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Traditional and Modern Birdhouses as Architectural Components: A Typological and Ethical Evaluation

Neşe Başak Yurttaş*

Department of Engineering and Natural Sciences Faculty, Interior Architecture and Environmental Design Department, Biruni University.

*Corresponding author: nyurttas@biruni.edu.tr

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Abstract

Birdhouses occupy a distinctive place in Turkish architectural tradition. From the Seljuk period onward, they were incorporated into buildings as permanent shelter spaces for birds, combining practical needs with values of care and coexistence. Despite their architectural significance, few studies have compared traditional and contemporary birdhouses within a common analytical framework. This study addresses that gap by examining traditional Turkish birdhouses alongside contemporary examples in three categories: building-integrated, object-based, and instrumental approaches. The research employs a qualitative methodology that combines typological analysis with criteria-based comparison. Cases are evaluated according to four criteria: architectural integration, shelter functionality, ecological contribution, and ethical orientation. The findings show that traditional birdhouses brought shelter, architectural permanence, and compassion-based values together within the building itself. Contemporary practices are more varied. Some building-integrated examples continue this approach, while object-based designs emphasize visual expression, and instrumental systems assign birds specific functional roles. The study concludes that the main transformation lies not in form or technology, but in changing approaches to the relationship between architecture and non-human life. By combining typological and comparative analysis, the study contributes to current discussions on nature-inclusive design, multispecies design, and architectural ethics.

1.0 INTRODUCTION

Birds have been perceived across many cultures as symbolic mediators of the relationship between humans and nature, often associated with freedom, spirituality, and the continuity of life. In Turkish cultural and architectural traditions, however, birds were not only symbolic figures but also living beings whose presence was materially acknowledged within the built environment. This perspective, grounded in principles of compassion and protection, found architectural expression in the tradition of birdhouses. Emerging in Anatolia during the Seljuk period and becoming widespread in Ottoman architecture, these structures were integrated into façades, eaves, and masonry surfaces, where they provided shelter and contributed to the building's architectural composition.

In traditional Turkish architecture, birdhouses were conceived as permanent parts of buildings rather than as separate objects added after construction. Many were incorporated into mosques, madrasas, fountains, libraries, and houses, where they provided nesting spaces and shelter from the weather for small birds. Their maintenance was often supported through waqf endowments, indicating that care for animals was recognized as part of broader social and religious practices. In contemporary architecture, birdhouses appear in a wider range of forms. Some are integrated into roofs and façades, while others take the form of independent objects or are developed to serve specific ecological purposes, such as biodiversity enhancement or species management. This diversity raises a broader architectural question: how has the relationship between shelter provision, building design, and care for non-human life changed over time?

Existing scholarship on Turkish birdhouses has focused primarily on historical documentation and typological classification. Representative studies by Barışta (2000), Bektaş (2004, 2011), Karpuz (2001), and Kuban (2007) have documented birdhouses and situated them within the architectural history of the Seljuk and Ottoman periods. In the international literature, bird-friendly design has been examined primarily in relation to bird-safe façades and urban biodiversity (Şekercioğlu, 2006; Sheppard et al., 2011; Lepczyk et al., 2017). More recently, multispecies design scholarship has explored how architecture can support shared environments for humans and other species (van Dooren & Bird Rose, 2016). However, few studies have compared traditional and contemporary birdhouses in order to examine how their architectural form, shelter function, and relationship to birds have changed over time.

This study addresses that gap by comparing traditional Turkish birdhouses with contemporary applications. It combines typological analysis with a criteria-based comparative framework and evaluates the cases in terms of architectural integration, shelter functionality, ecological contribution, and ethical orientation. The analysis traces how birdhouse practices have changed from the Seljuk period to the present and what this transformation suggests about architecture’s relationship with non-human life. It is guided by the hypothesis that birdhouses in traditional Turkish architecture functioned as integrated architectural and ethical components, whereas contemporary practices have diversified into building-integrated, object-based, and instrumental approaches. By bringing historical and contemporary examples into a common analytical framework, the study contributes to current discussions on architectural ethics, multispecies design, and urban biodiversity.

2.0 METHODOLOGY

This study examines birdhouses as architectural components with ethical, spatial, and cultural significance. Rather than employing a quantitative inventory, the research adopts a qualitative, typological, and comparative methodology to analyze the transformation of birdhouses across historical and contemporary contexts. The methodological framework consists of three interconnected components: typological analysis, purposive case selection, and criteria-based comparison. This approach compares birdhouses in terms of architectural integration, shelter function, and ethical meaning.

To enhance methodological clarity, the study is based on a purposive selection of both traditional and contemporary examples. Contemporary cases were identified through a structured survey of architectural publications, design platforms (such as ArchDaily, Architizer, Designboom, and Design Milk), and selected academic sources using keywords including “birdhouse,” “bird-friendly architecture,” and “urban biodiversity

design." This initial screening generated a broad pool of examples, from which a limited number of representative cases were selected based on architectural integration, permanence, functional intent, and the availability of documentation. Temporary installations and purely conceptual proposals without evidence of sustained use were excluded. This strategy prioritizes typological diversity over numerical completeness.

Figure 1 summarizes the study's three main methodological components, typological analysis, purposive case selection, and criteria-based comparison, and illustrates how traditional and contemporary examples were categorized and evaluated within a common analytical framework.

