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The Role of Decorations in the Longevity of Architectural Works: A Case Study of the Azadi Tower

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Abstract

Beauty, as an innate human need, has always been at the core of art and architecture. Architectural decorations, as a means to fulfill this need, not only enhance the aesthetic appeal of structures but also play a key role in their longevity and impact. This study aims to investigate the role of decorations in the sustainability of architectural works by addressing the following questions: On what principles are architectural decorations based? And what factors make a structure enduring in the public memory? It analyzes the characteristics of effective decorations in architecture. The research employs a mixed methodology of library and field studies with a descriptive-analytical approach. First, by reviewing Iranian architectural works and then examining the practices of global architects, the study explores the significance of beauty and decorations in Iranian and global cultures, with the Azadi Tower as a case study. Findings indicate that appropriate architectural decorations possess four key characteristics and, when harmonized with local culture and expressed innovatively, can become a decisive factor in the longevity of structures. This research emphasizes the importance of decorations not merely as aesthetic elements but as identity-forming and enduring components of architecture.

Keywords: Beauty, Decorations, Architecture, Façade, Azadi Tower.

1 | Introduction

Architecture, as the art of creating space, has historically focused not only on structural and functional aspects but also on aesthetic and symbolic dimensions. Architectural decorations are among the key elements that not only enhance visual richness but also play a significant role in conveying cultural, historical, and identity-related concepts. In fact, decorations are interventions or actions carried out for beauty, aiming to respond to humanity's innate inclination toward aesthetics, thereby inducing psychological tranquility and a sense of

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joy and pleasure. This is why all arts—from poetry, writing, and calligraphy to painting, music, and architecture—pay special attention to ornamentation, each employing its decorative techniques to evoke inner delight and serenity in humans. Thus, it can be said that decorations, by creating beauty, contribute to psychological comfort and a sense of pleasure in individuals [1].

Among these, the decorations of buildings and the environments where people live or work are particularly significant. Since these spaces are constantly in view and individuals spend most of their time there (Whether at home or work), all their activities are influenced by them. This is where the art of architecture emerges, demonstrating its importance through design and ornamentation, fostering a positive emotional connection to the space. This feeling, in turn, influences human performance, enhancing productivity. A beautifully designed building with an inviting atmosphere encourages people to enter and explore, even briefly—and this marks the success of an architectural work [2].

"Investigating the role of decorations in the longevity of architectural works is particularly significant because these elements function not only as part of a building's aesthetics but also as a factor in sustaining its cultural and historical identity. In the case of the Azadi Tower, this research can contribute to a better understanding of the relationship between form, decoration, and the symbolic meaning of this iconic structure. Furthermore, the findings of this study can be applied to the conservation and restoration of contemporary architectural works as well as to the design of future projects."

"Among these, the Azadi Tower, as one of the essential symbols of Iran's contemporary architecture, incorporates a blend of traditional and modern elements, with its decorations forming an inseparable part of the structure's identity and longevity [3]. However, the question arises as to what impact architectural decorations have had on the endurance of prominent architectural works like the Azadi Tower and how these decorative elements have contributed to preserving the cultural and artistic values of this structure."

"The present study, focusing on the case study of the Azadi Tower, examines the role of decorations in the longevity of architectural works through an interdisciplinary approach (Combining architecture, art, and cultural studies). This research is innovative in that it conducts a qualitative and symbolic analysis of decorations in a prominent example of Iran's contemporary architecture. It evaluates the impact of these elements on preserving the structure's identity and cultural values. The findings of this study can provide a framework for assessing the role of decorations in other architectural works."

2 | Theoretical Foundations of the Research

As previously mentioned, architectural decorations and the design of human living environments hold particular significance because they are constantly visible, and people spend most of their time in these spaces, directly influencing human performance. Are we not inherently drawn to beauty, finding joy in everything aesthetically pleasing?

Years ago, Nan Fairbrother noted in her book The Nature of Landscape Design: "Man is the only species that alters his environment for no reason other than aesthetic inclination. If we look back at the millennia when human culture first emerged—for instance, the Sumerians in Mesopotamia and beyond—we find that we have always taken pleasure in the appearance of things, from early pottery with simple decorations to religious structures, palace complexes and ..." [4].

Thus, decorations, by enhancing the appearance of buildings, satisfy our aesthetic sensibilities while also making structures more inviting and attractive, which is an economically beneficial aspect. Naturally, people are willing to pay more for a visually appealing home than for one lacking such appeal. Many regional economies heavily rely on tourism, as visitors seek to admire beautiful landscapes and enjoy aesthetically pleasing recreational spaces [5]. Another crucial role of architectural decorations is creating harmony among different elements. Through ornamentation, we can balance and unify discordant compositions, thereby enhancing both beauty and structural coherence [6]. In many cases, the use of diverse architectural elements

serves not only to convey meaning but also to achieve visual harmony, ensuring that different volumes and sections of a building complement one another.

