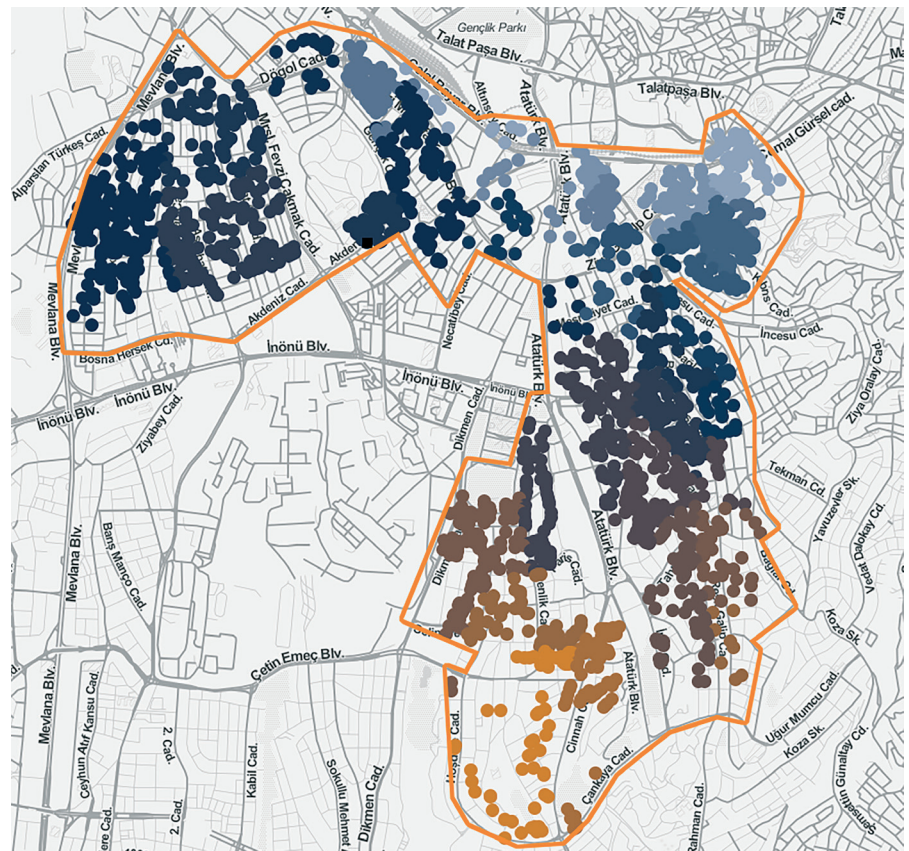

Figure 1. Map showing the research area borders in Çankaya District and the locations of the balcony balustrades of the 1,850 apartment buildings (Savasta archive)

5. İlhan Tekeli (2012) divides Turkey's housing history into four periods: 1923-1950; 1950-1965; 1965-1980; and post-1980s. When we sorted the dates with regard to our findings from the project tags of the selected apartments, we found that the selection finished in 1975. Therefore, we defined 1975 as the end of the study period.

6. As Bozdoğan (2016) states, during the early 1950s, with the advent of liberal economics and the Democrat Party's populist politics, major cities in Turkey witnessed a vast migration from the countryside, which generated an extensive need for urban housing. Among the significant developments were the establishment of Real Estate and Credit Bank to finance urban housing, and the first collective housing projects using reinforced concrete construction. Bozdoğan (2016, 17) further states that "Turkey's urban population, which grew by 20.1 percent in the decade 1940-1950, reached a growth rate of 80.2 percent between 1950 and 1960." One of the most important laws of the multi-party period was the Building Promotion Law passed in the first year of the Ministry of Building and Housing in 1958 (Sey, 1998).

7. See the article about lighting fixtures by Artemis Yagou, who reports a similar sense of delight regarding her study of lighting fixtures in modern Athens apartment buildings, describing them as "the highly expressive assertion of what it meant to be 'modern' in Athens" (Yagou, 2007).

8. As Frank Trentmann (2016) suggests, in the last few hundred years, our lives have been dominated by the achievement, flow, and use of things, namely consumption. He states that taste and lifestyle characterize our identity and the way that others see us.

The primary reason for focusing on the years 1950 to 1975 was because the documentation revealed that wrought iron balcony balustrades of the selected apartment buildings were produced during this period **(5)**. Other reasons include changes in housing production under Democrat Party rule (1950-60), particularly the implementation of liberal economic politics, the development of the private sector, improvements in the construction industry, technology and materials, and decrease in traditional workmanship in the construction sector. Starting in the 1950s, multistory apartment buildings proliferated to become the dominant housing type in Turkish cities, mainly due to the demand for housing caused by population growth and rapid urbanization. This led to the introduction of the Flat Ownership Law in 1965, which encouraged a build-sell model in which the contractor was a key actor who aimed to maximize profits and significantly rationalize the design approach. As Mübeccel Kıray pointed out, apartments facilitated the development of the middle classes by providing affordable housing options with modern amenities. Initially, apartment buildings in Ankara were constructed to house politicians, government staff, military personnel, bureaucrats, and foreign embassy personnel. During the 1950s, the city remained a significant urban hub of apartment production even though modernization initiatives in architecture and urbanism shifted from Ankara to Istanbul under the Democrat Party's modernization policies **(6)**. As part of this production, wrought iron balcony balustrades were commonly used as tools to dress the rational façades of apartment buildings. Although they also appeared in other cities, the documentation indicates that they were used more frequently in modest Ankara apartment buildings, showcasing a wide range of designs.

More recently, these balustrades are disappearing due to urban renewal initiatives based on government policies, and the ongoing practice of replacing older buildings with more profitable newer ones. Meanwhile, the surviving balustrades on the older buildings remain as decorative gestures that please the eye of passers-by while simultaneously representing the modernist design language within Ankara's architectural repertory **(7)**.

