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THE INFLUENCE OF CULTURE AND HERITAGE ON ARCHITECTURAL DESIGN

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Abstract

Institute of Najaf Technical, Al-Furat Al-Awsat Technical University, Al-Najaf 31001, Iraq Cultural and historical settings play a significant role in shaping architectural design. This article delves into the relationship between cultural heritage, architecture, and cultural narratives, looking at how physical environments reflect and shape social practices, historical traditions, and cultural practices. The study emphasizes how architects integrate indigenous materials, cultural symbols, and historical allusions into their designs by comparing and contrasting diverse architectural styles and movements across different areas and eras. A hybrid architectural language incorporating multiple cultural aspects is also addressed in the article, delving into the impact of globalization in this regard. Modern design approaches emphasize cultural sustainability and heritage protection, as seen in case studies from the Americas, Europe, Africa, and Asia, demonstrating the interconnected nature of culture, history, and architecture. To promote a more sophisticated and context-sensitive method of design that pays tribute to and breathes new life into cultural heritage, the results stress the significance of cultural literacy in architectural training and practice.

Keywords Cultural heritage, architecture, architectural styles.

INTRODUCTION

The difficulties of designing for a multiethnic society or a location inclusive of different cultures have prompted designers to seek models that can help them comprehend and portray culture in built environments. According to research, cultural factors influence the final layout of various buildings. Designers can use several approaches and concepts to focus on particular multicultural aspects of a space to make it more welcoming and reflective of multicultural values. From the prehistoric eras into the thousands of years that followed, multiculturalism's intricate foundation rests on comprehensive codes. Architectural sociology, art history, archaeology, and restoration and conservation continue to place a premium on

studying these cultural structures as they are embedded in parts of the built environment that have evolved.

(Deci et al., 2019) It is unusual for designers in today's worldwide world to work with a single, homogeneous culture. Even in the most culturally varied locations (like Toronto or London), even when aiming for a particular culture, there is more than one culture. Thousands of smaller communities, each with unique demographics and cultural norms, make up London (Gustafsson & Ripp, 2022). The design of spaces becomes exceedingly complex when intended for an audience with mixed cultural backgrounds or when a society is experiencing change due to the

intermingling and interaction of people from different cultural backgrounds. Heritage reflects a culture in a perpetual state of flux, with historical layers reflecting a sophisticated interest in development and new realities; the subject of cultural and environmental interests, culture takes shape as a whole, including material and intangible values (Ge et al., 2024). The cultural character of the building should be addressed, even though it is challenging to analyze its effects on its durability due to the system's complexity.

Historical Perspective

Even if machinic technologies have a profound impact on the modern form of structures, they also significantly alter their historical context, including visual, auditory, cultural, and social aspects. However, several ethical concerns need to be addressed in broader scientific and legal contexts regarding the use of machine learning and automation in visual representation. These concerns include, but are not limited to, the potential for far-reaching legal consequences and the redefinition of semi-objects' authenticity as they age, depending on the present.

The semi-objects of architecture are buildings, according to various theorists of architecture. These things are considered semi-objects because they exist outside the mind or body but are believed to have been intentionally taken inside as part of the process. In other words, the mutual restraint of free will. This is why examining the goals and limitations that guided its development is essential. However, semi-object studies take a unique approach when it comes to built heritage. We must examine the cultural and economic values that built heritage systems bring to the table and view heritages as semi-objects devoid of present cultural values, seeing them solely as constraints and intentions. Because their consideration is predicated on previous values, this is the case.

Cultural legacy and its significance have developed

through the years (Cudny et al., 2022). Its commercialization is rising within the heritage business and includes physical and immaterial manifestations. There has been a noticeable trend toward more literal visual depictions of cultural and archeological sites, which remain essential in framing these places. Various stakeholders and their ideologies, from anthropocentrism to antiquarianism, have shaped these representations (Arora et al., 2023). As time goes on and more is learned about a site or the overall approach to heritage protection changes, the place's visual representation can also alter. However, as digital representations of heritage technologies, particularly machine learning and human vision technologies, are increasingly shaping these visual representations, this paper investigates how these representations of heritage archaeology are continually reinvented (Zhang et al., 2023).

Cultural Factors Shaping Architectural Design

The wide-span flat roofs with extended overhangs at the eaves are typical in areas with freezing weather and significant snowfall. This greatly enhances the cultural and architectural brilliance of the land's towns and cities. The opposite is true in warmer climates with less precipitation; flat-roof and short-span designs are more popular there. According to Zhang et al. (2023), these climate patches impact an area's architecture, culture, and functioning routines. Timber frames with gable roofs are typical construction methods in areas abundant in wood and other natural resources, including stones, organic matter, and occasionally ceramics. The sustainable modernism of Atelier Deshaus is based on its adherence to traditional ideas, such as using traditional apertures to allow wind from the nearby water to flow through the courtyard and ventilate the house.