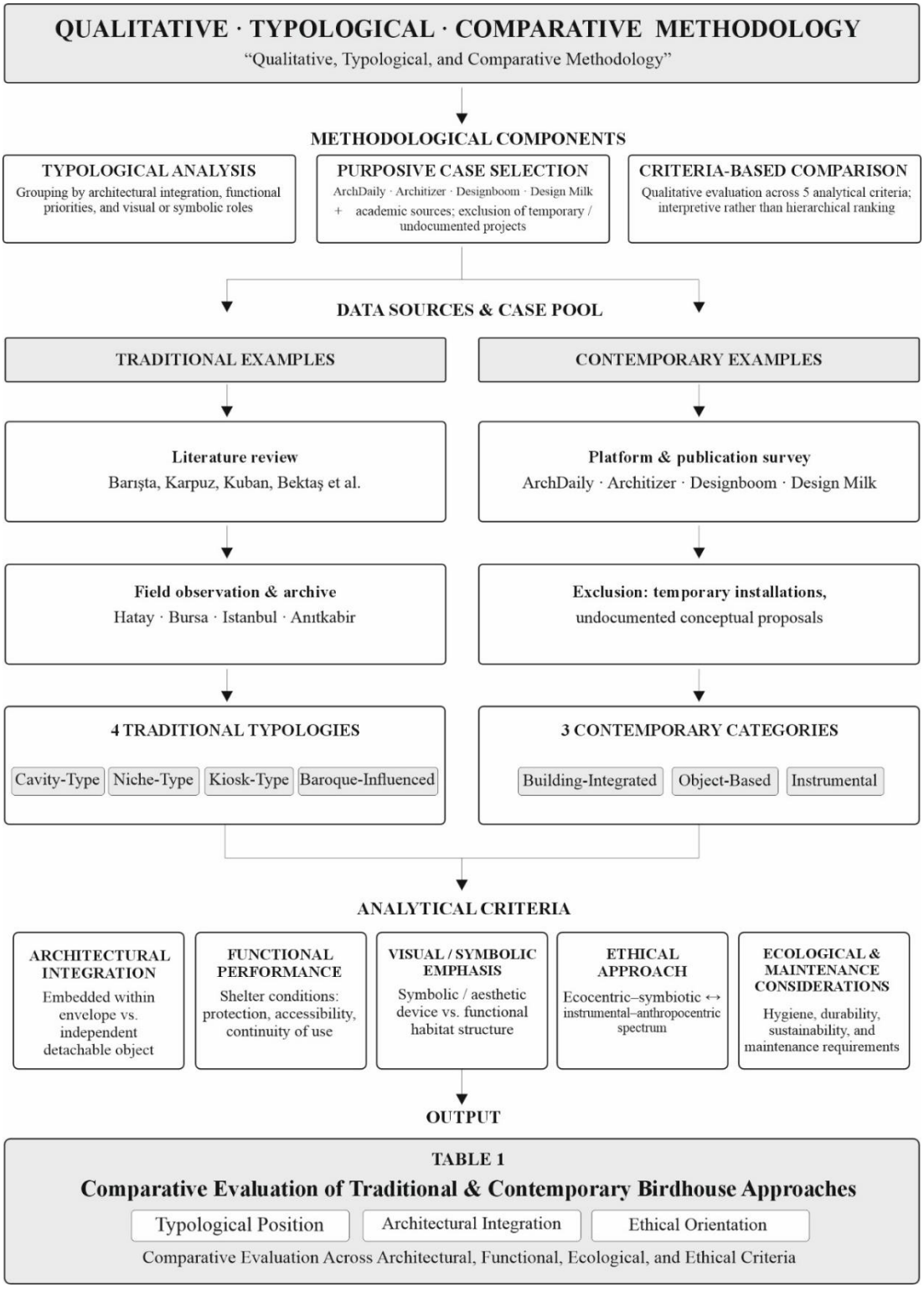

Figure 1. Methodological framework of the study (by author).

2.1 Research Approach and Typological Framework

The study follows a qualitative and interpretive approach. Typology is used as an analytical tool to examine birdhouses in terms of architectural integration, functional priorities, and degrees of visual expression, rather than as a purely formal classification. Within this framework, birdhouses are grouped into four typologies: cavity-type, niche-type, kiosk-type, and baroque-influenced examples.

2.2 Case Selection and Analytical Criteria

Case selection follows a purposive sampling strategy designed to represent different historical and contemporary approaches. Selection criteria include historical representativeness, degree of architectural integration, permanence and public character, availability of documentation, and comparability with traditional typologies. The comparative analysis is structured around four criteria: architectural integration, functional performance, visual emphasis, and ethical approach.

Architectural integration is assessed by whether bird-related elements are embedded within the building envelope or exist as independent, detachable objects. Functional performance refers to the extent to which designs provide actual shelter conditions, including protection, accessibility, and continuity of use. Visual emphasis examines the extent to which bird-related elements serve as symbolic or aesthetic devices rather than as habitat structures. Ethical approach is interpreted through the positioning of birds within the design logic, ranging from ecocentric and symbiotic considerations to instrumental or human-centered frameworks.

These criteria are used for interpretive comparison rather than hierarchical ranking. A distinction between building-integrated and object-based approaches is maintained to clarify shifts in architectural meaning and human–non-human relations.

3.0 CONCEPTUAL AND THEORITICAL FRAMEWORK

This section establishes the study's conceptual framework by situating birdhouses within broader discussions of coexistence, care, and human–non-human relations in architecture.

3.1 Relationships Between Humans, Animals and the Built Environment in Turkish Culture

In Turkish cultural contexts, human–nature relations have often been associated with principles of coexistence, protection, and compassion alongside practical considerations. During the Seljuk and Ottoman periods in Anatolia, animals were widely integrated into urban life, and practices such as birdhouses, shelters for street animals, public water provisions, and waqf-supported care for animals were documented in both architectural and historical sources (Barışta, 2000). These examples illustrate how such values were incorporated into everyday urban life and architectural practice.