By emphasizing their significance as mundane material evidence reflecting the city's historical construction practices and present visual character, the study advocates for the documentation of these elements. It contends that digital documentation, conducted as part of the research project, plays a crucial role in preserving their memory, particularly when faced with the imminent risk of demolition. This documentation enables an alternative interpretation of the city and safeguards its cultural heritage. The approach of the study is based on the belief that material qualities of balcony balustrades have the potential to enrich the understanding of the built environment beyond the mainstream architectural histories of the city. As Reyner Banham puts it, "architectural historians spent too much time looking at canonic works," rather than at "the everyday and the ordinary" (Banham, 1970, as cited in Forty, 2014). Mundane buildings of domestic architecture, such as apartment buildings, and their material components also deserve in-depth studies as social objects conveying information about the society. Furthermore, their documentation is pertinent because they are more vulnerable to rapid transformation or demolition. Balcony balustrades are subject to even more frequent transformation than the buildings themselves, consumed and revised according to their owners' changing tastes or lifestyles **(8)**.

Figure 2. Samples from the digitally documented apartment buildings of the research project (Tuna Ultav archive)

The most obvious cultural belief associated with material objects relates to value (Prown, 1982). It is essential to document and preserve these balustrades for their multifaceted significance. Firstly, they hold document value, offering insights into the social, economic, and cultural aspects of society within that space. Secondly, they possess architectural value, serving as representations of the modernist architectural ideology of that era **(9)**. Document and architectural values both refer to concrete indicators of the understandings, needs, and relations of the period when the balcony balustrades appeared. Departing from the balustrades' representative and communicative roles inherent in document and architectural values, this study argues for their preservation on three main grounds: the authenticity aspect, the technological aspect, and their role in tracing the relationships among various actors of the construction processes.

The studied 1,850 apartment buildings, typical of the local apartment building typology, were multistory prismatic structures with standard attributes (**Figure 2**). Rather than their architectural traits, the selection depended on the formal qualities and modern character of the balcony balustrades (**Figure 3**). Physically and conceptually distant from traditional architectural practices in Turkey, they displayed a playful but at the same

9. For a detailed discussion, see Madran (2006).

Figure 3. Samples from the digitally documented balustrades of the research project (Tuna Ultav archive)

time, abstract visuality typical of modern architecture. The analysis of balcony balustrades is reinforced by a combination of literature review and interviews. This approach allows for a broader understanding of the subject matter. Specifically, the study conducted interviews with three architects and six craftsmen who worked during that period. Additionally, interviews were carried out with three metalwork scholars or teachers, along with an architectural history scholar who conducted a parallel project in Beirut. These interviews, along with the photographs taken during the fieldwork, are used to explore the tripartite aspects defined above.

BALCONY BALUSTRADES AS MATERIAL CULTURE

Historians filter what they see in the past before re-presenting them based on their understanding of what is or is not important. Henry Glassie (1996) proposes that history begins with the will of the historian and speaking myths. The historian, he adds, dares to ignore most people or events, and selects and arranges a small number of facts to speak about humanity. In this view, history emerges as an archeological medium in which cultural materials accumulate, establish patterns, and provide context for writing. Culture is seen as a mental concept constructed by people with shifting experience. People agree on the importance of certain issues and link their futures through "compatible understandings," thereby creating a culture (Glassie, 1996).

Material culture refers to the physical objects created by people (Ferguson, 1977) **(10)**. This is fed by a transdisciplinary approach, analyzing not only different artifacts, but also the complex relationships between them and the societies in which they are situated (Saunders, 2017). Since people interact with material goods or objects as part of their daily lives, one can suggest that their living is greatly influenced by material culture. In other words, by studying these objects, one can deduce the value systems including "ideas, attitudes, and assumptions" of a specific society and generally during a specific time (Schlereth, 1982). Objects, as expressions of cultural identities, enable material culture studies to access a culture, and thus, understand its cultural code and social relationships through the objects' materiality (Vellinga, 2007). Therefore, material culture, being the object-based characteristic of the study of culture refers both to the material, as the study's subject, and to the understanding of culture, as its purpose.

Jules David Prown suggests that the word "material" in material culture incorporates objects as artifacts, objects created or adapted by people, but excludes natural objects. Thus, he proposes that material culture studies should include objects from different scales: a hammer, a plow, a microscope, a painting, a house or even a city (Prown, 1982). Accordingly, architecture can be considered as part of material culture: from the scale of an entire building to the smallest elements that constitute it. Architecture, being established in context, is seen as the most noteworthy element of material culture in archeology and anthropology (Bailey and McFadyen, 2010). As John Goss notes, a building is a material culture object constructed by a society and reflects its social relations as well as the progress level (Goss, 1988). In this respect, in addition to its physical attributes, a building can be considered as a cultural artifact, whose components belong to a wider material culture of a society. Similarly, Daniel Miller states that besides reflecting culture, buildings are an element in the reproduction of social relations through communicating social

10. Materials include "raw materials, technology, tools, techniques as well as the finished products" (Chilton, 1999, 1). The term "material culture" was first coined in 1843 by Prescott "in reference to the material civilization of Mexico in his travelogue." By the end of the 19th century, it was inextricable from the discipline of anthropology (Buchli, 2002). Daniel Miller (2010) states that at the time that material culture studies had an extremely low status within anthropology, objects hid their roles, assuming no importance.

11. The balcony section of the exhibition displayed several forms of balconies, such as "political balcony, social balcony, consumed balcony, filled in balcony, overstuffed balcony, micropolitical balcony, green balcony, etc." The balcony was described as sharing "ancestry with the veranda, terrace, loggia, or 'street in the sky'" yet unique among them owing to its cellularity and cantilever (*Balcony*, 2014, 816).

meanings (Miller, 2010). Along this line of thought, İlhan Tekeli (1996) focuses on the close relationship between dwellings and socialization, acknowledging the identity of social development stages and residential history stages. Uğur Tanyeli (2004) asserts that modern people cannot exist together without objects and spaces, and that acquiring and stacking artifacts and images in certain places and areas is a basic function in making people, humans. Such concepts are likely to be valid for façade design, such as decorating residential exteriors with images. As Anuradha Chatterjee (2014, 11) suggests, "surface is both superficial and pervasive, symbol and space; meaningful and functional; static and transitory, object and envelope … despite the disciplinary definition of architecture as space, structure, and function." The balcony, as such a surface, is an important element of an apartment building's façade. It can be described as "both a prime site of aesthetic and technical experimentation and a heavily charged articulator of the dependencies that exist between the public and private realms" (BK at the Biennale: Anatomy of a Balcony, 2014). In the catalogue of the 14th Architectural Biennale of the Venice Biennale with the theme "Fundamentals," Rem Koolhaas (2014, 17), the main curator of the "Elements of Architecture" Exhibition, describes the exhibition as "a new body of knowledge." The author suggests conducting a thorough examination of building elements, including floors, walls, ceilings, roofs, doors, windows, facades, balconies, corridors, fireplaces, toilets, stairs, escalators, and ramps. These commonly overlooked yet universally familiar architectural components hold the potential to unveil unexpected histories and narratives **(11)**. Moreover, as Carolin Aronis reveals, these architectural components constitute places in which urban public and private areas meet, creating potential meanings as elements of "urban liminal architecture" (Aronis, 2022, 475).