A community's cultural and historical context significantly impacts the architectural style and the final product. Construction materials showcase a

wide range of origins and how they express a local culture from all over the globe, from Southeast Asia to North Africa and beyond. The building's shape and architectural style are significantly impacted by climate and geological resources that serve as antecedents to the synthesized materials through an inclusive cultural amalgamation (Ge et al., 2024).

Professionals in the field of architecture require an understanding of and respect for cultural traditions in order to build and improve built environments. Put another way, a neighborhood or city's architectural style—and, by extension, the globe— is strongly influenced by its history and culture. Culture refers to the ever-present social impact, while heritage refers to a society's valued traditions, rituals, and standards typically carried down through generations.

Traditional Building Techniques

Traditional architecture's design and construction methods reflect not only the local social, cultural, and ecological context of that time but also the people's thinking, resource management, and technological abilities. This makes them a valuable part of the historical record. The dematerialization cycles of traditional artistry were very clean because most of it was handmade and could be easily disassembled and repurposed once its useful life had ended. Passive cooling, the practice of reducing the temperature of indoor rooms without mechanical cooling systems, has been around for thousands of years, providing everyday climatic comfort in hot climates. The Terrez method is one of the old passive cooling approaches; it kept inside at a tolerable temperature without technical help, leading to important discoveries in passive design strategies.

Traditional building methods greatly valued comfort, social cohesiveness, and a feeling of cultural rootedness in many locations (Ma et al., 2023). First, we will look back at more

conventional construction methods, paying particular attention to the tactics that shaped how things were structured and how people interacted with them. Individuals' social, cultural, and material circumstances were always considered when using traditional building techniques. For instance, in hot and dry areas, classic architecture of various cultures included substantial sun-shielding components. This shielded the wearer from the scorching sun and promoted air circulation. Wei et al. (2018) also noted that the inside space's character and layout were controlled by solar shadowing. Deep floating eaves and enclosed louvers were typical methods for traditional Chinese towns to block the sun's rays while allowing for expansive shady openings (Niu & Li, 2022).

Symbolism in Architecture

The designers and architects are guided by the local community's adopted traits, reflected in the architectural arrangement introduced by these contextual and intended features. The pace may be reflected in its arrangement, which lacks a formal entrance, excludes the function of some rooms, and is expressive on the outside elevation. The local elements that users need for their design primarily provide the materials, textures, forms, components, and light in buildings. Attaching locally created goods to buildings primarily protects them and the local livelihood and economy. These symbolic meanings guarantee that the intended message will be transmitted to the users in a contextually appropriate way and directly reflect indigenous practices, traditions, and lifestyles.

Nevertheless, household architecture can reveal the traits and customs of all merchants and traders who frequently visit other towns. A motif from local Islamic and Moghul architecture, depicted in "Domed Architecture Punjab" in the shape of a charbagh—a living courtyard with long-lasting flat

terraces—is a metaphor for orchards and gardens (Fig. 12). Thanks to these features, the building can serve as a sustainable directory and, in doing so, become an embroidered legend of the past. The architectural wheel begins with the transfer of oral traditions, the voices of ancestors, and tales from local history. It continues with arguments and concrete activities involving the interpretation of past etiquette and history. In social and cultural contexts, architecture is a platform for visitors to learn about the culture and reconcile with their surroundings. It plays a key role in cultural transmission. A building's design plays a crucial role in building local memory and culture while protecting a particular area's societal values and character. Architectural works that go beyond simply endowing a particular community with special rights allow members of other communities to celebrate their own unique identity. Preserving the aforementioned local culture is an essential architectural function since different architectural features tell stories about the evolution of a culture and its physical location.

Since the Egyptians built pyramids to honor their virtuous pharaohs and gods, symbolism—using signs, similes, or pictures to represent concepts or traits—has developed. Architects use models and sketches as forms of symbolic representation to convey the ideas and desires of clients and the general public. (The study conducted by Balehrizi and colleagues in 2013) The architectural depictions of cultural components stand out among the many forms of symbolism. We call "culture" a collection of passed-down norms and customs, including ways of life, ethics, mythology, religious beliefs and practices, and language expressions. However, these explanations result from a community's intricate web of interrelated actions and behaviors. The built environment is a window into a culture's values and norms and a record of those values and norms over time. Local characteristics seen in mosques, temples,

residential buildings, and other types of architecture provide light on the history and culture of the area. Workers from different places depict the same theme or subject differently due to the regionally embedded content (symbolic representation) of architecture. In addition to the built environment, communities can derive value from architecture incorporating deeply ingrained cultural features.