2.1|Types of Architectural Decorations

This study does not address interior decorations due to their vast scope and varied techniques, focusing instead on exterior and volumetric ornamentation. Four primary types of façade decorations can be identified:

2.1.1|Material-based decorations

These decorations employ diverse construction materials—ranging from colored finishes to various stones, panels (Cement, wood, etc.), metal sheets (Stainless steel, galvanized, aluminum composite, etc.), glass, and more. Material selection is the simplest method for ornamentation, creating visual contrast and diversity in façades. When carefully chosen and executed, materials significantly enhance a building's beauty and decorative appeal.

Fig. 1. Façade ornamentation types based on material diversity and visual effects.

2.1.2|Decorations through recesses and protrusions in volume (Cladding)

This type of decoration is typically achieved by creating a false façade, where protrusions of various shapes are formed on the building's exterior, often highlighted with a distinct color. This method is considered the most effective way to decorate façades in buildings with spatial constraints. Indeed, we commonly see this decorative approach employed in many apartments, commercial complexes, office buildings, and other structures that face limitations in space for free design [7].

Fig. 2. Volumetric façade ornamentation using recesses and protrusions to enhance spatial aesthetics.

2.1.3 | Decorations through various architectural elements

Another category of architectural ornamentation involves the use of distinct structural elements. These elements serve dual purposes: they carry symbolic meanings while enhancing aesthetic appeal and creating harmony among different building components. When a structure exhibits visual disharmony, the most effective solution often lies in incorporating an appropriate architectural element that establishes visual continuity between disparate sections. Moreover, as these elements inherently draw attention due to their prominent nature, they can effectively divert focus from minor imperfections in the design [7].

Fig. 3. Ornamentation through architectural elements to unify design and enhance visual appeal.

2.1.4 | Decorations through volumetric form

Another type of ornamentation is achieved through the building's volume itself, known as "volumetric decoration." This approach involves the designer creating broken, often diagonal lines that typically move in various directions, forming an inherently beautiful volume [7]. In other words, the volume itself is designed decoratively, stemming from the architect's inspiration—whether drawn from natural or artificial environments. Some of the finest examples of this technique include Sagrada Família (by Spanish architect Antoni Gaudí), Heydar Aliyev Center in Azerbaijan, Galaxy SOHO, the innovative rotating shopping complex in Beijing (designed by Zaha Hadid) [8].

Fig. 4. Volumetric ornamentation where the building's form itself becomes a decorative element.

2.2 | Characteristics of Good and Appropriate Decorations

2.2.1 | Coherence and harmony with the overall structure

Everything achieves coherence by resolving its internal contradictions. If something is at war with itself, it lacks coherence—the more it is free from internal conflicts, the more cohesive, vibrant, and flawless it becomes [9].

Consider the decorations on an old wooden bench—the small carved hearts, the simple holes made when joining the pieces—they feel so natural, as if the bench itself desired them, and the carpenter merely fulfilled its inherent needs [10].

Thus, any system possesses this quality as long as it maintains internal unity; once it falls into disarray, it loses it [11]. Accordingly, architectural decorations must harmonize with the entire structure, becoming an integral part of it, thereby preserving the unity and cohesion of all elements.

2.2.2 | Balance (Avoiding excess or deficiency)

Decorations should be applied in moderation. Underuse results in excessive simplicity, while overuse leads to visual clutter and weariness. Each building, depending on its environment and function, requires a specific measure of ornamentation.

2.2.3 | Proportion

Proportionality in decorations is essential. This applies to both their size and color, ensuring they harmonize with each other and the overall structure.

2.2.4 | Freedom

Freedom arises when we forget entirely ourselves—whether joking among friends or swimming in the sea. It is the only state where we can act in the most meaningful way, unobstructed by hidden fears, laws, or pressures. At such times, we are at our most correct, fair, and vibrant. Similarly, if this quality exists in architecture, we can all recognize it [8].

Decorations, too, appear "right" when they are free—when they become exactly what their intended space demands [2].

3 | Research Background

3.1 | History of Architectural Decorations (Ancient Era)

From the very dawn of civilization, when humans first began constructing buildings, they employed various methods to decorate them. Thus, the history of architectural ornamentation starts with the earliest structures. Primitive decorations were simple and utilized perishable materials due to the limitations of early humans, who lacked sufficient skills, knowledge, and tools. Consequently, many of these early decorations have not survived. Nevertheless, evidence of their use in ancient architecture persists, as we shall explore.

As we know, the ziggurat is among the oldest constructed buildings and the most famous architectural work of Sumer. One of the earliest Sumerian ziggurats is the Anu Ziggurat (Circa 3000–3500 BCE) [12]. The White Temple, the highest point of the Anu Ziggurat, earned its name from the gypsum plaster used on its walls [12]. This naming itself underscores the significance of decorations and their visual impact even in ancient times. The temple's rectangular plan features regular decorative buttresses that lend exceptional beauty to its exterior.

Similarly, the Ziggurat of Ur (Circa 2100 BCE) employed this decorative technique, adorning its surface with systematically arranged buttresses. (The primary construction material of this ziggurat was mudbrick. Since this material lacks aesthetic appeal in both texture and color, its architects embellished the walls with strategically spaced projections and recesses [2].