John Ruskin's theory of the adorned wall veil proposed that "good architecture evoked the image of a well-dressed body," and led to the redefining of architecture as "an entirely visual phenomenon" – as a surface (Chatterjee, 2014, 2). In this respect, balustrades add to the aesthetics of the building through the conception of the façade as adorned veil (Davidovici, 2004). During the 19th century, Gottfried Semper, Karl Friedrich Schinkel, and Louis Sullivan discussed the notion of architectural ornament as a necessary supplement (Picon, 2013). However, 20th century modernist art and design appeared to turn its back on craft, rendering the traditional craftsman extinct in the modernized world. Struggling to survive in the shadow of modernism, ornament's success depended purely on its ability to differentiate itself from earlier styles (Trilling, 2001). While resisting the use of ornament in architecture, modernist architects developed unconventional methods of ornamentation, such as Le Corbusier's employment of concrete formwork traces. Such approaches to ornament redefined its connections with the overall structure and proportions of the building (Picon, 2013). Despite the modernist denials, raising the question of whether ornament can bring insight into architecture, Antoine Picon (2013) argues that architectural ornament was intended not only for the purpose of pleasure but also to spontaneously stimulate spectators' senses and trigger both recognition and surprise. According to an interview with Mehmet Savaş (2020), a practicing architect at that time, balcony balustrades evoked a sense of surprise and playfulness as they disrupted the monotonous appearance of conventional facades:

> "Since the owners or the contractors wanted to get maximum benefit from zoning rights, our colleagues were in demand to enrich the monotonous

façades with balconies. In this case, balcony balustrades became important. Due to cost factors, most balustrades were initially manufactured with simple workmanship. However, in houses of over 100 square meters, balconies took on a prominent role in creating attractive façades. Owners showed their commitment to high quality of building by improving the building's façades through balcony aesthetics, guided by the taste of the architect. The popularity of a balustrade design was reflected in how often it was reproduced in other newly built apartments" (M. Savaş, personal communication, November 21, 2020).

As per Savaş's perspective, the repetition of balustrade patterns was a continuation of the architectural language in the sense that the ornament associated with the plasticity of façades established relationships with both the building and urban fabric (Balık and Allmer, 2016). Ornament is employed as an important transporter of meaning that reaches beyond the standard and direct legibility, allowing it to reference the rich architectonic language of which it is intentionally a portion Stuhlmacher, 2004). Wrought iron balcony balustrades of different designs served as tools to aestheticize the conventional façade treatments and became the major artistic feature for these façades (Güner, 2006), by emphasizing the tectonics and plasticity of the building.

Contrary to appearance, objects hold essential significance precisely because they often go unnoticed by our eyes. The less we are aware of them, the more their potential to shape our expectations. In other words, they have so much power on what happens that we are completely unaware of it (Miller, 2010). Wrought iron balcony balustrades are a part of a pool of other minor elements, such as entrance doors, door handles, apartment name and number signage, letterboxes, common area lighting fixtures, and garden fences. Through their so-called "hidden capacity" and unexplored potential, they provide significant clues about the wider material culture of which they are a part.

THREE GROUNDS REGARDING THE PRESERVATION OF ANKARA APARTMENT BALCONY BALUSTRADES

In the case of Turkey, the balcony as a building element has a limited history, and its key role in the Turkish building landscape appears to coincide with the rise of the apartment buildings. Ankara witnessed a rapid process of "apartmentalization" that commenced in the 1950s and gained momentum following the implementation of legislation on flat ownership in 1965. This legislation mandated standardized building designs due to the restrictions imposed by urban parcels (**12**). Thus, architects and contractors had to seek subtle ways of overcoming the monotony of this new façade form. Regarding the historical background of Ankara apartment balcony balustrades, the study suggests three main justifications for documenting and preserving balustrades as material culture: the authenticity aspect, the technological aspect, and their role in highlighting the relationships among various actors of the construction processes.

Authenticity Aspect

According to the declaration of ICOMOS (2017), "authenticity is the quality of a heritage site to express its cultural significance through its material attributes and intangible values in a truthful and credible manner." Problems of material authenticity, referring to an object's longevity and retention of all its qualities over time, arises from the tension between the

12. The construction of apartment buildings accelerated after Turkey's Flat Ownership Law of 1965, illustrated by the growth in the number of apartment buildings in Ankara from 279 in 1954 to 962 in 1965 (Tekeli, 2012). This promoted the build-sell model, and the ensuing production of apartment buildings as anonymous objects providing individual ownership of apartments within a building (Gürel, 2007).

tendency to preserve and repair, on the one hand, and the inclination to partly or completely replace, on the other (Balamir, 2014).

Another definition of authenticity concerns originality and uniqueness. As Picon (2013) states, the aim of employing ornament as a means of creating an extremely individual approach is generally to declare an identity and a unique vision. To evaluate the distinctiveness of balcony balustrades, it is important to consider their inherent authenticity, which is provided by the peculiarities of local craftsmen. This evaluation is based on observation and experience (**Figure 4**).