Within this context, birdhouses function not merely as structural voids for shelter, but as architectural elements through which relationships between humans and animals take architectural form. Malik Aksel's observations on Anatolian and Istanbul architecture emphasize that bird nests were perceived as natural extensions of buildings, reflecting a culturally embedded familiarity with non-human life (Aksel, 1960). In parallel, perspectives from Islamic thought that emphasize the interconnectedness and value of living beings provide an additional context for understanding these practices (Masri, 1989; Nasr, 1996).

3.2 Ecocentric and Anthropocentric Design Approaches

Ecocentric approaches challenge human-centered worldviews by positioning all living beings as integral components of the ecosystem. Within environmental ethics, this perspective is grounded in the recognition of the intrinsic value of non-human entities and reframes human–nature relationships in ways that move beyond hierarchical structures (Plumwood, 1993). In architectural terms, this implies a shift from exclusively human-oriented design toward approaches that consider ecological integrity alongside human needs.

The ethical dimension of ecocentrism has been articulated through concepts such as the "land ethic", which frames human responsibility toward nature as a holistic relationship extending beyond conservation practices (Callicott, 1989). From this perspective, architecture can be viewed as both a technical practice and an ethical activity shaped by ecological relationships.

In contrast, anthropocentric design approaches prioritize human needs, often positioning non-human life in instrumental terms. This perspective, reinforced through processes of modernization, has contributed to the production of built environments driven by efficiency, control, and economic rationality. As Latour argues, the conceptual separation between nature and culture has played a central role in shaping such practices (Latour, 1993).

Contemporary critiques of anthropocentric design highlight its long-term environmental and ethical limitations. These critiques argue that architectural and urban practices should move beyond exclusively human-centered priorities and recognize the interdependent relationships between humans, animals, and ecological systems (Curry, 2011). Within this perspective, birdhouses can be interpreted not only as sheltering structures but also as architectural expressions of coexistence within the built environment.

3.3 Forms of Interspecies Relations: Symbiotic, Mutualistic and Utilitarian Approaches

In ecological literature, interspecies relations are defined by the nature and direction of interactions between living beings. Symbiotic relationships refer to long-term forms of coexistence in which species adapt to shared environmental conditions (Margulis, 1998). In this sense, symbiosis can be understood not only as a biological process but also as a mode of cohabitation grounded in continuity and interdependence.

Mutualistic relationships are interactions in which both parties benefit, contributing to ecological balance and system resilience (Odum & Barrett, 2004). In contrast, utilitarian relationships prioritize the needs of one party, typically humans, by positioning other species within functional frameworks aligned with specific objectives (Begon, Townsend, & Harper, 2006). Within such configurations, non-human life is more likely to be instrumentalized, and anthropocentric priorities become dominant.

When interpreted through this framework, traditional Turkish birdhouses can be associated with a predominantly symbiotic mode of coexistence, as they provide shelter without direct expectations of human benefit. However, this distinction should not be understood as absolute. Contemporary practices display a wider spectrum, ranging from instrumental approaches, such as pest control or behavioral conditioning, to hybrid systems that combine ecological support with functional or technological performance.

Ingold's (2000) concept of dwelling provides an important perspective for interpreting these approaches by framing humans and non-human beings as participants in shared environmental processes rather than as separate entities. From this perspective, birdhouses can be understood as elements within broader relational systems in which shelter, integration, and maintenance vary across contexts.

Together, these perspectives provide a conceptual basis for interpreting birdhouses as architectural responses to human–non-human relations, consistent with recent discussions in multispecies design research (Grobman et al., 2023). Within this perspective, birdhouses can be understood not simply as isolated design elements, but as spatial interfaces through which architecture negotiates coexistence with other species.

4.0 TYPOLOGICAL DEVELOPMENT OF BIRDHOUSES IN TURKISH ARCHITECTURE

This section examines birdhouses as architectural practices that integrate shelter provision into buildings and reflect broader social and ethical values. Rather than following a linear historical chronology, the analysis adopts a typological framework based on spatial integration, functional priorities, and degrees of architectural visibility. While these typologies broadly correspond to historical periods from the Seljuk to the Ottoman era, they are primarily understood as cumulative expressions of an evolving architectural practice. This typological framework provides the analytical basis for the comparative evaluation presented in Table 1 and the discussion of contemporary approaches.

4.1 Cavity-Type Bırdhouses: Early Structural Shelter Solutions

Cavity-type birdhouses represent the earliest and most minimal forms of avian shelter in Turkish architecture. Observed in structures dating to the Anatolian Seljuk period, this typology consists of small cavities carved directly into masonry walls, providing nesting sites for birds. Examples from Tokat, Kayseri, Konya, and Sivas show that birds were considered part of urban life (Karpuz, 2001).

In this typology, formal expression is highly restrained, with no emphasis on ornamentation or visual display. These cavities function as direct architectural responses to shelter needs, positioned to protect birds from environmental conditions such as rain, cold, and predators. Their placement reflects an awareness of avian behavior and environmental requirements, indicating that shelter provision was considered as part of the architectural design process (Kuban, 2007).

A notable continuation of this practice is evident in vernacular structures in Hatay and surrounding regions, where bird shelters are locally referred to as “kuş takası” (literally, “bird niches”) (Figure 2). This terminology indicates that such elements were not perceived merely as construction details but as culturally recognized spatial provisions embedded in everyday life.

Figure 2. Examples of “kuş takası” (bird niches) in Hatay’s local architecture (author’s archive, November 18, 2022)

This continuity is also evident in the Hacılar Mosque (1470) in Bursa (Figure 3), where narrow cavities carved into the masonry of the minaret shaft serve as integrated shelter units. The incorporation of such elements within the structural envelope indicates that bird shelters were conceived as part of the architectural system rather than as later additions.

