

Reviving urban identity through hidden details: The Türbeönü manhole cover design workshop

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Received: 18.12.2025
Accepted: 20.05.2025

Citation:
Duman Köylü, S. (2025). Reviving urban identity through hidden details: The Türbeönü manhole cover design workshop. *IDA: International Design and Art Journal*, 7(1), 164-176.

Abstract

Public spaces include various design elements that shape a city's identity, such as buildings, urban furniture, and information panels. However, some components of the urban fabric, like manhole covers, are often overlooked. Though typically infrastructural, manhole covers can serve as culturally and aesthetically meaningful design elements that enrich urban identity. To explore this potential, the study employs qualitative research methods, specifically case study and content analysis approaches. It first reviews artistic works, creative applications, and research on manhole cover designs worldwide. It then presents outcomes of an interdisciplinary workshop integrating design students' skills with their urban environment. The workshop engaged students from Industrial Design, Cartoon and Animation, and Painting departments within the Faculty of Fine Arts. Participants designed manhole covers for Türbeönü, Konya- a historic area undergoing urban transformation. The workshop unfolded in three stages: project introduction, field research, and jury evaluation with an exhibition of student designs. The resulting designs were categorized based on common themes and analyzed through content analysis. Discussions and presentations occurred at The City Workshop, organized by Konya Metropolitan Municipality. The study evaluates the workshop's process, highlighting its role in raising awareness of urban aesthetics and demonstrating how small-scale design interventions can shape city identity.

Keywords: Urban aesthetics, Manhole cover design, Urban identity, Design education, Türbeönü

Extended Abstract

Introduction: Public spaces comprise of various design elements that shape a city's identity and aesthetics, including buildings, street furniture, and informational panels. However, some urban components, like manhole covers, are often overlooked despite their significant potential to contribute to the city's visual and cultural identity. Manhole covers, traditionally seen as functional infrastructure elements, should be reimagined as design objects reflecting local history, aesthetics, and cultural values. This study examines the role of manhole cover designs in urban aesthetics and presents a workshop conducted in Konya's Türbeönü district. Located as the part of Konya's historic city center, Türbeönü is a culturally significant district named after the nearby tomb of the renowned Sufi philosopher Mevlâna Celaleddin-i Rumi. As part of a major urban renewal project, the area has undergone extensive restoration to preserve its Seljuk era architectural character, while continuing to serve as a public bazaar that gathers both local and international visitors. The project was aimed to encourage students to explore the cultural and historical values of the city which they study, and to reflect these local characteristics in their designs. In doing so, the workshop fostered a meaningful connection between students' professional skills and the unique cultural fabric of their urban environment.

Purpose and scope: This study aims to demonstrate that urban elements often perceived as ordinary, such as manhole covers, can function as visual symbols representing a city's identity and cultural heritage. The study explores global examples of creative and artistic manhole cover designs, demonstrating their potential as urban branding tools. It then focuses on an interdisciplinary design workshop held at the Faculty of Fine Arts. A total of 17 students- 9 from Industrial Design, 6 from Cartoon and Animation, and 2 from Painting departments- participated in a project to design manhole covers for the Türbeönü district. The workshop was structured to encourage students to apply their design knowledge in a real-world urban setting, reflecting Konya's cultural heritage through their work. Additionally, the course instructor contributed to the post-workshop exhibition with supplementary designs, further enhancing the showcase.

Method: The study adopts a qualitative research approach, combining case study analysis, field research, and design evaluation. The methodology was structured around three interconnected phases. In the first phase, students participated in a preliminary seminar that introduced key concepts in urban design, alongside international examples of creative manhole cover applications. The seminar emphasized the cultural and aesthetic significance of these urban elements in various global contexts—most notably in Japan, where manhole covers have become recognized as a form of public art and cultural expression. In the second phase, students engaged in fieldwork in the Türbeönü district, conducting site-specific analysis of its historical texture, architectural features, and spatial dynamics. They documented existing manhole covers, studied the surrounding urban fabric, and explored local visual motifs. This immersive process informed the development of design concepts rooted in the district's cultural identity and visual character. The final phase involved a formal presentation of the students' designs to a jury composed of academics and representatives from the Konya Metropolitan Municipality. The proposals were evaluated in terms of cultural relevance, aesthetic value, and production feasibility. Selected works were later exhibited at the Konya City Workshop, providing a platform for public engagement and dialogue on urban aesthetics. After the exhibition, the works were thematically analyzed to create a systematic framework. The designs were categorized into thematic groups reflecting their primary characteristics, such as colorful patterns, Mevlana-themed motifs, functional elements, and traditional figures and motifs.