In line with their authentic value, balustrades of Ankara apartment balconies played a symbolic role when interpreted in the context of the period's architectural modernism. In other words, they contributed to the identity of apartment architecture during that period and, thus, contributed to architectural expression in general. Apartments of the 1950s and early 1960s, in particular, can be regarded as a tool of modernization, encompassing various dimensions; "an economic object, a social idea, a cultural expression, a domestic space, and a container of daily life and spatial practices" (Gürel, 2007, 15). Turkish architects and builders of this period considered modern apartments as a symbol of development, hygienic living conditions, higher living standards, and social status (Gürel, 2009), hence, a metaphor of modernization. The balustrades as a component of this modernist language together with other building elements helped to envision modern life. These buildings came to represent modernist characteristics, in which the balustrades became an area for experimentation for architects. This can be regarded as a unique

Figure 4. Balustrades from the research project illustrating authentic qualities (Tuna Ultav archive)

Figure 5. Modern language of several balcony balustrades from the research project (Tuna Ultav archive)

Figure 6. Several balcony balustrades from the research project illustrating ornamental qualities (Tuna Ultav archive)

opportunity to give full emphasis to the modern identity and modern language. In the first place, an effort made to emphasize that architectural language in the designers' decoration may be described as an effort by the owner or the contractors to embellish the building's plain appearance. Briefly, the role of Ankara's balustrades includes both representing the era's modernist language, and the search for an ornamental quality to provide each block with a particular identity (**Figures 5-6**).

Balcony balustrades, as strong visual elements in buildings, make a considerable contribution to the formal language of the buildings, and through craftsmen's unique touch, can provide authenticity in the face of the standard mass. In addition to their individual authentic identity, replication of balustrade patterns on an urban scale created the characteristics of the city's apartment buildings, and with it, an authentic urban identity. This identity is enriched via the repetition of similar elements within the city, forming visual images shared by the society

(**Figure 7**). As part of urban memory, identity value generally refers to a certain building identity as prominent elements of urban memory. Although the buildings examined here may not be regarded as canonical examples of their era, the frequently repeated patterns nevertheless create a memory value for Ankara's residents.

Technological Aspect

The second aspect that indicates the need for preservation of balustrades is related with their technological value **(13)**. John Macarthur proposes that materials have the power to develop a particular history, i.e., material being composed of both technique and content can be a tool for comprehending the mediums distinguishing different art disciplines (Macarthur, 2014). On the apartment façades, wrought iron balustrades accompanied the dominant material of the 20th century, that is, reinforced concrete. The interviewed craftsmen highlighted their knowledge of the

Figure 7. Similar balcony balustrade samples dispersed across Çankaya District (Tuna Ultav archive)

technical qualities of the material and the craft aspect of the balustrades.
For example, in his interview, craftsman Hayrettin Yıldırım (2021) **(14)**
described the laborious welding technologies that were used in ironwork
at the time: joints were made by heating the material to its melting point,
piercing it with a punch system, riveting, and welding (H. Yıldırım,
personal communication, January 20, 2021). The work was a labor-intensive
handcraft. All craftsmen described making iron balustrades entirely by
hand, without electric welding or pressing machines. Similarly, Yusuf
Özçatalbaş (2020), a metalwork scholar, recalled that craftsmen manually
created their own molds and molding systems, which demanded both
know-how and skills (Y. Özçatalbaş, personal communication, September
24, 2020). Another interviewee, Sedat Kızılkaya (2021), a craftsman who
practiced during the years, also mentioned the knacks of ironwork
technology at the time:

> "Later, just after industrialization started, production in Denizli [a city
> in Turkey] started to feature various motifs, in terms of the supply of
> preliminary material for making iron decorations for windows and
> balconies. The forge and the iron were brought to Denizli by local merchants
> and were purchased and assembled. There was no machine welding.
> Instead, we used riveting or welding the two parts by hand, by heating them
> with rivets or by a process called "hot welding". Later, with the introduction
> of drilling, and making rivets, the process of remanufacturing became a little
> easier, and more sophisticated with more beautiful results were even more
> beautiful […] Of course, we used to do the mantling ourselves. The iron
> to be used for the construction was piled on one side of the shop, stacked
> according to size, and taken to the construction site when needed. Things
> used to be built on site with anvils and then directly put in place, but now it
> is not like that" (S. Kızılkaya, personal communication, January 31, 2021).

Such anecdotes reveal the state of the construction industry and the
availability of technologies at the time. They also indicate the increasing
options in construction materials and the evolution of workmanship from
traditional methods and materials to contemporary ones. In this respect,
preserving balustrades as material culture and reading them as expressions
of technological references enrich our understanding of the era.

**Complex Relationships Among Various Actors of the Design and
Construction Industry**

The final aspect that underlines the significance of preservation is the
complex relationships among various actors of the design and construction
industry. The material object is a vehicle of intentions and designs of
a culture, as such, it can socially influence individual behavior (Dant,
2005). Architectural historiography investigates static attributes based
on style, the external practices of the actors, and the relationship of their
productions. According to Mary Ann Beecher (1998), such historical studies
create an understanding of the object's place in a larger context to ascertain
its importance. It is essential to recognize that architectural practice
depends not only on the architect as a sole author but also requires various
actors and the awareness of architectural history about the mediation of
these actors in design practice. Such a view brings an understanding that
design reaches beyond the object itself, towards the complex networks
of practices and discourses that surrounds it (Kelly, and Jamieson, 2019).
Therefore, anthropologists are interested in looking into material culture
because the reproduction and consumption of materials bring about
social and cultural relationships, which in turn, helps to create materials
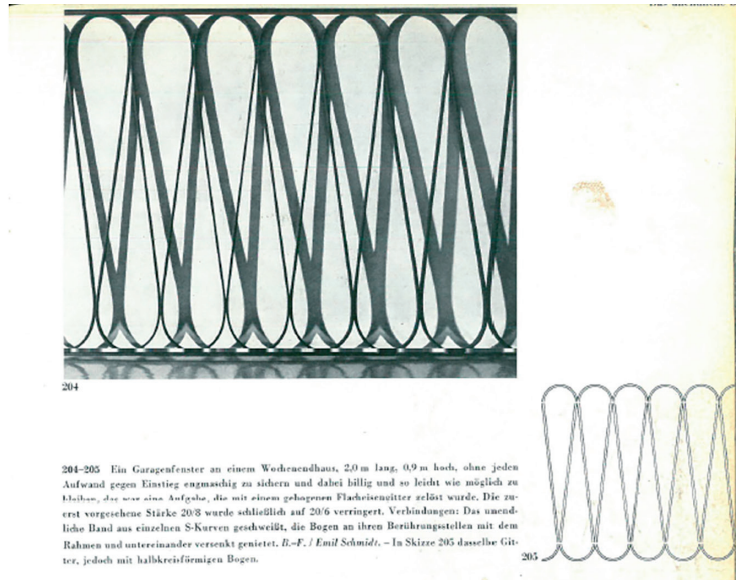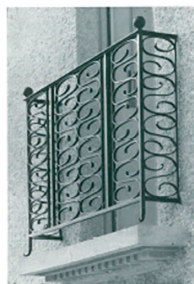(Vellinga, 2007).