Figure 3. Hacılar Mosque, 1470, Bursa; cavity-type birdhouses integrated into the building fabric (author’s archive, March 28, 2024)

Drawing on Margulis's (1998) definition of symbiosis, cavity-type birdhouses can be interpreted as an early example of a symbiotic relationship between humans and birds. Shelter is provided without an explicit expectation of direct human benefit, and avian habitation is integrated into the building's structural fabric rather than added as a separate element. In this respect, cavity-type birdhouses illustrate how care for non-human life was embedded in architectural practice at a basic and durable level.

4.2 Nıche-Type Bırdhouses: Increasıng Spatıal Artıculatıon on the Buıldıng Façade

Niche-type birdhouses represent a stage in which bird shelters establish a more defined spatial relationship with the building façade. Becoming widespread during the early Ottoman period, this typology is characterized by niches positioned beneath eaves, within façade recesses, or above windows. Unlike cavity-type examples, these applications indicate a shift from incidental voids toward consciously located architectural elements within the façade composition (Barışta, 2000).

While aesthetic expression remains relatively restrained, the spatial articulation of birdhouses becomes more explicit. Their placement relative to architectural components suggests that shelter provision was increasingly considered in the design process rather than treated solely as a functional necessity. Despite this, niche-type birdhouses remain modest in scale and subordinate to the overall architectural language.

Compared with cavity-type examples, niche-type birdhouses offer greater visibility, making the act of providing shelter more legible within the façade. However, they do not yet function as independent architectural units; instead, they remain integrated within the building scale and limited in representational capacity. In this sense, niche-type birdhouses can be interpreted as an intermediate stage between embedded shelter provision and later forms of architectural representation (Figure 4).

Figure 4. Public Library, 1699, Istanbul; example of a niche-type birdhouse on the building façade (Turkiyenintarihieserleri, 2025).

Within the conceptual framework developed in Section 3, niche-type birdhouses can be interpreted as a transitional stage in which shelter provision becomes more intentionally incorporated into the architectural composition while remaining fully integrated into the building itself.

4.3 Kiosk-Type Birdhouses: Miniature Architectural Units within the Building Fabric

Kiosk-type birdhouses represent the most architecturally articulated stage in the development of bird shelters in Turkish architecture. Becoming widespread during the Classical Ottoman period, this typology is characterized by multi-chamber compositions, articulated entrances, eaves, and ornamental detailing, forming miniature architectural units with a distinct volumetric presence (Barışta, 2000).

The emergence of this typology is associated with the Ottoman waqf (foundation) system, where provisions for bird feeding, water, and maintenance are documented in foundation records (Kunter, 1938). This context indicates that birdhouses were not solely individual expressions but were embedded within broader institutional and social frameworks of care.

Architectural and cultural interpretations emphasize that these structures reflect socially embedded attitudes toward non-human life. Aksel interprets Ottoman birdhouses as expressions of societal sensitivity, while Bektaş describes them as architectural expressions of a deeply rooted ethical approach (Aksel, 2015; Bektaş, 2011). Within a broader cultural context, these interpretations can also be related to discussions of compassion toward non-human life in Islamic thought (Foltz, 2006).

Within this framework, kiosk-type birdhouses demonstrate a high degree of architectural integration, aligning with the formal language of the host building while maintaining their identity as distinct spatial units.

Their presence indicates that bird shelters were conceived as intentional and enduring elements of architectural design, making birds more visible as inhabitants of urban space (Figure 5).

Figure 5. Eyüp Sultan Mosque, 1458, Istanbul; example of a kiosk-type birdhouse integrated into the building façade (Magmadergisi, 2025).

Kiosk-type birdhouses demonstrate a high degree of architectural integration, functioning not as supplementary additions but as permanent spatial components incorporated into major buildings. Their maintenance through waqf endowments further indicates that the provision of shelter for birds was understood as a continuing architectural and social responsibility.

4.4 Baroque-Influenced Birdhouses: Aesthetic Intensification and Architectural Representation

The formal transformation observed in Ottoman architecture during the eighteenth century was also reflected in birdhouse design. During the Tulip Period, a Baroque-influenced aesthetic language became more visible, introducing curvilinear forms, relief surfaces, and more dynamic façade compositions (İnalcık & Renda, 2007). Compared to earlier typologies, birdhouses in this period became more pronounced elements within the architectural composition.

This development does not indicate a discontinuity in care-oriented practices. Birdhouses continued to function as integrated components of buildings and were positioned in protected areas of façades to support sheltering needs. However, aesthetic articulation and representational expression became more prominent, extending their role beyond functional provision (Necipoğlu, 2005).

Rather than marking a rupture, this phase can be understood as a shift in design emphasis. While earlier typologies prioritized shelter and spatial integration, Baroque-influenced examples gave greater prominence to architectural expression while maintaining structural integration and permanence (Hamadeh, 2008). Baroque-influenced birdhouses can therefore be interpreted as an intermediate stage between earlier typologies and contemporary approaches, illustrating a gradual shift in the balance between function and representation (Figure 6).

Figure 6. Valide-i Cedid Mosque, 1710, Üsküdar, Istanbul; example of a Baroque-influenced birdhouse integrated into the building façade (author's archive, May 05, 2026).

In this respect, Baroque-influenced birdhouses illustrate a stage in which architectural representation became increasingly visible without fully separating shelter provision from the building itself.

4.5 From Tradition to Modernity: The Transformation of the Architectural Position and Representational Meaning of Birdhouses

During the Ottoman period, birdhouses were not limited to the imperial capital but continued to evolve within local architectural practices across Anatolia. However, processes associated with modernization in the late nineteenth and early twentieth centuries led to significant transformations in their architectural presence. Increasing building scales, the rise of apartment housing, and standardized construction gradually altered the conditions for integrating birdhouses into buildings.