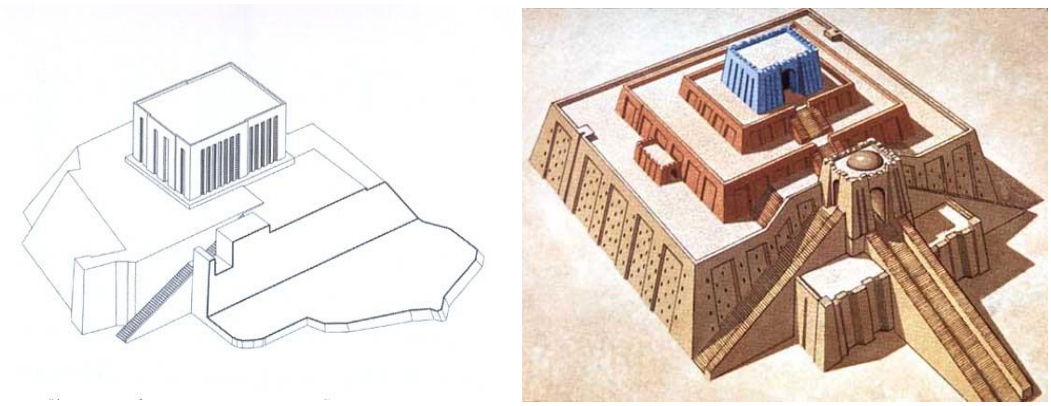


Fig. 5. A view of the Anu Ziggurat and white temple, Uruk period, Sumer, Iraq (3500–3000 BCE).

Ziggurat of Ur

Another notable structure from Mesopotamia featuring remarkable decorations is the Royal Citadel of Sargon II (706-742 BCE) in Khorsabad. The complex's main façade consisted of a massive crenelated wall flanked on either side of its arched gateway by two rectangular towers. The entire perimeter of this wall, including the towers, was covered with glazed tile inscriptions in vibrant colors. The walls lining the gate passageway were also clad with limestone slabs. Among the most significant decorative elements of these gates were the lamassu (Colossal stone sculptures of winged, human-headed bulls) [12].

In Babylon, there existed equally impressive architectural decorations, most notably at the northwestern Ishtar Gate (575 BCE). The most fascinating aspect of the Ishtar Gate was its magnificent ornamentation. All the gate's bricks were glazed and adorned with geometric patterns and reliefs depicting bulls, goats, and dragons [12].

Fig. 6. Reconstructed design of the Ishtar Gate Dur-Sharrukin II (Fortress of Sargon II).

In parallel with Mesopotamia, architectural ornamentation in Iran was also carried out in various forms. For example, in the famous Chogha Zanbil ziggurat (Mid-13th century BCE), we observe decorations similar to those found in the ziggurats of the Mesopotamian region. The exterior façade was decorated with ornamental buttresses and arranged uniformly at regular intervals using bricks [12]. It seems that the Elamites must have used square-shaped glazed turquoise bricks to decorate the temple of this ziggurat, as remnants of such bricks have been abundantly found at the ziggurat site. Apparently, this decorative

method was unique to the Elamites, who were the first to invent the use of glazed bricks for façade decoration in the Middle East [12].

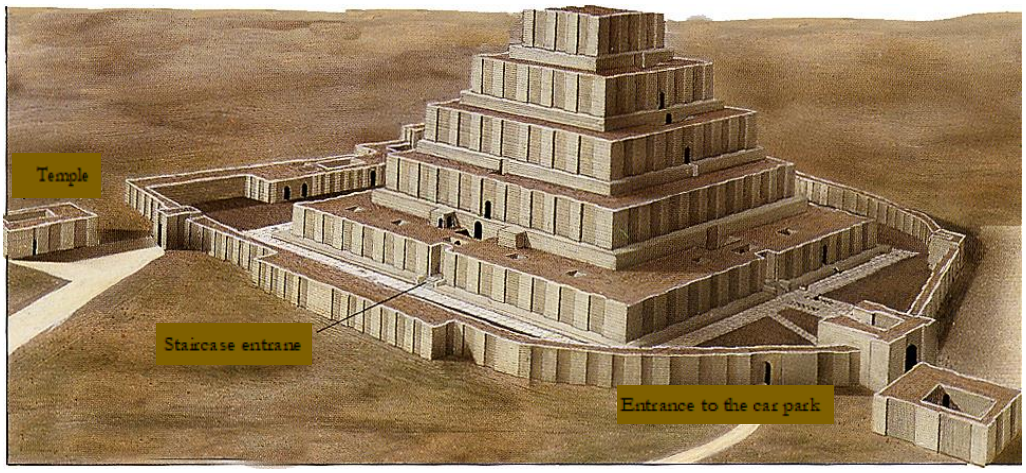


Fig. 7. Chogha Zanbil Ziggurat.