Findings and conclusion: The workshop results demonstrated that manhole covers proved to be effective tools for urban storytelling, reinforcing a city's cultural and historical narrative. The student designs reflected diverse inspirations and were systematically categorized into four primary groups: colorful patterns, Mevlana-themed motifs, functional elements, and traditional figures and motifs. Some designs integrated Konya's Seljuk and Ottoman architectural patterns, tile motifs, and regional floral designs, creating visually cohesive and historically grounded concepts. Others incorporated calligraphy and quotes from Mevlâna Celaleddin Rumi, acknowledging Konya's spiritual heritage and attracting locals and tourists. A few projects proposed QR-code-integrated designs, allowing passersby to access historical information about the region via mobile devices. Additionally, some students explored glow-in-the-dark or color-coded covers to enhance urban navigation. The study highlights the overlooked potential of small-scale urban design interventions, such as manhole cover designs, in enhancing the aesthetic and cultural fabric of a city. Through the workshop, students gained direct experience in engaging with their urban surroundings, enhancing their interdisciplinary thinking, and contributing to the formation of urban identity. The results suggest that integrating artistic manhole cover designs into urban planning can foster a stronger sense of place and encourage public engagement with local heritage. Municipalities could further explore the implementation of such projects by organizing design competitions and incorporating culturally relevant designs into infrastructure planning. Moreover, utilizing manhole covers as a platform for storytelling and community engagement presents a replicable model for other cities seeking to reinforce their visual identity.

Keywords: Urban aesthetics, Manhole cover design, Urban identity, Design education, Türbeönü

INTRODUCTION

Urban design encompasses a wide range of elements that collectively shape the visual character of a city. Architecture, public spaces, street furniture, and street art are fundamental components defining a city's identity and aesthetic value. Various factors, such as history, geography, cultural heritage, and technology, play a significant role in shaping the overall city image and the elements that constitute them. The components embedded within the built environment reflect and simultaneously influence the cultural dynamics of the communities that have inhabited the area over time. As spaces where people gather, interact, and strengthen social bonds, public spaces help shape the social structure and aesthetic perception of cities (Carr et al., 1992: 4-6).

Architecture is one of the most prominent elements that reflects the character of a city. For instance, the interaction between modern architectural movements and traditional structures significantly affects a city's visual identity (Frampton, 2007: 15). This interplay extends beyond architecture to include urban planning and landscape strategies, thereby enriching and diversifying urban life. Beyond architecture and urban structures, street art contributes to the dynamic and vibrant appearance of cities by offering social messages and individual expressions in public spaces (Kester, 2004: 20). Street art provides aesthetic value and reflects community identity and cultural diversity, encouraging social interaction. Each element is influenced by its historical and geographical context. For example, a city's historical background shapes its architectural styles and the organization of its public spaces, while geographical features play a critical role in spatial development. Additionally, cultural heritage forms the foundation of urban design by incorporating elements that reflect the identity and values of the local population (Ashworth & Tunbridge, 2000: 22).

On the other hand, technological advancements introduce innovative solutions to urban design and functionality, influencing the integration of form and function. This dynamic interaction enables cities to evolve as physical environments and as social and cultural spaces with distinct visual languages. Table 1 summarizes the key components that influence urban aesthetics, along with the main factors that affect each.

Manhole covers, as an often-overlooked element of urban design, are structural components that contribute to the visual identity of cities, yet are frequently neglected. As an integral part of the city’s infrastructure, these utilitarian objects have the potential to contribute to the aesthetic and cultural fabric of the urban environment. These often-overlooked objects can serve as artistic canvases that reflect a city’s history, culture, and values. While manhole covers primarily serve as access points for underground utilities, they can also be specially designed to enhance a city’s visual coherence and uniqueness (Guo, 2024b: 1-4).