An example from Bursa, discussed by Cengiz Bektaş, illustrates how the disappearance of birdhouses following the demolition of traditional buildings also affected their continuity within cultural memory (Bektaş, 2004). In this context, birdhouses increasingly shifted from being integral architectural components toward more detached or representational forms.

Nevertheless, certain modern examples demonstrate attempts to reinterpret this tradition within new architectural frameworks. Anıtkabir, designed by Emin Onat and Orhan Arda, presents a notable case in which references to Seljuk, Ottoman, and Central Asian architectural traditions are rearticulated within a modern monumental language (Bozdoğan, 2020). The birdhouse integrated into this complex can be interpreted as a deliberate inclusion, reflecting the continuation of shelter-oriented architectural practices within a modern representational framework (Figure 7).

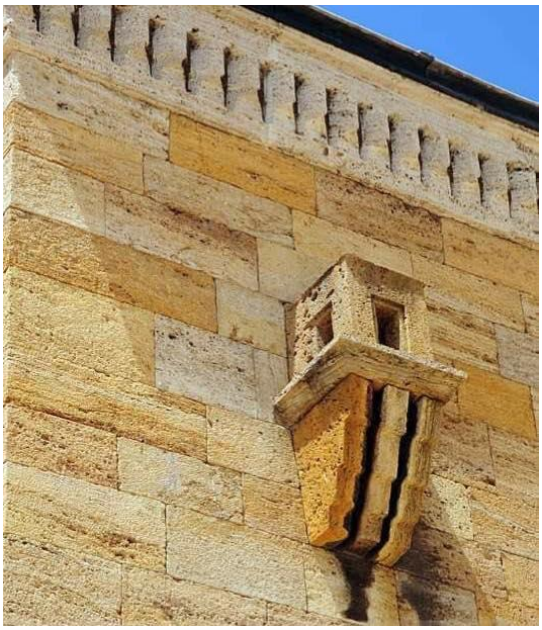

Figure 7. Anitkabir Birdhouse (author's archive, November 10, 2022)

These examples indicate that birdhouses did not disappear in the modern period but underwent shifts in position, meaning, and architectural integration. The typological development outlined in this section should be understood as a gradual transformation shaped by changing architectural priorities and shifting approaches to accommodating non-human life within the built environment.

5.0 TRADITIONAL AND CONTEMPORARY APPROACHES TO BIRDHOUSES: A TYPOLOGICAL AND ETHICAL EVALUATION

This section compares traditional Turkish birdhouses with contemporary approaches using architectural, functional, ecological, and ethical criteria. It examines building-integrated, detached, and instrumental approaches to evaluate how the relationship between birdhouses, buildings, and birds has changed over time.

5.1 Building-Integrated Birdhouses: Contemporary Interpretations

This subsection examines how the integration of birdhouses into buildings, as observed in traditional Turkish examples, is reinterpreted in contemporary architecture. Building-integrated birdhouses treat shelter as part of the building rather than as an add-on.

A notable example is the Birdhouse Rooftile, designed by Dutch designer Klaas Kuiken, which integrates bird shelters directly into the roof-covering system (Kuiken, 2026). Made of terracotta, the system treats the nest as a permanent architectural element integrated into the roof. This logic parallels traditional Turkish birdhouses placed beneath eaves, where avian habitats were deliberately associated with protected architectural zones (Figure 8).

Figure 8. Example of a terracotta birdhouse integrated into a roof covering (Kuiken, 2026).

A similar integrative strategy is evident in the bird- and insect-friendly terracotta façade system developed through the collaboration of COOKFOX Architects and Buro Happold (COOKFOX Architects/Buro Happold, 2025). In this project, the façade incorporates micro-habitat pods for birds and insects while maintaining architectural coherence (Figure 9). Research on bird-friendly buildings shows that façade design and building-envelope strategies play an important role in reducing bird-related risks and creating more supportive conditions for multispecies habitation (Sheppard et al., 2011; Saeidi et al., 2023). These findings support the logic of traditional Turkish birdhouses, in which shelter was permanently integrated into the building. Detached or temporary installations are less likely to support long-term nesting.

Figure 9. Facade cladding, integrated birdhouse example (COOKFOX Architects/Buro Happold, 2025).

This approach shows continuity with traditional Turkish practices, in which birds were accommodated within the architectural environment. In this respect, building-integrated birdhouses support long-term habitat provision through architectural integration rather than detached placement.

5.2 Detached Birdhouses: Object-Oriented Design Approaches

In contemporary architectural and design practice, birdhouses have increasingly detached from their traditionally integrated positions within buildings, often taking the form of independent design objects. This shift indicates a redefinition of birdhouses not as structural or spatial components of architecture, but as aesthetic, conceptual, or symbolic artifacts. Particularly through exhibitions, design festivals, and digital platforms, many contemporary examples are evaluated primarily in terms of representation, communication, and design language rather than their capacity to provide sustained habitat.

A representative example of this tendency is the NumBird project. Developed through typographic forms, the design transforms the negative spaces of letters into bird nests, effectively converting the birdhouse into a communicative object. In NumBird, the shelter functions less as part of an architectural whole and more as a graphic and formal message addressed to human perception. Consequently, the birdhouse functions primarily as a symbolic object rather than as a long-term habitat (Figure 10).

Figure 10. An example of a birdhouse in a typological form as a facade element (Numbird, 2025).

A comparable object-oriented approach is observed in the Architects for Birds series, which presents birdhouses as small-scale representational extensions of architectural authorship. Produced by architects and designers, these birdhouses function as independent objects through which individual design languages and conceptual positions are expressed. Developed for exhibition contexts, these examples treat birdhouses as design objects rather than as integrated architectural elements (Figure 11).