Tekeli (2012) lists complex relationships among various actors within the housing realm, namely, tenants, owners, and producers (including architects and contractors), as well as local and central government entities. In case of balustrades, this list also includes craftsmen. To interpret social and cultural relationships, it is important to analyze interactions among architects, contractors, and craftsmen during design and construction, as well as among the craftsmen themselves. Interpreting the influence of these interactions is essential. **(15)**. During an interview, Nesrin Yatman (2021), an architect at the time, emphasized the significant collaboration among various actors involved in the construction of balcony balustrades. This collaboration encompassed the owner, contractor, architect, and craftsmen. There were inspirational sources visible in the city:

> "Of course, for these works at that time, such workmanship was not mass produced, as it is now. There were many individual masters who did the job well. The producer or the owner would see one and like it enough to copy it. That is why it has always been this way, that an iron balustrade used for an apartment building at one end of a street was reproduced at the other end, using the same craftsman and the same contractor, this was very common. Therefore, through the contributions of the owner, the producer, the architect, and the master craftsman, these buildings give a city a specific image" (N. Yatman, personal communication, March 4, 2021).

In his interview, Kadri Kalaycıoğlu (2020), a practicing architect at the time, reported that he designed all building components himself, from the balustrade detail to the entire building (K. Kalaycıoğlu, personal communication, August 19, 2020), whereas Mehmet Savaş (2020) stated that he generally worked with qualified masters to achieve a poetic façade language. In his interview, Hasan Tuluk (2020), a metal artist and teacher, revealed that architects were able to reflect their own feelings and thoughts on the building through the work of craftsmen, and he believed that architects benefited from the technical knowledge of the craftsmen (H. Tuluk, personal communication, October 22, 2020). Ahmet Yeşilmaden (2020), an instructor on metalwork, described in his interview how craftsmen would show their prototype works on balcony balustrades to contractors to display their portfolio (A. Yeşilmaden, personal communication, August 20, 2020) **(16)**. In his interview, craftsman Mustafa Tan (2021) declared that they would even offer to take the contractor to the site of their previous work (M. Tan, personal communication, March 14, 2021). Hence, new patterns developed by directly observing and referencing existing craftwork. Another interviewee, Sedat Kızılkaya (2021), a craftsman from that period, stated that design catalogs first appeared around 1960s in Turkey. However, prior to that, craftsmen like himself relied on the ideas from others to some extent or entirely, with minimal input from the architect or contractor. The visual language created through the balustrades developed through reproduction while the façades dispersed throughout the city encouraged the emergence of new façade designs. However, rather than relying on the architects as the sole authors of the entire building, craftsmen independently contributed to the design by experimenting with new work inspired by the balustrades that have already been produced. In his interview, craftsman Cem Turhan Eskitoros (2021) pointed out that craftsmen collaborated with contractors rather than architects (C.T. Eskitoros, personal communication, January 23, 2021). The statements from different actors, including architects and craftsmen, demonstrate the diverse approaches to collaboration and underscore the role of craftwork in architectural practice.
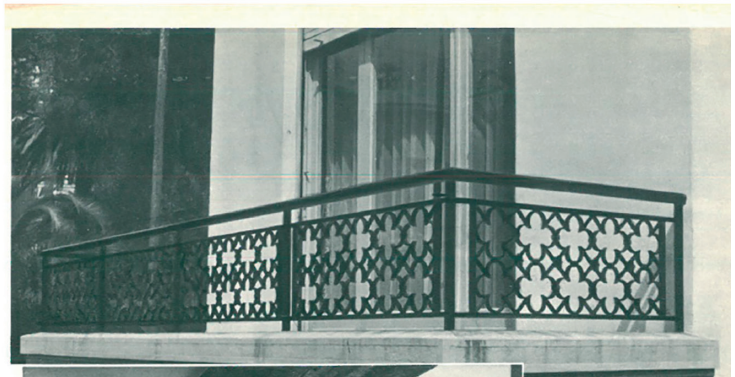
Figure 8. Pages from contemporary French or German catalogs shared by the interviewed craftsmen (Tuna Ultav archive)

17. Cem Turhan Eskitoros, Sedat Kızılkaya, İsmail Sağlam, and Ekrem Çalışkan are other craftsmen that reported gaining inspiration from international catalogs, especially catalogs from Germany and France. Architect Nesrin Yatman and contractor İrfan Köksalan also stated that they made use of international catalogs (N. Yatman, personal communication, March 4, 2021; İ. Köksalan, personal communication, January 2, 2021).

One of the highlighted points of the relationship among various actors is the source of inspiration for the balustrades. All interviewees identified a particular inspiration or departure point, implying the absence of the architect in the design process. In this respect, the craftsmen interviewed stated that architects had an insignificant role on the design and production of balustrades. Instead, customers' taste shaped their visual vocabulary. In his interview, Yıldırım (2021) noted that these designs could also spread by word of mouth: a customer would notice an attractive balustrade and show it to the craftsman, who would then create a similar model. According to craftsman İsmail Sağlam (2021), catalogs were useful resources for learning about the processing and shaping of iron, and the use of tools such as anvils, bellows, and hammers to create an annealed material (İ. Sağlam, personal communication, April 5, 2021). He, like many other craftsmen, benefited from those instructions, which guided craftsmen in the use of the sample and pattern, and the work that was suitable for the particular façade (**Figure 8**) **(17)**. Although not all of the architects or craftsmen of the selected buildings could be reached, this shared information is noteworthy for questioning the architects' approach to balustrade design.