Table 1. Urban aesthetic elements and influencing factors

<p>Elements Influencing Urban Aesthetics</p> <ul style="list-style-type: none"> ▪ <i>Architectural Design:</i> Building styles, architectural details, construction materials, historical and modern structures ▪ <i>Streets and Roads:</i> Street and road layouts, pedestrian and bicycle lanes, traffic signage, urban furniture ▪ <i>Public Transportation and Infrastructure:</i> Bus, tram, and metro lines and stations; the city’s transportation network ▪ <i>Public and Green Spaces:</i> Parks, gardens, squares, and other public or green areas ▪ <i>Street Art and Sculptures:</i> Graffiti, street sculptures, and other forms of urban art ▪ <i>Lighting and Illumination:</i> Street lamps, building lighting, and decorative lighting that shape the nighttime atmosphere ▪ <i>Local Culture and Visual Identity:</i> Local symbols including city emblems, flags, and logos
<p>Factors Influencing Urban Elements</p> <ul style="list-style-type: none"> ▪ <i>History and Cultural Heritage:</i> A city’s history, cultural heritage, and past development shape its visual language. ▪ <i>Geography and Climate:</i> For instance, in coastal cities, maritime motifs and colors are often prominent. ▪ <i>Topography and Natural Elements:</i> The city’s location, natural landscapes also influence its visual language. ▪ <i>Population and Migration:</i> The demographic structure, cultural diversity, migration trends of a city impact its identity. ▪ <i>Economic Status and Urban Planning:</i> The economic condition of the city, urban planning policies, and infrastructure investments also shape its visual language. ▪ <i>Social and Political Factors:</i> The political situation or social movements within the city can find visual expression through street art and protests. ▪ <i>Technological Progress and Modernization:</i> Technological advancements, material use, transportation systems, and lighting are elements that influence a city’s visual language.

This study examines the contributions of manhole covers to urban form and aesthetics by evaluating research studies and creative application examples worldwide in this field. Subsequently, the content, process, and outcomes of the manhole cover design workshop organized for the Türbeönü district in Konya will be discussed and evaluated. The main purpose of the workshop was to raise design students’ social awareness by encouraging them to combine their professional skills with the local culture and historical heritage of their city.

Manhole Covers as a Design Element and Studies in This Field

There are different examples of manhole cover designs worldwide. Additionally, there are competitions, scientific and artistic research projects specifically dedicated to this topic. Some artists and collectors document and archive different manhole cover designs by traveling to different cities and photographing them. Most of manhole design examples are found in Asian countries, particularly Japan and China. While these covers may appear to be simple elements of urban infrastructure, their modest and often overlooked structures can also become a field of special interest and appreciation. This section will provide information about research and designs related to manhole covers, examine creative applications from various sources, and evaluate the contributions of these designs to urban aesthetics.

Manhole cover designs first emerged and became widespread in Japan. According to a travel guide by Live Japan (2020), these infrastructure elements, which initially featured geometric patterns, became a cultural phenomenon and a point of interest across the country following the introduction of fish illustrations on manhole covers in Okinawa in 1978. Today, there are more than 12,000 different manhole cover designs nationwide. These designs are specifically created for each region to reflect the local identity and cultural heritage of different areas in Japan, based on the requests of local municipalities.

Figure 1 presents examples of manhole cover designs from different regions of Japan, reflecting their respective areas' culture and local identity. The design in the first image is an example of a manhole cover from the town of Kinugawa Onsen in Nikko City. This town is known for its hot springs and the Kinugawa River. The manhole cover design features the river, the Kinu Tatewa Suspension Bridge, which is a tourist attraction, autumn leaves, and a depiction of a person from the Fujiwara clan, one of the region's important families with royal ancestry. The second image showcases a manhole cover design from Atami City, famous for its plum orchards where the earliest plum blossoms in Japan bloom. The design depicts a woman strolling through the garden during the spring in the Atami region. The final design in the image represents Osaka Castle, a significant historical landmark, along with cherry blossoms emblematic of the city and waves that symbolize Aquapolis (the water city).



Figure 1. Manhole cover designs from different regions of Japan

As seen in the examples, these designs transform manhole covers from mere infrastructure elements into symbols and signatures of the city. For those walking through the streets of the city, these circular designs encountered by chance on the road have been turned into works of art that represent the city's identity, much like logos or stamps. These modest designs attract significant interest and admiration from city residents and tourists.

Interest in manhole covers has grown through activities such as the publication of collector's cards, "Manhole Summit" events, and the production of souvenirs featuring these designs. These covers have gained international recognition as an example of how urban infrastructure meets aesthetics. Researcher Thomas Couderc, who has a special admiration for manhole cover designs, published a collection book titled *Manhoru* (Couderc & Helmo, 2021) after capturing photographs during his trips to Japan and editing them graphically (Figure 2). Another important publication in this context is Camerota's *Drainspotting* (2010). This work explores how manhole covers serve as a form of art that captures and displays the lifestyles of their localities through diverse depictions and symbols, sharing these narratives with interested audiences.