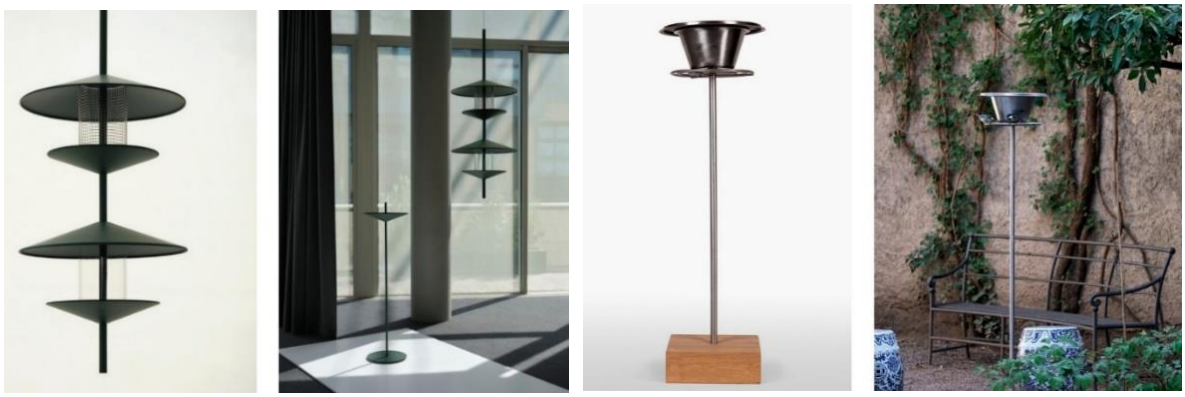

Figure 11. Examples of birdhouse design objects; on the right: Norman Foster, Birdfeeder, 2025, on the left: Jacques Herzog, Utensils, 2025 (Architects for the Birds, 2026).

When considered together, NumBird and Architects for Birds illustrate an approach in which visual communication and design expression often take precedence over long-term habitat provision. In many cases, shelter requirements are secondary to aesthetic and representational priorities. Compared with the integrated and permanent approaches found in traditional Turkish birdhouses, these contemporary examples are often temporary or mobile and less directly connected to the building itself.

At the same time, initiatives such as Architects for Birds raise public awareness by positioning birdhouses within cultural and architectural debates. By framing birdhouses as discursive tools rather than solely functional habitats, such projects invite reflection on human–nature relations, even when their direct ecological contribution remains limited.

5.3 Instrumental / Utılıtarıan Approaches: Ecosystem Services and Functıonalization

This subsection examines contemporary design approaches in which birds are engaged not primarily for shelter but for specific benefits, such as pest control, urban cleaning, or ecosystem services. While Sections 5.1 and 5.2 discussed integrated habitat models and representational transformations, this subsection focuses on cases where birds are incorporated into systems designed to achieve specific human goals.

A particularly illustrative example is the Crowbar concept, which proposes using crows' cognitive abilities to collect cigarette butts in urban environments (Spikman & Vleuten, 2017). Rather than providing shelter or spatial protection, the system operates through reward-based training, directing birds' learning capacities toward addressing an environmental problem created by human activity. In this context, birds are framed less as autonomous ecological agents and more as contributors to a specific urban management task (Figure 12).

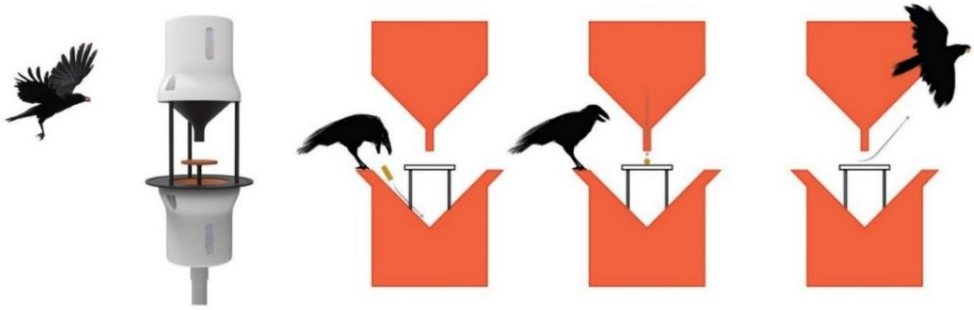

Figure 12. An example of an instrumental/utilitarian approach is the Crowbar concept (Rubenvandervleuten, 2025).

At the same time, ecological research highlights the important role of birds in regulating insect populations and supporting ecosystem balance, particularly in agricultural contexts (Şekercioğlu, 2006). In some organic farming practices, spatial strategies such as birdhouse placement simultaneously support avian shelter needs and sustainable production. These examples suggest that functional considerations do not inherently exclude ecological or ethical awareness, but rather depend on whether birds are supported as part of the habitat or used primarily to achieve a specific function.

Beyond such cases, emerging architectural applications indicate a shift toward more integrated interpretations of functionality. A contemporary façade system observed in Barcelona combines vertical vegetation, modular substrate units, and photovoltaic panels, supporting urban biodiversity while generating energy. Unlike purely instrumental approaches, this system creates micro-habitats for birds and other species, providing habitat for birds and insects while also contributing to energy production. In this sense, functionality is not limited to exploitation but can evolve into hybrid ecological systems that combine practical functions with long-term habitat provision (Figure 13).