DIGITAL DOCUMENTATION AND PRESERVATION OF ANKARA APARTMENT BALCONY BALUSTRADES

It may be regarded as paradoxical to consider modern architecture and objects as heritage since modernism rejected tradition in favor of the ephemeral and transitory, presupposing a tabula rasa (Maxwell, 1998; Heynen, 1998). Hence, the idea of preserving balcony balustrades may be controversial. The buildings of 1950-75, are often seen as less worthy of preservation than pre-Republican buildings in terms of academic interest. Additional issues are recognition and ownership of the heritage, conflicting views, lack of methodology, the buildings' age and condition, technical problems, and obsolescence (Balamir, 2014). Nevertheless, it is important not to overlook the preservation of different layers of history and recognize that this layering creates other meanings that reflect wider material culture. The declaration of ICOMOS International Committee on Twentieth Century Heritage (2017) argues that it is essential to preserve modern heritage: "The obligation to conserve the heritage of the twentieth century is as important as our duty to conserve the significant heritage of previous eras" (Madrid-New Delhi Document, 2017, 3). According to this declaration, "contents, fixtures and fittings that contribute to cultural significance should always be retained on the heritage site where possible … Their removal is unacceptable unless it is the sole means of ensuring their security and preservation. They should be returned where and when circumstances permit" (Madrid-New Delhi Document, 2017, 9). The declaration considers that cultural significance is embodied "in the heritage site itself, its setting, fabric, use, associations, meanings, records, related sites and related objects" (Madrid-New Delhi Document, 2017, 11). This wide range of elements can reasonably include balcony balustrades. It continues: "While it specifically applies to architectural heritage in all its forms, many of its concepts may equally apply to other types of twentieth-century heritage" (Madrid Document, 2011).

In addition to the reasons for preservation of the balustrades, it is also important to discuss the documentation and preservation methods where physical preservation becomes infeasible due to demolition. Hubert-Jan Henket defines preservation as the attempt to maintain "the memory of an artefact for future generations," (Henket, 1998, 15) adding that not all buildings have to be physically conserved. Today, this can simply take the form of digital documentation. In this framework, this study of balcony balustrades as part of material culture raises the issue of the necessity of their digital documentation and preservation. In addition, due to their communicative role, these apartment balcony balustrades expanded the formal repertory of Ankara's architecture between 1950 and 1975, taking on a role as a representative element in the residents' collective memory of their physical, socio-economic, and socio-political environment. With regard to the values raised within this study, their digital documentation before the processes of demolition is suggested. Their preservation is crucial in this particular case, since their total disappearance would remove a rich collection of memories and cultural references.

The declaration by ICOMOS (2017) sees archiving as an important part of conservation planning. Depending on the circumstances, recording techniques may include "photography, technical drawings, oral histories, laser scanning, 3D modeling and sampling" (Madrid-New Delhi Document, 2017, 6). To achieve the main purpose of the study, to preserve a rich and accessible archived record of architectural building

18. Grouper is a long-term project (Savasta and Kocabıyık, 2021), one of whose authors has initiated and developed several collections in recent years. The website archive section, as the outcome of Grouper, contains four main areas: a data table recording the project identity number, neighborhood, street name, apartment block number (and name if any), coordinates, and formal category; an index card summarizing the data table's textual information together with photographs of the balustrade and whole building; a catalog showing all the building photographs on the same page; and a map locating all 1,850 apartment buildings. The data table also provides more information regarding the architect, contractor, and construction date of the selected 90 balustrades. There are also sections that include the research project scope, the exhibition, and the interviews.
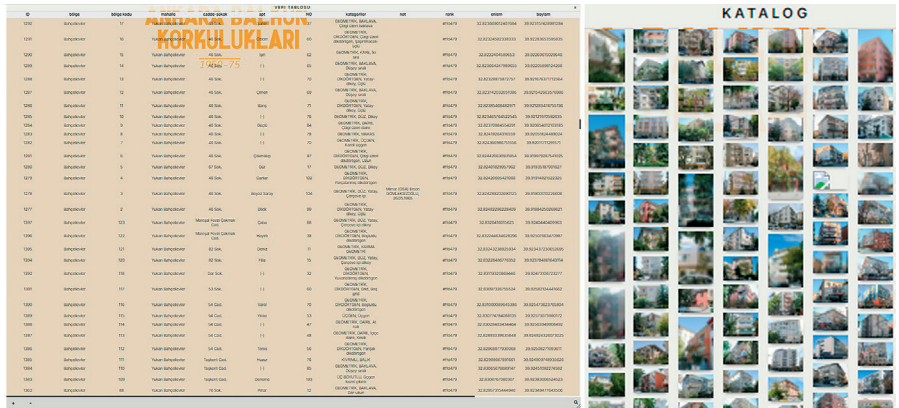

Figure 9. A collage of pages from the project website (data table, catalog, index card, illustrations) (Savasta archive)

components, a collection of images of balconies was compiled using Grouper web-based platform. Grouper is a digital interface for studying collections and part of an open-source project providing tools to identify the database and thus make the findings possible (**Figure 9**) **(18)**. This interface gave the opportunity to compare the categorized collection of balustrades, revealing how the patterns were dispersed across distant locations in the district. Furthermore, it led to implications related with the story of their construction and various relationships among the actors (**Figure 7** and **Figures 10-12**). The repetition of the balustrades' visual grammar in different locations within the city creates a pattern. Grouper