Figure 2. Pages from the *Manhoru* collection book

The manhole covers design movement, began in Japan and has gradually spread to many European cities. A Berlin-based design collective known as Raubdruckerin (translated as “pirate printers”) has pioneered a unique approach by using manhole covers, street grates, and urban textures as printing surfaces. They began this practice in 2005 in Berlin and have since expanded their street-printing performances to various European cities. By transferring patterns from manhole covers and sidewalk tiles onto textiles such as t-shirts and tote bags, they transform overlooked urban elements into wearable, artistic expressions of city identity (Figure 3). These handmade prints serve as unconventional souvenirs and raise awareness of everyday infrastructure’s hidden aesthetics. Their work blurs the line between art, design, and activism and brings attention to the creative potential found in the most unexpected places within the urban landscape. These hand-printed products are sold on their website, making them available for enthusiasts while ensuring the continuity of artistic production.



Figure 3. The Pirate Printers based in Berlin

There are also thesis works published about manhole cover designs. Shawna J. Mansfield’s (2019) master’s thesis titled “Manhole Covers, Cultural Artifacts, and Sense of Place” explores the potential of manhole covers to reflect the cultural heritage and identity of communities. The research emphasizes that environmental graphic designers and urban planners can collaborate with community members to transform infrastructure elements like manhole covers into cultural artifacts that visually express community values. Mansfield argues that designing such works is crucial for preserving social values and strengthening the sense of belonging within a community. The thesis examines various examples of manhole cover designs from cities worldwide.

Yini Guo (2024b) analyzes the various application areas, patterns, and color harmonies of different manhole cover designs in her research article and proposes some new design concepts that reflects cultural and aesthetic values for eco-communities in China. However, there is no indication whether these designs have been implemented in practice. On the other hand, the manhole cover beautification project of the Dali Erhai Ecological Corridor stands out as a noteworthy example of a public landscape design implemented by the municipality (Rulin & Liping, 2023). Within the scope of this project, a total of 200 sets of four-part manhole covers and 845 individual manhole covers for electricity and sewage systems were designed and installed along both sides of the pedestrian corridor, covering a landscape area of 400,000 square meters. The designs (Figure 4) incorporate cultural motifs and traditional elements selected to align with the environmental characteristics of the region, thus creating a public art space in harmony with the natural surroundings.



Figure 4. Flora and fauna motifs on Erhai manhole cover

Unlike the previously mentioned examples, some studies focus on manhole covers from a functional perspective, aiming to improve sustainability and urban infrastructure. The design presented in Figure 5, developed as a smart manhole cover, integrates a grass basin to utilize rainwater through vegetation for environmental compatibility and water conservation. Additionally, it features solar panels that provide nighttime illumination. The cover has advanced sensors that monitor various environmental conditions, such as groundwater levels and gas concentrations, and transmit real-time data for maintenance and safety purposes. Furthermore, the design incorporates enhanced security mechanisms, including anti-theft features, smart positioning systems, and emergency response functions (Guo, 2024a).

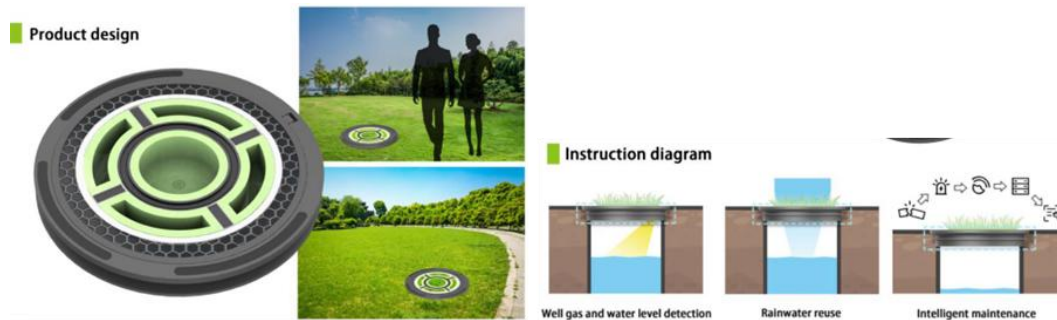


Figure 5. Smart manhole cover with sensors and features

Another study on manhole covers examines those found on eight streets in Seoul, known as the Streets of History and Culture, in a comparative context with designs from Minneapolis. In this research, manhole covers were photographed in situ, and their connections to each street's local history, landmarks, and cultural elements were comprehensively analyzed. The article emphasizes the importance of collaboration among government agencies, professional designers, and design communities to promote meaningful manhole cover designs. It also advocates for including of manhole cover design in industrial design and art education, recommending field observations as part of educational initiatives aimed at analyzing design in context (Lee & Yoon, 2019: 182). Such initiatives enable students and designers to understand local culture better and integrate that understanding into their creative processes. Organizing competitions and exhibitions may also enhance public awareness, engagement, and belonging to their local environments.