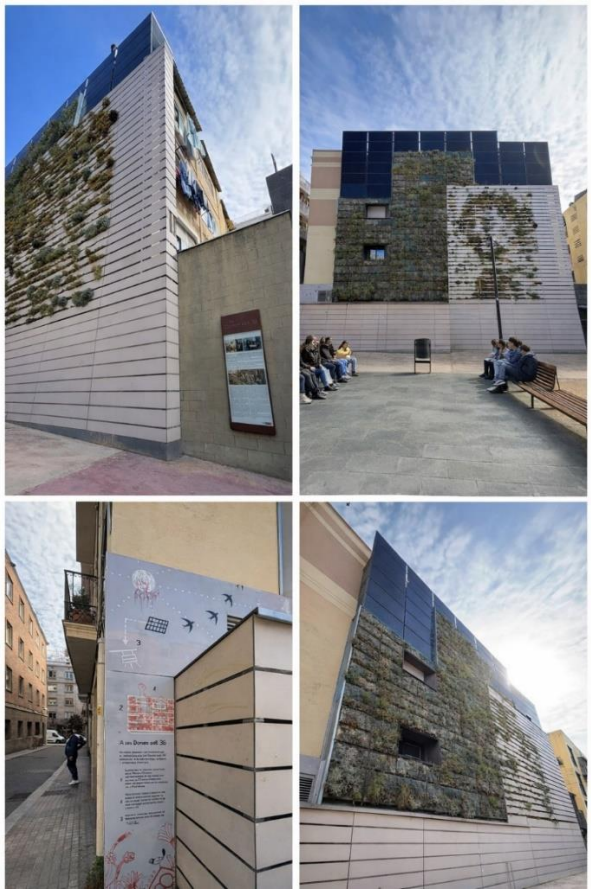

Figure 13. Biodiversity-oriented façade system in Barcelona integrating vertical vegetation and photovoltaic panels to provide habitat for urban species while generating energy (author's archive, April 16, 2026).

Within this spectrum, instrumental approaches show how birds may be incorporated into design strategies for purposes such as waste collection, pest control, or biodiversity support. They also demonstrate that functional goals and habitat provision are not necessarily incompatible. The key issue is whether birds are accommodated as part of a lasting habitat or used primarily to perform a specific task.

5.4 Comparative Typological Evaluatıon: A Criteria-Based Analysis of Traditional and Contemporary Birdhouses

This subsection compares traditional Turkish birdhouses and contemporary applications using a shared set of architectural, functional, ecological, and ethical criteria, together with considerations of continuity, representation, and maintenance. These criteria provide a common basis for interpreting historical and contemporary examples. Within this framework, Table 1 summarizes the principal characteristics of each approach. Traditional Turkish birdhouses are integrated into façades, eaves, and masonry surfaces as permanent parts of buildings. Contemporary applications include building-integrated systems, detached object-based designs, and instrumental approaches developed for specific ecological or behavioral purposes. These categories differ in how shelter is incorporated into architecture, how long it is intended to remain in place, and the role assigned to birds within the design concept.

Table 1. Comparison of Traditional and Contemporary Birdhouse Approaches (by author).

Criteria / Approach	Traditional Turkish Birdhouses	5.1 Building-Integrated (Contemporary)	5.2 Detached / Object-Based	5.3 Instrumental / Utilitarian
Architectural integration	Integral part of the building; integrated with facade, eaves, and structure	Integrated into the building envelope; component of roof or facade systems	Independent from the building, added later, or designed as a free-standing object	Detached from the building or attached through temporary structures
Shelter functionality	Provides long-term, protected shelter suitable for species-specific behavior	Shelter function is a primary design input	Often symbolic; shelter function is secondary or unclear	Shelter is secondary; the primary aim is behavioral guidance
Ecological contribution	Indirect contribution to the continuity of the urban ecosystem	Supports ecological integrity through micro-habitat production	Ecological contribution is limited and often not measurable	Provides targeted ecosystem services (behavioral intervention)
Ethical/symbolic meaning	Compassion-based; unconditional protection	Ecocentric; coexistence is foregrounded	Anthropocentric tendency; design and aesthetic priorities dominate	Explicitly instrumental and human-centered
Production and continuity	Produced as a permanent element together with the building	Long-term solutions parallel to the lifespan of the building	Temporary, portable, or easily replaceable	Temporary, experimental, or campaign-oriented
Representational character	Part of architectural memory	Ethical-ecological representation in contemporary architecture	Design object/exhibition artifact	Behavioral tool/intervention device
Typological position	Ecocentric–mutualist	Ecocentric–symbiotic	Anthropocentric–aesthetic-oriented	Anthropocentric–utilitarian

Ecological & Maintenance Considerations	Low intervention; natural ventilation; minimal maintenance; limited hygiene control; passive ecological integration	Integrated ecological systems support biodiversity; managed maintenance; improved durability; moderate hygiene control (including hybrid systems such as biodiversity-oriented façades)	Variable maintenance; limited ecological integration; durability depends on materials; hygiene is inconsistent	High control systems; no habitat provision; maintenance-oriented; hygiene not relevant to ecological function

The comparison indicates that birdhouses have diversified into distinct design approaches rather than following a linear progression. Traditional and building-integrated examples incorporate shelter directly into buildings, whereas detached and instrumental approaches emphasize symbolic or targeted functional roles.

This distinction is consistent with findings from urban ecology, which show that the availability and spatial continuity of nesting structures within the built environment are important factors in supporting urban bird populations (Lepczyk et al., 2017). Building-integrated applications reinterpret the logic of embedded shelter through roof and façade systems. In contrast, detached object-based designs function primarily as independent artifacts placed alongside buildings or in public space. Specific ecological or behavioral objectives, including biodiversity enhancement and species management, shape instrumental approaches. Together, these approaches demonstrate that architectural integration has ecological implications beyond formal composition. At the same time, detached and instrumental strategies can also contribute by raising awareness, testing alternative designs, and addressing species-specific needs.