The ancient city of Hagmatana (Ecbatana) also featured remarkable decorative elements. Its walls were crenelated, and these crenellations were painted in white, black, red, blue, orange, silver, and gold [13]. However, the pinnacle of decorative architecture in ancient Iran belongs to the Achaemenid era and Persepolis, whose stone sculptures and bas-reliefs are well known to all Iranians and, therefore, require no further explanation.

A little farther away, in ancient Egypt, architectural ornamentation evolved in various forms over millennia. For instance, mastabas—high, rectangular platforms with sloped sides, which represent the earliest form of Egyptian tombs, were mainly made of mudbrick with a stone veneer [12].

The most significant decorative elements in ancient Egyptian architecture were carved images and hieroglyphic inscriptions [13], including the statues and bas-reliefs that are found in many surviving structures of that era, such as the Temple of Amun (1390–1417 BCE) and the tomb of Ramses (1250 BCE). Additionally, the importance of columns and capitals in Egyptian architecture should not be overlooked. A notable example can be seen in the buildings of Queen Hatshepsut (Ca. 1500 BCE), which, according to some historians, served as a model for the Doric order in Greek architecture [12], as well as in the Temple of Amun (1390–1417 BCE) and the Templ e of Khonsu (1100 BCE).

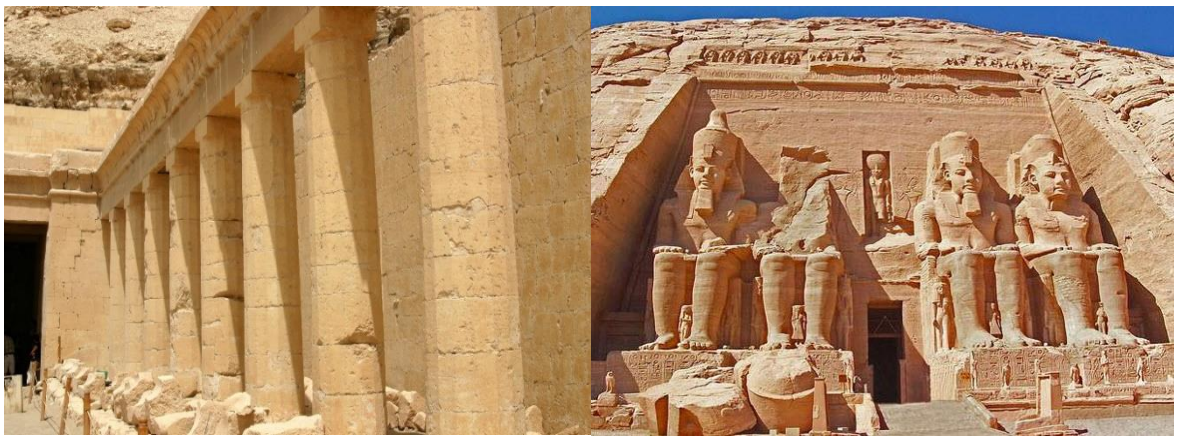


Fig. 8. Temple of Queen Hatshepsut, Tomb of Ramses II.

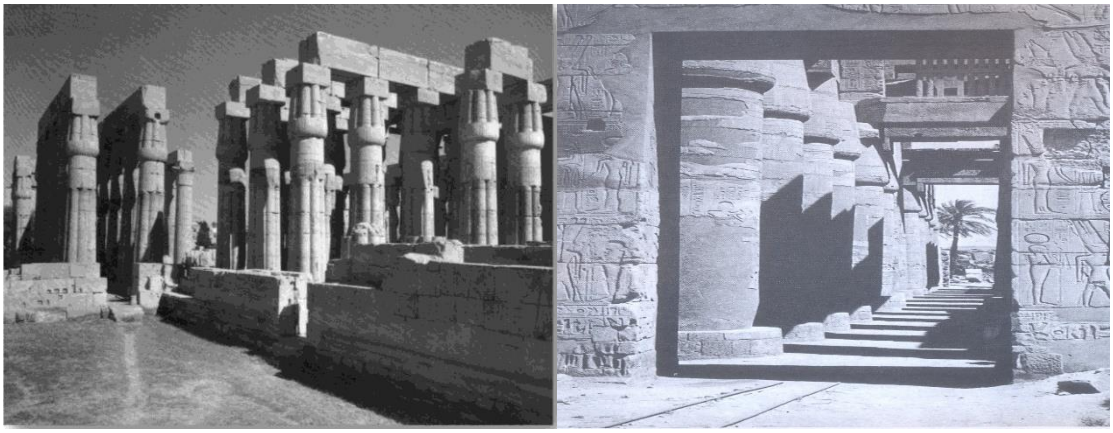


Fig. 9. Hypostyle Hall of the temple of Amun.

Ancient Greece and Rome also had their distinctive decorative styles. A defining feature of Greek decoration—alongside sculptures, reliefs, and ornamental framing—was the use of columns and capitals, which were developed within the framework of the three classical Greek architectural orders: Doric, Ionic, and Corinthian. Numerous examples of such columns, capitals, and other decorative elements can be found in various Greek structures, including the Temple of Artemis (6th century BCE), the Parthenon (447–432 BCE), the Propylaea gateway (437–432 BCE), the Erechtheion—especially the Porch of the Maidens (421–405 BCE)—the Temple of Apollo (420 BCE), and others.