In this context, a design workshop was organized to encourage students to explore the cultural and aesthetic values of the city they live in; to apply the design skills they have acquired during their education, and to develop those skills further. The manhole covers design project, chosen for its practicality and manageable scope within a limited timeframe, provided an advantageous opportunity for students to establish a connection with their urban environment through design-based projects.

METHOD

Konya, Türbeönü Manhole Cover Design Workshop

As part of the *Design and the City* course, which is offered as a departmental elective within the Industrial Design curriculum, a design workshop was conducted focusing on manhole covers located in the Türbeönü Bazaar area of Konya. *The Design and the City* course aims to help students understand how product design relates to urban lifestyles, culture, and history, and to explore how cultural values are reflected in the design process. Through presentations and projects conducted during the course, students are given the opportunity to develop competencies in designing products that are sensitive to the needs and values of the society in which they live. In this context, addressing manhole cover design within the scope of a workshop is considered a significant opportunity for students to integrate the historical and cultural values of the city where they study with their professional design skills.

This study is conducted based on qualitative research methods, specifically employing the case study and content analysis approaches. The designs produced during the workshop were evaluated through qualitative content analysis by categorizing them according to the common themes that emerged from the work. In this

process, data obtained from field research, visual documentation, literature review, and student workshops were synthesized and interpreted. The study aims to understand how manhole cover designs are shaped within cultural and aesthetic contexts and to analyze how students integrate these aspects into their design processes. In this context, the design processes carried out during the workshop and the resulting outputs were examined and evaluated through key themes such as urban aesthetics, cultural identity, and user perception.

Workshop Content

The workshop was organized within the framework of the The City Workshop (Şehir Atölyesi), which operates under the Konya Metropolitan Municipality. Students from the Industrial Design, Cartoon and Animation, and Painting Departments at the Faculty of Fine Arts participated in the project. A total of 17 students took part in the workshop: 9 from Industrial Design, 6 from Cartoon and Animation, and 2 from Painting. Discussions and presentations involving students from different disciplines were held at the City Workshop. The workshop was structured in four main phases; introduction of the project content, field research, design evaluation and exhibition of the final concepts in front of a jury (Figure 6).

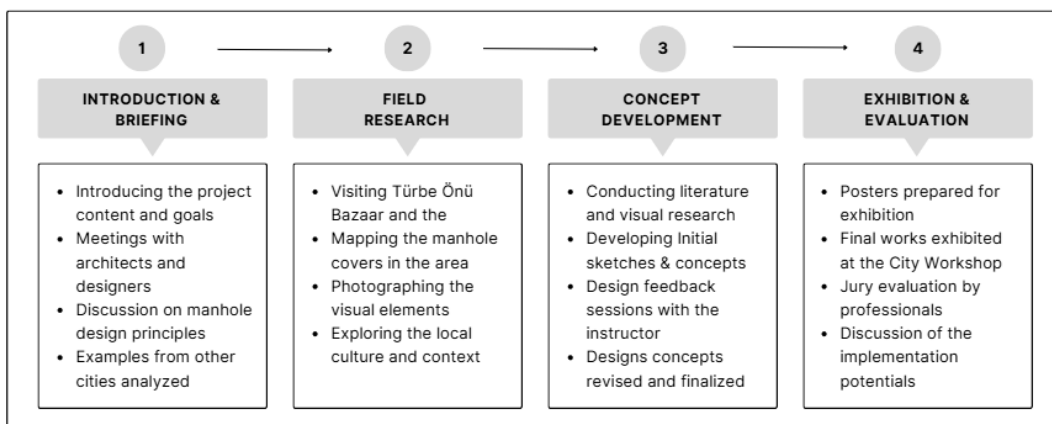


Figure 6. Stages of the design workshop

In the first phase, meetings were held with students, architects, and interior architects working at the City Workshop. During these meetings, information was shared regarding architectural structures that influence the visual language of the city and the significance of historical, cultural, and geographical factors that impact design. Subsequently, examples of manhole cover designs implemented in different cities were examined, focusing on their compatibility with the values of their respective cities and their role in promoting urban identity and tourism. Following this analysis, announcements about the workshop topic and process were made. The session concluded with a discussion on important considerations in manhole cover design, including production techniques and material selection. In the second phase of the workshop, a field research method was employed to investigate and analyze the Türbeönü area in Konya. This research was conducted in two parts. In the first part, the types and number of manholes cover in the area were identified and mapped. The second part involved a more in-depth exploration of the Türbeönü area to understand local culture and visual elements. Students who participated in the workshop visited the Türbeönü area and worked in groups to examine the manhole covers, their types, and their spatial distribution. During this stage of the research, students recorded the different types and quantities of manhole covers present in the area and created maps of the field (Figures 7 and 8).