6.0 DISCUSSIONS

The comparative analysis indicates that the most significant transformation in birdhouse practices concerns not only form or material, but the way shelter is positioned within architecture itself. In traditional Turkish examples, providing habitat for birds was not treated as an additional feature; it was incorporated directly into the construction process. Contemporary building-integrated approaches continue this logic, although they rely on industrial terracotta systems, modular façade components, and contemporary environmental technologies rather than carved masonry. Detached and instrumental approaches, by contrast, position birds outside the architectural envelope, either as subjects of symbolic representation or as participants in targeted ecological functions. In this respect, what changes across these categories is not simply the presence or absence of concern for non-human life, but the architectural position assigned to that concern: integrated, adjacent, or instrumental.

Ingold's (2000) concept of dwelling offers an important perspective for interpreting these differences because it frames habitation as a shared process involving humans and other living beings rather than as an exclusively human condition. Viewed through this lens, traditional Turkish birdhouses can be understood not merely as acts of compassion toward birds, but as evidence that the built environment was conceived as a shared field of habitation from the outset. The waqf-supported maintenance of birdhouses further reinforces this interpretation, indicating that providing shelter for birds was regarded as an ongoing responsibility rather than a one-time intervention. Contemporary building-integrated examples follow a similar logic, although they are generally shaped by environmental and technological concerns rather than by institutionalized systems of care. Detached and instrumental approaches, on the other hand, more often position birds as temporary occupants or as part of systems organized around specific human priorities. In this sense, Ingold's distinction between dwelling and occupation helps explain why permanence and architectural integration remain important for sustaining long-term habitat conditions.

The findings also complicate a straightforward opposition between ecocentric and anthropocentric design. Plumwood (1993) argues that ecological ethics requires recognizing the intrinsic value of non-human life, implying that other species should not be understood solely as resources to be managed or symbols to be displayed. Traditional Turkish birdhouses are broadly consistent with this position, since they provide shelter without an explicit expectation of direct human benefit. At the same time, the contemporary examples examined in this study suggest that the relationship between ecocentric and anthropocentric approaches is better understood as a continuum than as a strict binary. The biodiversity-oriented façade system in Barcelona, for instance, combines habitat provision with energy generation, bringing ecological and instrumental objectives together within the same architectural system. Similarly, Architects for Birds raises public awareness of human–bird relations even when the sheltering capacity of its objects remains limited. From this perspective, contemporary birdhouse practices do not necessarily represent a departure from ethical concern, but rather reflect ongoing negotiations over how non-human life is positioned within the built environment. This interpretation also aligns with Latour's (1993) critique of the rigid separation between nature and culture, suggesting that contemporary architectural practices increasingly operate within hybrid ecological and social frameworks.

The study's main contribution lies in connecting bodies of scholarship that rarely intersect directly. Historical studies on Turkish birdhouses have largely focused on documentation, typology, and cultural history, while recent multispecies design literature (Grobman et al., 2023; Saeidi et al., 2023) has concentrated on ecological integration and shared habitation in contemporary contexts. By evaluating historical and contemporary birdhouses through the same analytical criteria, this study demonstrates that accommodating non-human life within architecture is not solely a contemporary ecological concern, but a recurring architectural question addressed differently across historical periods. In this respect, traditional Turkish birdhouses provide an important historical precedent for current discussions on nature-inclusive and multispecies design. The findings also suggest that relatively small architectural decisions, such as façade cavities, integrated nesting spaces, or sheltered structural elements, can play a meaningful role in shaping long-term human–non-human coexistence within urban environments.

At the same time, the study has several limitations. The qualitative and interpretive methodology prioritizes analytical depth over exhaustive coverage, and the selected cases represent typological diversity rather than a complete survey of contemporary practice. Ecological performance indicators such as occupancy rates, nesting success, and long-term biodiversity impact remain outside the scope of the research. Future studies may therefore expand this framework through empirical ecological evaluation, post-occupancy studies of building-integrated habitat systems, and comparative cross-cultural research examining how different architectural traditions accommodate non-human life within urban environments.

7.0 CONCLUSIONS

This study has examined traditional Turkish birdhouses and contemporary birdhouse practices as architectural responses to non-human life in the built environment. The comparative analysis shows that birdhouses are spatial provisions that bring together shelter, architectural integration, ecological function, and ethical intention. In traditional Turkish architecture, this relationship was typically realized through birdhouses integrated into buildings. Contemporary practice presents a more diverse picture, including building-integrated, object-based, and instrumental approaches, each reflecting different ways of relating architecture to ecology and to non-human life.

A methodological contribution of the study is the integration of typological analysis and criteria-based comparison within a single analytical framework. This approach makes it possible to examine historical and contemporary examples using the same set of architectural, functional, ecological, and ethical criteria, without interpreting their differences as evidence of either decline or progress. The findings show that providing shelter for birds can be incorporated into contemporary architectural design through roofs, façades, and other building elements.

The study also points to practical implications for design, planning, and education. Recent policy frameworks, including the EU Biodiversity Strategy 2030 and nature-inclusive design guidelines developed in

the United Kingdom and the Netherlands, indicate a growing recognition that buildings can contribute directly to urban ecological networks (European Commission, 2021). In this context, the Turkish birdhouse tradition offers a historically grounded precedent for integrating shelter for other species into architectural design. For architectural education, birdhouses illustrate how small design decisions can support non-human life in cities.

Birdhouses may therefore be understood not only as historical artifacts but also as precedents that can inform contemporary design practice. Future research may build on this study in several ways. Comparative case studies could examine how specific urban districts incorporate, or fail to incorporate, habitat opportunities for birds and other species. Design-based studies could translate the findings into practical criteria for façades, roofs, and public spaces, including guidelines for nesting elements, maintenance access, and species-specific requirements. Further research may also evaluate the ecological performance of these strategies through occupancy rates, nesting success, and seasonal use, while cross-cultural studies could investigate whether similar traditions of animal-inclusive architecture exist in other architectural contexts.

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