Figure 10. Similar balustrades from the research project illustrating abstraction of nature: top row based on waves; bottom row based on honeycomb (Tuna Ultav archive)
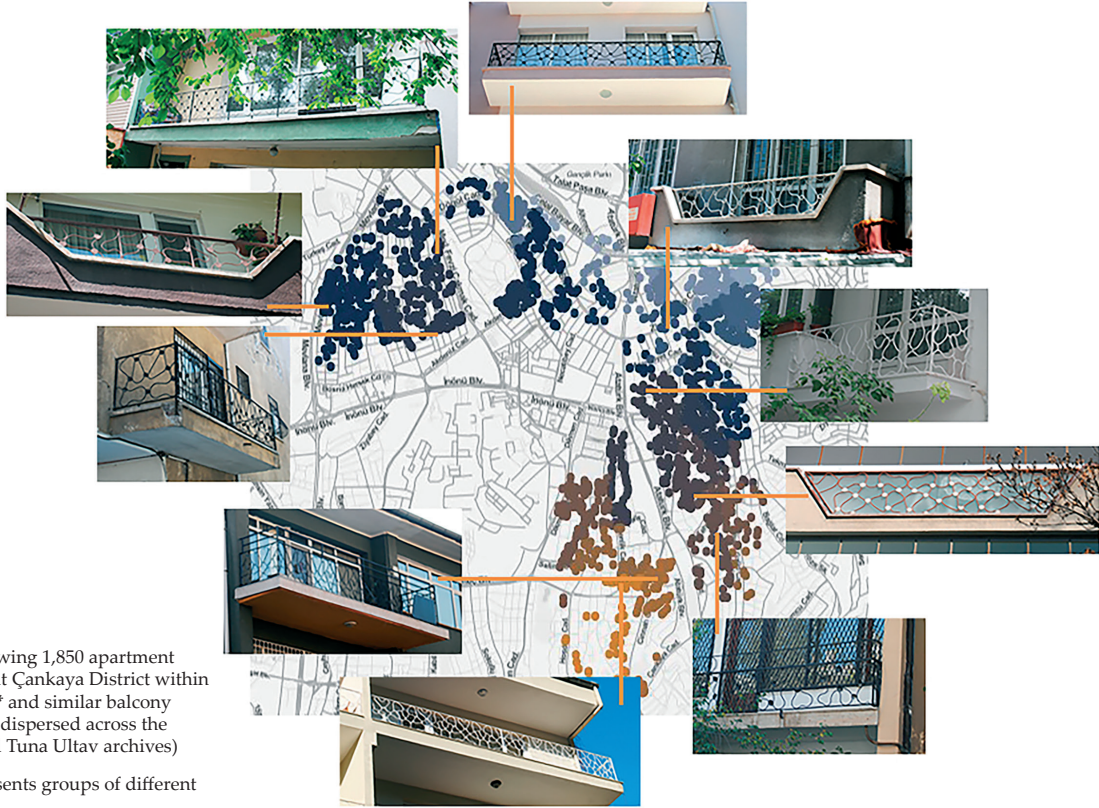
Figure 11. Map showing 1,850 apartment buildings scanned at Çankaya District within the research project* and similar balcony balustrade samples dispersed across the district (Savasta and Tuna Ultav archives)

* Color coding represents groups of different neighborhoods.

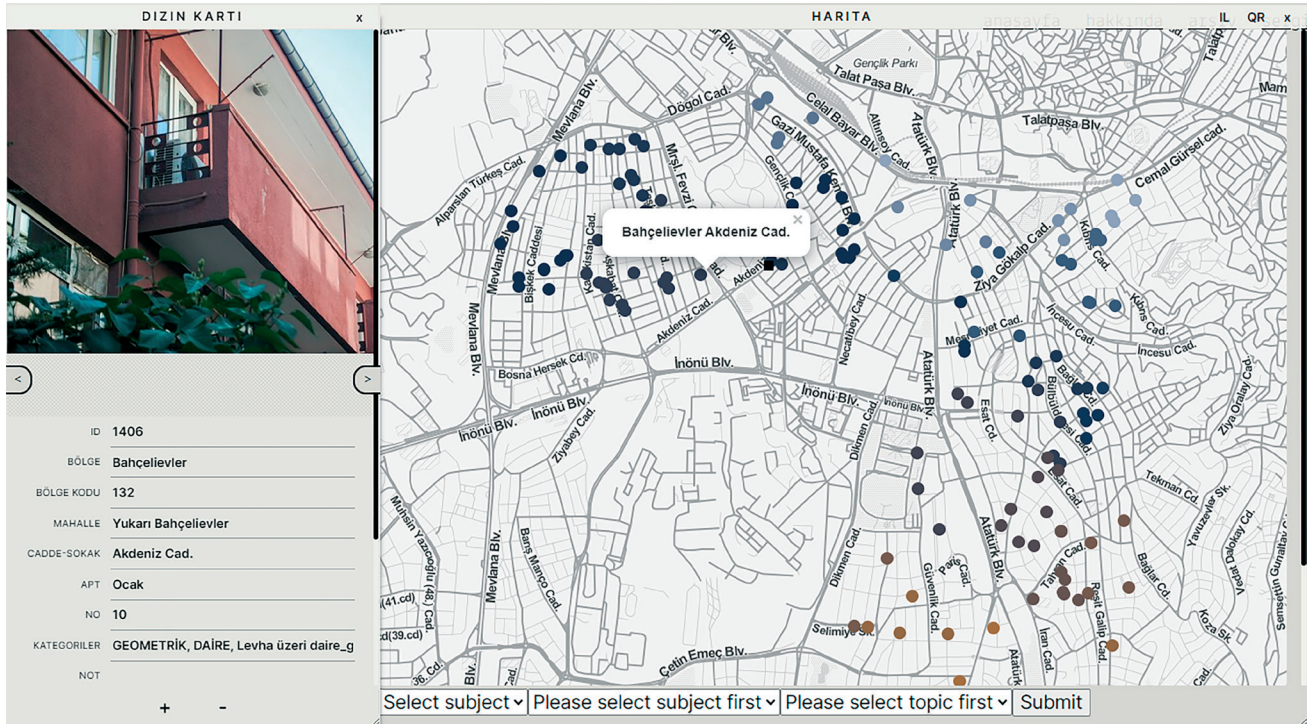**Figure 12.** An example selection of a pattern category on the map (Savasta and Tuna Ultav archives)

software visualizes the entire database, thereby allowing the user to discover information about the balustrades, such as their aesthetic features, distribution in the neighborhood/city, and material qualities. Balustrades with similar patterns and the same or different interpretations are dispersed across the city **(19)**.

According to UNESCO, digital heritage recognizes employment of technology in history-making: "Individuals, organizations and communities are using digital technologies to document and express what they value and what they want to pass on to future generations. New forms of expression and communication have emerged that did not exist previously" (UNESCO, 2015 as cited in Purkis, 2017, 436). As a result, in the digital medium, the meaning of an object rests neither with the artefact's material reality nor with the perceiving individual but is located in-between. This virtuality of the "meaningful object" conditions the capacity of material culture to mediate (Chestnova, 2017, 9).

CONCLUDING REMARKS

This study shows how reading balcony balustrades as material culture can develop a more extensive understanding of the period's building culture shaped by multiple dynamics. Documentation and analysis of balustrades as craftwork exposes the authentic and technological aspects of the era and relationships among various actors of the construction process. This was achieved through the documentation and analysis of a relatively minor element of apartment building typology, namely, wrought iron balustrades as craftwork. Although small in scale in relationship to the building to which they belong, these elements can be considered noteworthy components of twentieth century architectural heritage, and their study can contribute to a multi-layered understanding of a specific period. The preservation of meanings inherent in material culture is sustained through the preservation of its material artefacts, and the documentation of their multifaceted relationships with the societies that surround them. This allows us to make a complex interpretation of the material culture with its many actors, as a process shaped by many dynamics. In instances when preservation of the real object or material is not possible, digital documentation evolves as a useful instrument in recording wrought iron balustrades as a part of architectural heritage. Accordingly, digital documentation as a tool enables an alternative reading of the city and enrich our understanding of the built environment beyond the mainstream architectural histories. Simultaneously, it helps to preserve their memory.