Figure 7. Examples photographed by students during fieldwork

Architectural structures, patterns, and other visual elements unique to the area were also photographed and archived in a shared folder to be used in the design process. The field research allowed students to observe the variety and placement of manhole covers on-site directly and to explore and experience the Türbeönü area firsthand. Following the completion of the field research, students conducted further investigations using books and online resources related to Konya's history, art, and craftsmanship to gain a deeper understanding of the region. Based on these findings, they began developing their design concepts. The design process was supported by visualization exercises conducted in the classroom and one-on-one evaluation meetings held with the course instructor. During this phase, students' designs were thoroughly reviewed, and necessary revisions were made accordingly. Ultimately, the finalized designs were prepared in a format suitable for exhibition and presented as posters ready for display.



Figure 8. Field research: Mapping manhole cover types and counts

After the completing the design works, the projects were presented as part of an exhibition held at the Konya City Workshop building. The event was attended by architects and interior designers working at the Workshop, as well as the head of the Department of Urban Aesthetics and faculty members from the Department of Industrial Design. During the event, the designs were evaluated in detail, and ideas were exchanged on the feasibility and implementation potential of the projects. In this regard, the knowledge sharing among participants made a significant contribution to the development of the projects and the creation of design solutions that are applicable within the local context. Presenting the historical and cultural significance of the Türbeönü area before evaluating the designs provides valuable context that allows for a better understanding of the area's influence on the design process.

Türbeönü Bazaar

Konya is one of the oldest cities in Turkey, and it is rich in historical and cultural heritage. Throughout the ages, it has hosted various civilizations. Successive civilizations such as the Roman, Byzantine, Seljuk, and Ottoman empires settled in the region. These civilizations have influenced and layered the city's urban fabric. During the Roman and Byzantine periods, settlements were primarily concentrated around Alaeddin Hill. However, in the Seljuk era, with the arrival of the prominent Sufi mystic and philosopher Mevlâna Celaleddin-i Rumi and the establishment of the Mevlâna Lodge, the city began to expand southeastward, leading to a shift in the urban center. The construction of a main avenue connecting Alaeddin Hill and the Mevlâna area, along with the development of administrative and commercial buildings along this axis, reshaped the core of the city and turned this region into a significant component of Konya's cultural and visual identity.

The square addressed in the workshop, known as Türbeönü (literally "in front of the tomb"), derives its name from the nearby tomb of Mevlâna Celaleddin-i Rumi, reflecting its deep-rooted connection to the city's spiritual and architectural heritage. Historical records indicate that the area has been called by various names over time, such as "Türbe-i Mevlâna" and "Türbe-i Celaliye" (Çelik, 2024: 226). Today, both the tomb, which also functions as a museum, and the adjacent bazaar area attract a significant number of domestic and international tourists daily. Due to its proximity to historic buildings, as well as being surrounded by roads, tram lines, mosques, hotels, restaurants, and commercial spaces, the area serves as a vibrant public space. In this respect, it holds a central place among the city's culturally significant sites, reflecting the identity and heritage of Konya.

In collaboration with the Ministry of Environment, Urbanization and Climate Change; the Konya Metropolitan Municipality launched *The urban design project for the historical Mevlana Square and the holistic conservation and redevelopment of the surrounding area*. The renovation project, which covers an area of approximately 25,000 square meters, aims to reconstruct and restore traditional Konya houses by Seljuk architectural principles. Additionally, it includes the design of social amenities, cafés, and urban furniture tailored to the specific needs of the area.



Figure 9. Tırbeönü Bazaar renovation project- before and after

The section of the project area addressed in the workshop was completed in August 2022 as part of the broader initiative involving the renewal of numerous historical structures. Oral (2017: 121) provides a detailed summary of the scope of the urban design project, the preparatory process, and the analytical studies conducted. A key component of the project's preparation phase involved detailed planning related to existing and proposed infrastructure, including the design of sewage, potable water, storm water, and drainage systems. However, the continued use of standardized manhole covers across Konya during this process represents a significant shortcoming in terms of developing original designs that align with the area's cultural identity. The incorporation of uniquely designed manhole covers that reflect the historical and cultural values of the region has the potential to contribute to the preservation of urban identity and to strengthen spatial belonging.