Fig. 10. Temple of Artemis, Parthenon temple.

Fig. 11. Porch of the Maidens, Erechtheion temple, Propylaea Gate.

In Rome, alongside columns and capitals, arches were prominent decorative elements. In other words, the fame of Roman architecture is mainly attributed to the arches they constructed, which not only added structural strength and enabled spatial division but also served a decorative purpose. Additionally, what became known as 'Roman decoration' often featured beautiful forms executed using concrete and stone—reflecting advancements in building materials. One of the most magnificent examples is the Colosseum

amphitheater (72–80 CE), which incorporates a rich combination of columns, capitals, arches, and other elements characteristic of Roman architecture.

Fig. 12. Colosseum amphitheater.

3.2|Ornamentation in the Contemporary Era

During the last two decades of the 19th century, the first examples of modern buildings—free from historicism and ornamentation—were constructed in Chicago, USA [14]. Thus began the era of early modern architecture, with its roots in Chicago in America and cities like Paris, Berlin, and Vienna in Europe [14]. The movement that emerged in the U.S. during this period became known as the Chicago School, where buildings initially lacked any ornamentation. However, over time, limited use of decoration was introduced.

In Europe, the situation was different. Figures like Adolf Loos strongly opposed architectural ornamentation, as seen in his design for the Steiner House in Vienna, which featured no decorative elements at all [14]. In contrast, stood the proponents of the Art Nouveau movement, which was characterized by two main features: The use of modern materials (Like metal) for structural and decorative purposes and the adoption of natural and romantic forms for decoration.

Architects of this style employed modern materials such as cast iron, steel, and concrete, but used natural and plant-like forms to shape both the overall appearance and the details of their buildings [14]. As a result, this style featured excessive ornamentation—possibly leading to later disillusionment with industrial decoration among some architects.

After the phase of early modernism, the era of High Modernism emerged (Mainly in the 1920s and 1930s). Architects such as Walter Gropius, Mies van der Rohe, and Le Corbusier sought to replace traditional aesthetics with technology and functionality as the primary sources of architectural inspiration [14]. Consequently, cube-like buildings made of glass and steel became dominant, with little to no ornamentation.

The only significant decorative style in this period was Art Deco. This movement continued the legacy of Art Nouveau but incorporated abstract motifs or patterns derived from various historical styles. Unlike Art Nouveau, Art Deco also used shiny metal surfaces, merging art with industrial production [14]. The most iconic Art Deco building of the time is the Chrysler Building, whose gray-striped surface, white background, and stainless-steel spire created a multicolored, automobile-inspired modern aesthetic [15].

It is also worth mentioning that organic architecture reached its peak during this period through the work of Frank Lloyd Wright. His Fallingwater House perfectly exemplifies this style and Wright's philosophy. The building is beautifully adorned through its natural forms, the use of raw materials, and the expressive presentation of these materials as they are.

However, in the late modern era, architectural trends shifted once more, and sculptural architecture emerged. Notable examples of this phase include the Guggenheim Museum in New York (Wright), the TWA Flight

Center (Saarinen), and the Sydney Opera House (Utzon)—all of which initiated the use of volumetric and shell-like ornamentation.

Following this era came postmodern architecture, also referred to as popular or eclectic architecture, because it combines styles and elements from various historical periods using diverse materials. Postmodern buildings often feature bold ornamentation, playful forms, and bright, appealing colors [14].

With the rise of High-Tech and Eco-Tech styles, technology once again became central to architecture. In High-Tech architecture, construction processes and internal components are showcased on the building's façade, and the structure itself becomes a decorative element. In Eco-Tech—a more evolved form of High-Tech—the same principles apply, but with an added emphasis on maximizing the use of natural elements. Parallel to Postmodernism, 1980s Britain witnessed a nostalgic return to classical ideals, leading to the emergence of Neoclassicism as a significant architectural trend [13]. This style revived classical forms but integrated modern functions and necessities into the design.