If a building or any of its architectural elements, such as doors and windows, continue to maintain the architectural understanding of the original period by demonstrating the contemporary understanding of decoration and revealing the way the building materials were used, then, through all these qualities, it can be defined as an original element. The greater its authenticity, the easier it is to understand that structure and the period it represents, and obtain the necessary information through their transmittance of meaning. Balustrades make a unique contribution to the otherwise undecorated apartment façades of the era, dressing them with individuality. Therefore, balustrades both gives an identity and surprise passersby through their authentic language that enhances the plasticity of the apartment buildings' façades.

Wrought iron balcony balustrades communicate the aesthetic and technological level of the era's architectural and craft practices. In as much as buildings themselves can speak, certain details through their formal and material properties can speak about specific architectural details of the period, whether to passersby or researchers. By doing so, they illustrate the aesthetical and technical approaches, revealing an architectural culture of their era that is more extensive than it may otherwise seem.

19. Figure 11 exemplifies how the "Wavy" category spread across a large geography. **Figure 12** shows what appears on the website when the user selects a particular category ("Geometric") and sub-category ("Circle") from the tabs below the map.

This study has the potential to encourage further discussions on material culture and how it reflects society. That is, the need for a decorative element or ornamentation revealed here can be seen as resistance to the emerging apartment production with rational façades. Further research could help to understand the dynamics behind this effort at diversification to understand the origins of this differentiation in terms of the nature of the actors and possible regional differences within or between cities. It could also show how investigating buildings' balustrades can reveal alternative narratives about everyday practices, thereby uncovering a multi-layered aspects of the culture.

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ANKARA APARTMAN BALKON KORKULUKLARININ (1950-75) MADDİ KÜLTÜR OLARAK OKUNMASI VE DİJİTAL BELGELEMESİ

Bu makale, demir balkon korkuluklarının maddi kültür olarak yeterince keşfedilmemiş potansiyelini ele almakta ve belirli bir zamanın tasarım kültürü ve daha geniş çerçevede toplum hakkında önemli ipuçları vermektedir. Bu çalışma, 1950-1975 yılları arasında Ankara'da inşa edilmiş apartmanların demir balkon korkuluklarını inceleyerek, Türkiye'deki modern mimarlık kültürünün kapsamının genişletilmesine potansiyel olarak katkıda bulunurken, bu öğelerin bu kültürün maddi kanıtı olarak belgelenmesinin ve korunmasının önemini vurgulamaktadır. Balkon korkuluklarına ilişkin veriler, Ankara'nın Çankaya ilçesindeki 1850 apartmana odaklanan bilimsel bir araştırma projesiyle elde edilmiştir. Çalışma özellikle, korkulukların özgünlük yönünü, teknolojik yönünü ve inşaat sürecinin çeşitli aktörleri arasındaki ilişkilere ışık tutmadaki rolünü analiz etmektedir. Konuyu daha geniş bir bağlama oturtmak için araştırma, maddi kültür ve modern mimarlık mirasının korunması üzerine literatür taraması yapmakta ve yarı yapılandırılmış görüşmelerden ve saha çalışması sırasında çekilmiş olan geniş bir fotoğraf koleksiyonundan elde edilmiş verilerin analizini sunmaktadır. Çalışma, dönemin maddi kültürüne daha fazla ışık tutmak ve belleklerdeki yerlerini korumak üzere, sonuç olarak, demir balkon korkuluklarının çok katmanlı okunması aracılığıyla dijital belgeleme yöntemleri önerisini getirmektedir.

READING ANKARA APARTMENT BALCONY BALUSTRADES (1950-75) AS MATERIAL CULTURE AND THEIR DIGITAL DOCUMENTATION

This paper considers the underexplored potential of wrought iron balcony balustrades as material culture, providing significant clues about a design community of a certain time and society at large. Exploring the wrought iron balcony balustrades of apartment buildings constructed in Ankara between 1950 and 1975, the study potentially contributes to widening the scope of the field of modern architectural culture in Turkey, while underscoring the significance of documenting and preserving these items as material evidence of this culture. Data on balcony balustrades were obtained through a scientific research project focused on 1,850 apartment buildings in Ankara's Çankaya District. In particular, the study analyzes the balustrades' authenticity and technological aspect, and their role in shedding light on the relationships among various actors of the construction process. To provide a broader perspective, the study situates the issue within the wider context by conducting a literature review on material culture and the preservation of modern architectural heritage. Furthermore, the research incorporates an analysis of data from semi-structured interviews and an extensive collection of fieldwork photographs. The study concludes with a proposal for digital documentation methods to allow further light to be shed on the period and to preserve their memory, through a multi-layered reading of wrought iron balcony balustrades.

ZEYNEP TUNA ULTAV; B.Arch, M.Arch, PhD.
Received her B.Arch and M.Arch degrees from Middle East Technical University (1999, 2022); and her PhD. degree in architecture from Gazi University (2008). Major research interests include modern architecture/interiors in Turkey, architecture and fiction, and tourism architecture. zeynep.tunaultav@yasar.edu.tr

DANIELE SAVASTA; B.Des, M.Des, PhD.
Received his B.Des in Industrial Design from the University of Palermo and his M.Des from Iuav University of Venice. He earned his PhD in design sciences from Iuav University of Venice in 2015. He is currently an assistant professor in interaction and information design, with a particular interest in data visualization, cultural heritage, games, and interactive installations. daniele.savasta@gmail.com

MELTEM Ö. GÜREL; B.S., M.Arch and Ph.D
Received her B.S., M.Arch and Ph.D. in Architecture from the University of Illinois at Urbana-Champaign. Currently works as a Professor at Yaşar University. Major research interests include cross-cultural histories of modern architecture, gender-space, culture-space, and displaced people. She is the editor of Mid-Century Modernism in Turkey. meltem.gurel@yasar.edu.tr