Religious Influences

There are many shapes that religious ideals and beliefs can take. Many communities' core values and beliefs originate in religious texts or stories. Sculpture and architecture in religiously inspired design highlight and perpetuate these principles and convictions. By staying true to their roots and teachings, religiously inspired designs often use abstract symbols, colors, fonts, and geometrical features. Societies that did not practice religion did not create geometry. Roman, Greek, and Egyptian architecture all provide numerous instances of the geometric tolerance that has long been a symbol of these civilizations' ideals (Fattahi et al., 2022).

The Incas, the Assyrians, and the ancient Egyptians all built temples on a purely intellectual level. The idea that temples could serve as permanent residences for gods led to the development of models for artificial houses. During the era of polytheism in ancient Greece, temples were built to display architectural redemption in the hereafter. Chinese and Japanese temple designs developed in nations where Buddhist beliefs strongly adhere to sect-based construction order and courtyard-building interactions strike attention (Jyoti Paul et al., 2021). In particular, the importance of achieving harmony with natural components has perpetually outweighed that of embellishment in sculpture. The roofs of ceramic constructions styled like domes or mountains stand in for paradise. Although there are distinctions, many cultures, and worldviews sought to build a place of

worship and community that would meet their spiritual requirements through design.

The impact of religion on building design has always been substantial and noticeable. Architects' attempts to incorporate their spiritual beliefs into their built environments have evolved across faiths and cultures (Wang et al., 2022). This has allowed various architectural and art styles to develop over time, reflecting the needs of different cultures and their respective religious practices, rituals, and funeral rites. These distinctions are evident in every culture, from those in the Far East to those in Latin America.

Socioeconomic Factors

The fact that artificial environments can serve as better mirrors, verifiers, and facilitators of individual practices has long been recognized and investigated. It was previously thought that other firms' areas included such companies' operations. The deed of Vandenberg Hall, a Stanford University building dedicated to studying the recently discovered lunar elements, was delivered on campus by the National Aeronautics and Space Administration (NASA). In the same way that NASA intended Vandenberg Hall to function as a symbol, they also wanted it to elicit a response from those who lived and worked there.

Culture and heritage were merged into one concept for a few decades after WWII. 'Folk Culture' was the sole famous phrase for appreciating a people's history or discovering one's family tree back then. In modern times, the term "culture" encompasses a broad spectrum of human actions linked to historical artifacts, including but not limited to tangible objects, religious practices, built environments, social structures, and the visual arts. Luis Higuera-Trujillo et al. (2021) state that culture encompasses a great deal within numerous countries, including ethnic affiliation, societal stability, and individual style. Originally intended to encompass structures' functional, conceptual,

aesthetic, and technological aspects, architecture now encompasses all artificial environments like buildings, streets, and cities.

Architectural design professionals have been called upon to address several social concerns. Among all these concepts introduced throughout the last three decades, the idea of culture has had the most impact on our mutual comprehension and design practices (Wu et al., 2021). Over several centuries, both print and digital media have covered cultural topics in sociology (Rousi, 2023).

Environmental Considerations

Consistent with Islamic ethics, which emphasize spiritual and environmental responsibility, are natural buildings that function with the flow of resources around them in interconnected synergistic cycles of water, nutrients, energy, and microclimate, with effective waste disposal and a minimized ecological and energy footprint (Wang, 2022). Historic building typologies can be reclaimed for their natural benefits through architectural solutions that use modern building performance science for built form and components that promise the reduction of local environmental challenges. Many of the United Arab Emirates' climate-adaptive buildings are significant cultural assets that help build a flourishing civilization, even though they are not considered heritage according to the World Heritage Convention. Such assets range from whole towns or citadels fortified by towers or urban walls and a plethora of interconnected public buildings and spaces to specific building complexes or ensembles or even individual elements or artifacts like mountain buildings with corbelled khaimah roofs or wind-catchers in both urban and rural settings.

According to Wu et al. (2021), architects should think about the environment comprehensively, considering the physical aspects and the cultural and social variety. The United Arab Emirates (UAE)

is just one of several fast-growing cities around the globe that could feel the effects of technological and economic shifts disrupting the delicate equilibrium between human needs and natural resources. This could affect everything from water and waste management to air pollution. Furthermore, in natural systems, pricing structures do not accurately reflect the entire cost of building such infrastructure (Shublaq et al., 2021). The ecological collapse that would result from externalizing the cost of such a framework would lead company costs to climb rapidly. Thus, environmental sustainability should guide economic and technical progress. Here, we have a complex problem where localized, narrow-minded interpretations of enlightened self-interest complicate matters.