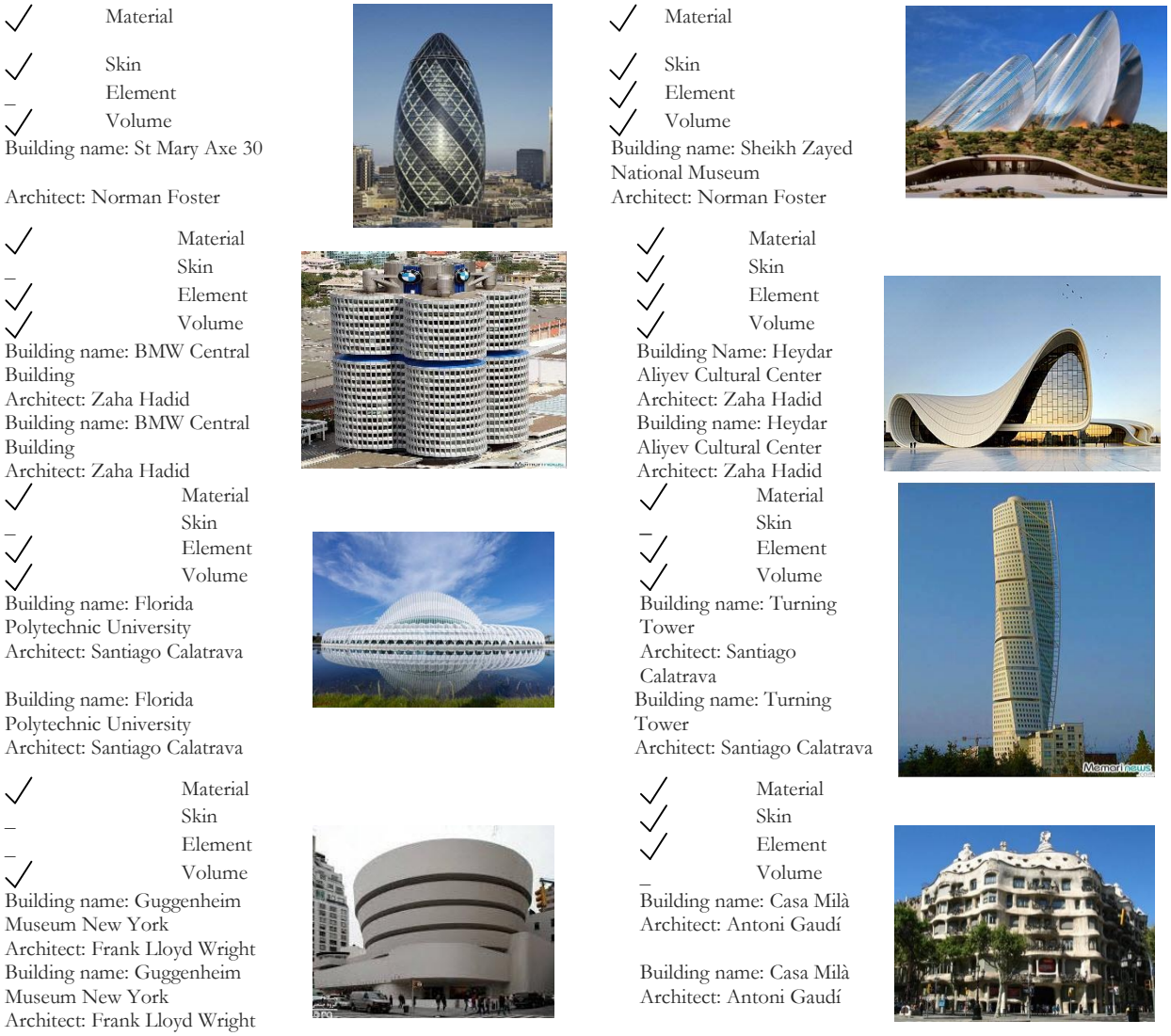


Fig. 13. Analysis of ornamentation features in world-famous buildings.