FINDINGS

Evaluation of the Results of the Manhole Cover Design Workshop

A total of 17 students participated in the design workshop: 9 from the Department of Industrial Design, 6 from the Department of Cartoon and Animation, and 2 from the Department of Painting. The course instructor also contributed to the exhibition held after the workshop with additional designs. The diversity of the projects, shaped through interdisciplinary collaboration, stood out as a significant feature. Konya's rich historical and cultural background was reflected in the patterns and symbols of the designs, each infused with different functions and meanings. This section analyzes selected examples from the designs produced and exhibited within the workshop by grouping them according to the meanings of the symbols used, their similarities, and differing design approaches. To systematically present the designs, they are categorized into four groups based on their primary characteristics; colorful patterns, Mevlana-themed motifs, functional elements, and traditional figures and motifs. The outcomes of the workshop indicate that manhole covers may serve as effective tools for urban storytelling, enhancing both the cultural and aesthetic expression of the city.

Manhole covers are produced with coatings in various colors and patterns. Typically manufactured in a standard size of 60x60 cm, these covers allow for the implementation of many intricate design elements due to the ease of the production technique. Colored covers, which can also be coated with fluorescent paints, have the potential to enrich public spaces by creating a visual atmosphere even during nighttime. The designs presented in Figure 10 are examples envisioned in color. Inspired by traditional motifs, these works were respectively based on stained glass patterns, tulip motifs, and Seljuk-era ceramic tile designs. The final design, distinct from the others, aims to create a symbolic composition by combining the endemic Konya black tulip (karaüşmen), the Butterfly Valley, and architectural elements typical of traditional Konya houses.



Figure 10. Colorful manhole cover designs

The Türbeönü area attracts numerous tourists each year. The primary reason for these visits lies not only in the cultural and historical fabric of the site but also in its location of the tomb of Mevlâna Celaleddin-i Rumi, an influential figure admired worldwide for his philosophy of universal tolerance and Sufism. The manhole cover designs shown in Figure 11 were created to reflect the spiritual significance of the setting and to capture the attention of tourists visiting Mevlâna’s tomb, encouraging them to pause and reflect.

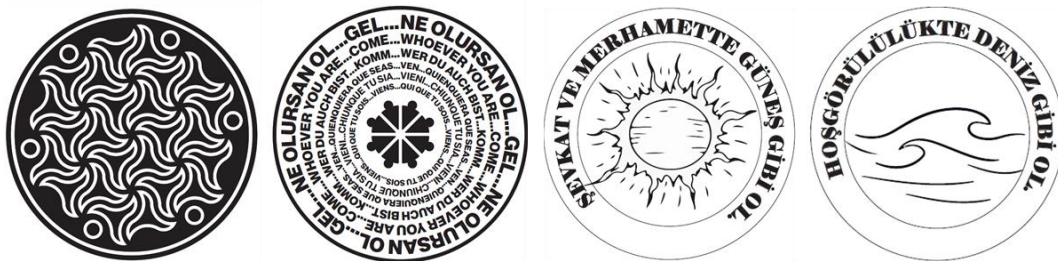


Figure 11. Mevlana themed manhole cover designs

The first design was inspired by the harmonious whirling of the dervishes and is structured to allow for easy replication and arrangement from various angles and positions. The second design was developed to welcome visitors from around the world with Mevlana’s universal message. At its center is a symbol representing the coming together of people from diverse languages and cultures. The final two designs, presented as seven variations, are intended to be installed at different points throughout the bazaar. These aim to allow visitors to encounter and contemplate Mevlana’s seven advices during their walk. These designs not only showcase Konya’s hospitality and cultural richness but also convey Mevlana’s message of tolerance and love at every step. In addition to examples reflecting traditional and cultural values, some students approached the design of manhole covers not merely as decorative elements, but also with a focus on functionality. Figure 12 shows four designs, each exploring functionality through QR codes, compass motifs, and wayfinding elements. The first two examples were designed to promote Konya’s touristic regions. Visitors visiting Konya can easily access detailed information about the city’s key landmarks through the QR codes placed at the center of the designs. The third example incorporates a compass to help visitors orient themselves concerning their location. The final design includes a directional sign that aims to remind visitors exploring Konya of the city’s prominent cultural and touristic landmarks.