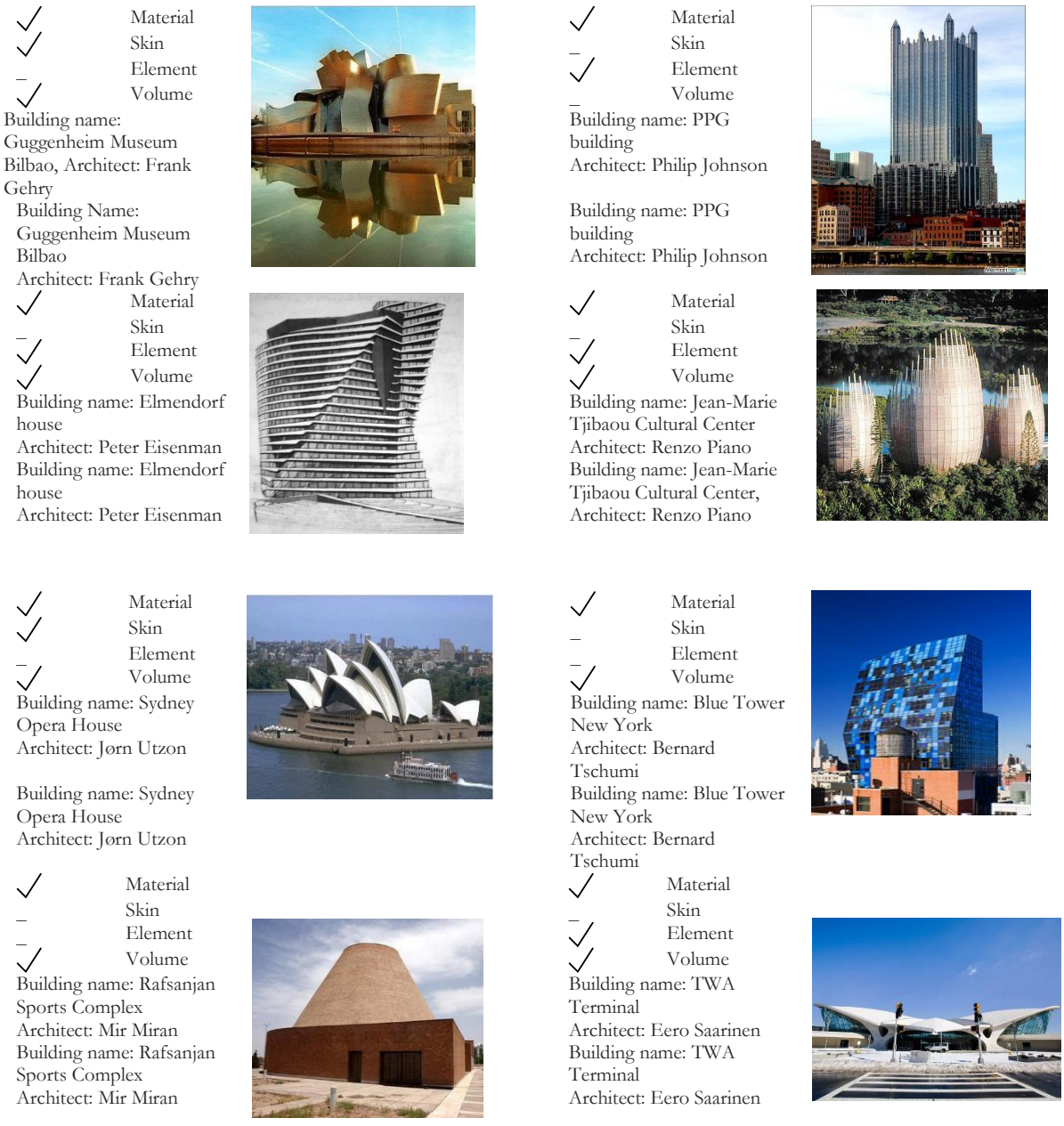


Fig. 14. Analysis of ornamentation features in world-famous buildings.

4.2 | Signs of Ornamentation in Azadi Tower and Reasons for Its Endurance

Undoubtedly, it is hard to find any Iranian who does not recognize the Azadi Tower, and it is well known to many people around the world as well.

This Tower is not only a symbol of the capital of Iran but also a symbol of Iran itself. The importance of this Tower and its surrounding square is such that it marks the final point and gathering place for all the capital's marches.

Designed in 1966 (1345 in the Iranian calendar) and completed by 1971 (1350), this Tower is so beautiful that the passage of time has not diminished its significance even a bit. It can confidently be said that it is one of the most enduring buildings in Iran.

Now, one may ask: what factors have contributed to the fame and lasting presence of Azadi Tower in the public's mind? To answer this question, it is necessary first to examine the architecture of this monument [16].

Since the goal was to design a commemorative building that, besides having unique visual impacts, would evoke the historical, cultural, and artistic heritage of this land and serve as a symbol of Iran's capital, the design carefully and delicately incorporates Iranian and Islamic architectural elements that have both national, historical, and cultural roles as well as decorative and visual functions.

Examples include the symbolic use of a windcatcher (Badgir) at the top of the Tower, tilework, especially the technique of mosaic tile (Kashi m'aragh), the muqarnas (Carbiding) clearly visible on the underside of the arch, and the display of the evolution of the ancient oval arch into the Islamic pointed arch.

The site of the complex is also designed in the form of the "wheel of Meh" (A cross-shaped pattern), a national symbol, and elements of an Iranian garden are fully evident here [17].

Alongside these factors, exceptional and artistic attention has been paid to the visual beauty and ornamentation of the building itself. The cladding material of the Tower's body is white stone, with turquoise-blue grooves that create a visual contrast and add a distinctive beauty.

Additionally, tilework, especially mosaic tiles, is used as part of the materials and covering of the building, adding its unique charm and appearance.

On the other hand, the Iranian and Islamic elements employed have a symbolic and emblematic nature, and their arrangement together is done with such precision and delicacy that it reflects the high taste and skill of its architect, Hossein Amanat.

Another interesting point is that the main functional parts of the building are primarily located 5 to 15 meters below ground level, and what is visible from the outside is mainly the shell of the volume.

This means the upper part of the Tower and the bases of the arches (And, in general, the bases of the Chahartaqi—four-arched pavilion) mainly serve as a shell intended for aesthetic and decorative purposes.

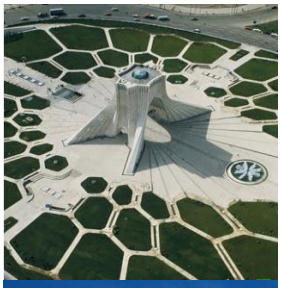
Thus, all these factors, along with the delicate and intelligent overall design—which is a free and modern interpretation of the traditional Chahartaqi—have resulted in the creation of a building with a beautiful and fluid volume that, while contemporary, is rooted in the national elements and culture of Iran.

A building that integrates all four types of ornamentation, relying on local culture in a novel and entirely new manner. This closeness to native culture, despite its modernity, has ensured that this beautiful building is firmly etched in the minds of all Iranians and appears as a symbol of Iranian culture and civilization in a modern form [16].

The following tables, which indicate various parts of Azadi Tower, clearly illustrate the above points.

_ Material
_ Skin
✓ Element
_ Volume
Building name: Azadi Tower
Image title:
East-West View
Building Name: Azadi Tower
Image Title:
East-West view

_ Material
_ Skin
_ Element
✓ Volume
Building name: Azadi Tower
Image title:
3D view (Bird's Eye view)
Building Name: Azadi Tower
Image Title:
3D View (Bird's Eye View)

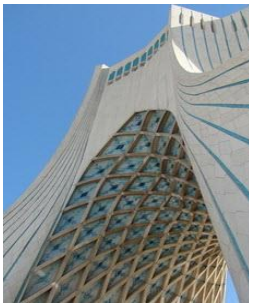


✓ Material
_ Skin
✓ Element
_ Volume
Building name: Azadi Tower
Image title:
Upper part of the Tower

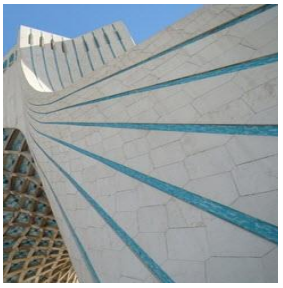
Building Name: Azadi Tower
Image title:
Upper Part of the Tower

_ Material
✓ Skin
_ Element
_ Volume
Building name: Azadi Tower
Image title:
The base of the Tower (Bases)
Building Name: Azadi Tower
Image title: The base of the Tower (Bases)

✓ Material
✓ Skin
_ Element
_ Volume
Building name: Azadi Tower
Image title: Ornamentation using Muqarnas
Building name: Azadi Tower
Image title: Ornamentation using Muqarnas



✓ Material
_ Skin
_ Element
_ Volume
Building name: Azadi Tower
Image title: Body material (Stone and tile)
Building name: Azadi Tower
Image title: Body Material (Stone and tile)



✓ Material
_ Skin
✓ Element
_ Volume
Building name: Azadi Tower
Image title: Symbolic use of the Windcatcher
Building name: Azadi Tower
Image title: Symbolic use of the Windcatcher

_ Material
✓ Skin
✓ Element
_ Volume
Building name: Azadi Tower
Image title: Showing the evolution of the arch
Building name: Azadi Tower
Image title: Showing the Evolution of the Arch

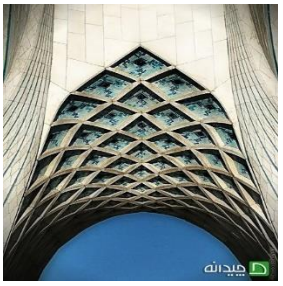


Fig. 15. Examination of ornamentation indicators in the Azadi Tower building.

5 | Findings

By examining the above examples, it becomes clear that decoration through materials, due to being part of the building's surface, is used in all the structures. Following that, volumetric decoration is the most emphasized, indicating the importance of a building's form and massing, as it plays a crucial role in inviting and attracting viewers. Next in importance is the use of elements (Or landmarks), which contribute to enhancing the beauty of the volume. Finally, the building's skin receives attention.

Analyzing these examples helps us gain a better understanding of the different types of decorative strategies used in famous buildings. It allows us to discover the factors behind their lasting appeal—enabling us to create enduring architecture by considering these principles.

In our country, there are also examples of such timeless buildings, perhaps the most famous being the Azadi Tower. Therefore, in the following section, we explore the architecture of this Tower, the decorative elements used in it, and the reasons for its enduring presence.

In Azadi Tower, elemental and material-based decorations are most prominent. Since the Tower is a memorial structure, its function required it to be designed in a symbolic, monumental way.

As a general conclusion, it can be stated that in architectural decoration, environmental conditions (Such as climate and culture) and the function of the building play a fundamental role.

6 | Conclusion

Considering the points discussed and examining architectural works from ancient times to the present, it can be concluded that decoration has been an essential concern for humans since the earliest constructions. Throughout history, people have consistently tried to use all available means and resources to decorate their buildings, as decoration plays a vital role in uplifting the spirit, enhancing well-being, and bringing vitality and joy to human life.

Among architectural works, there are structures that, despite having been built centuries ago, have retained their significance and continue to be admired and respected. One of the key reasons for their lasting appeal is the presence of beautiful and innovative decorations. Decoration enhances beauty, and the human love for beauty is an innate and unchanging trait. Moreover, innovation prevents repetition and staleness.

Therefore, it can be said that appropriate decoration—characterized by four key features—when rooted in local culture and expressed in a novel and contemporary manner that avoids repetition while staying relevant to its time, becomes a significant factor in a building's influence, public acceptance, and enduring presence.

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Data Availability

All data generated or analyzed during this research are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare that there are no competing interests related to the content or publication of this article.

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