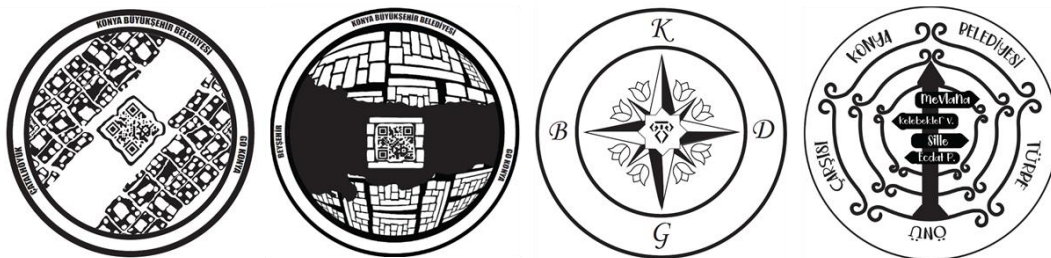


Figure 12. Functional manhole cover designs

Manhole covers that provide access to wastewater systems often have a monotonous and visually unappealing appearance. Within the scope of the workshop, students worked on transforming these covers from merely functional objects into aesthetic elements that contribute to the city’s visual identity. In the examples shown

in Figure 13, various traditional motifs and figures associated with the city and, more broadly, with Anatolia were utilized to achieve this aesthetic approach.



Figure 13. Manhole covers featuring traditional motifs and figures

The first design was inspired by lace motifs meticulously crafted by women to decorate their homes in traditional Turkish households. The second design draws upon patterns commonly found in carpet and kilim weaving, which are integral to Turkish culture in Central Asia. The final design presents a composition formed through mirror symmetry, featuring regionally significant symbols such as wheat spikes, the phoenix (Anka bird), the Seljuk star, and arched architectural elements.

In this section, the manhole cover designs created by students were evaluated based on their similarities. The works were assessed within four main themes: colorful manhole cover designs, Mevlana-themed designs, functional designs, and those inspired by traditional motifs and figures. Although categorized separately, the works are not entirely independent from each other; as they all reflect the cultural fabric of the same city, they share common values through the symbols used.

CONCLUSION

Urban design encompasses numerous elements that shape a city's visual identity, including architecture, public spaces, street furniture, and street art. Among these, manhole covers -often overlooked due to their standard and mundane appearance as we walk over them- hold significant potential as a neglected design element in public spaces. Around the world, there are countless examples of manhole cover designs, with many artists and collectors valuing them as collectible items. Particularly in Japan, the movement of designing manhole covers has highlighted their role in reflecting local identity and expressing social values. Manhole covers are relatively easy to design and produce, and at a low cost, they can add unique value to the areas where they are placed. Positioned at the intersection of urban, product, and graphic design, they provide a suitable field for interdisciplinary collaboration among students from various design backgrounds. In this context, a manhole cover design workshop was organized as part of the "Design and the City" interdisciplinary elective course, bringing together students from different departments. The workshop's focus area was selected as Konya's Türbeönü district, a site undergoing recent urban renewal, to contribute to the ongoing revitalization efforts.

During the workshop conducted at Konya Şehir Atölyesi, students had the opportunity to interact with architects and interior architects working in the field of urban aesthetics. The workshop enabled design students to engage with the local context, strengthening their connection to the city they live in and contributing to urban design processes. Through field research and individual literature reviews, students gained insights into the aesthetic values that reflect the historical, cultural, and local identity of their city, and were able to incorporate these insights into their designs. In this regard, in addition to designing conceptual projects as part of their theoretical coursework, students took part in a realistic and implementable project directly related to their city, reinforcing their sense of social responsibility as designers. The manhole cover design workshop emphasizes the importance of small-scale design interventions in shaping a broader urban landscape. It demonstrates how overlooked urban elements can play a meaningful role in defining a city's character when considered through the lens of design. Due to the relatively short design timeline and low implementation cost compared to larger projects, such initiatives are well-suited for use as educational projects at various levels.

Moreover, manhole cover design is not limited to industrial design students; it can also serve as an educational project for students in graphic design, painting, and other creative disciplines, as demonstrated in this workshop. At the municipal level, competitions and workshops focused on manhole cover design could be organized to promote design activities among the public and encourage the active participation of city residents in urban design processes. These initiatives can enhance both public aesthetic consciousness and communal belonging.

Author's Contributions

The study was created by a single author.

Competing Interests

There is no potential conflict of interest.

Ethics Committee Declaration

This study does not require ethics committee approval.

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Figure 5: Guo, H. (2024a). Research on ecological design of intelligent manhole covers based on fuzzy analytic hierarchy process. *Sustainability*, 16(13), 5310. <https://doi.org/10.3390/su16135310>

Figure 9: Konya Büyükşehir Belediyesi. (n.d.). *Türbe Önü Çarşıları*. Konya Büyükşehir Belediyesi. <https://www.konya.bel.tr/proje/turbe-onu-carsilari> (10.10.2025).

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