Case Studies

As an example of Iranian modernization, the fourth case study looks at the 150-year architectural history of Tehran. A different form of modernism could exist there, according to the case study, which aims to think more historically. This chronology paints a picture of contrasting architectural styles from the Qajar era to the Pahlavi era. Additionally, the houses range in size and style from various city sections. They also tried suggested that we should reevaluate the conventional house; perhaps we should avoid thinking in terms of the past and instead focus on the present by imagining continuity in these structures. The final case study looks at how China came up with new gridshells. Examining the intricate balance of cross-cultural design in engineering, architecture, and art, it seeks to understand the evolution of grid shell design by looking at its cultural and architectural consequences. Using wood in large-span gridshells for cultural or recreational purposes prompts a reexamination of the technical and cultural history of bamboo and wood applications, which have long found an outlet in the architectural style of China

from antiquity to the present day. Because some of the traditional houses and palaces of Saudi Arabia's southern region, Asir Province, have survived and are still in use, while others have fallen into disrepair and are now museums, this last case study aims to highlight their most distinctive features (W. Tigwell et al., 2021). Accommodation features, modes of use, building techniques, environmental relationships, and building materials are all explored, as are the settlement structures and traditional dwellings of Asir. Environmental, historical, settlement, and social factors are all considered, as are the spatial and functional characteristics of traditional Asir dwellings.

Case examples illustrating how cultural and historical factors impact building design are presented in this section of Chapter 6 (Vuong et al., 2019). The first case study shows how the Dutch practice vernacular architecture to design eco-friendly structures. The Dutch have been ahead of the curve in a few areas, and the most recent innovations in trendiness reveal the growth of experimental, inventive, and practical residential areas, dubbed "eco-town shows continuing development of this style." Source: Trans, 1974. As an example of Iranian architecture that seeks to creatively and popularly convey the Islamic tradition, the Hoseiniyeh Ershad is analyzed in the second case study. In the third case study, we look at the modern-day Doha Museum of Islamic Art. Since the nation did not have a history of Islamic museums, the museum's design posed a challenge to local traditions. Based on a grammar of conventional techniques colored by local conceptions of beauty and adoration, the museum's façade, offered a positive proposition, despite some limits in their design and implementation (Gustafsson & Ripp, 2022).

Ancient Greek Architecture

According to Ward-Perkins, buildings designed in

the style of the neoclassical temple, which was popular among the wealthy elite, started appearing in posh neighborhoods and rich periphery around 1850. At the same time, Victorian architects in Spitalfields were experimenting with delicate Greek elements popularized by these chic showcases by the 1870s. At this point, the West Ward-Perkins entered its last stage of Greek architecture. In particular, Bluestone finds that Greek architecture is generally considered to be one of the last stages of ancient architecture's development; as a result, it provided a unique and unparalleled answer to the dilemmas faced by contemporary people in their quest to find meaning in an increasingly secular and technologically advanced way of life (Zacharopoulou, 2021).

The dominance and influence of the ancient Greek Empire meant that the styles of ancient Greek architecture were popular in the 19th and 20th centuries. As a result, they influenced numerous civilizations around the world. Cities worldwide, from Sidney, New Orleans, and New York in the US to Paris, the capital of France, and many more, have preserved ancient Greek architecture. This information is sourced from Zhang et al. (2023).

Temples, tombs, archaic sculptures and pottery, and people's residences all included the architecture, design, and art of Ancient Greece. Ancient Greek buildings were held in high esteem for a long time, even before the Romans made their mark. It would be a stretch to say that modern architecture is entirely devoid of ancient Greek influences; instead, they can be seen in countless modern structures across the globe. It has been substantial and spans thousands of years; as Manslayer notes, "The influence of Greek architecture in various cultures around the world." The question, therefore, becomes, how precisely has Greek architecture been impacted by various cultures across the globe? (Young, 2022).

Gothic Architecture in Europe

Gothic flourishes to its fullest extent in certain areas, where columns and archivolt adorned with modifying motifs encircle structural and decorative elements and a succession of narrower, crocketed shafts encircles piers. The fast expansion of Gothic architecture after 1170 was puzzling. However, according to some historians, it reflected new cultural polarities that existed at the time, one originating from agricultural regions and the other from large, export-oriented business centers like Barcelona and Marseilles. As a result, Gothic styles near these centers were thought to represent a particularly radical departure from previous building practices (Sundnes Løvlie et al., 2021). Since the Catholic Church was dominant in most places, it was forbidden to highlight syncretic religious motifs over purely theological or iconographical ones. Therefore, cultural casting had to happen very narrowly, at the level of individual structures. The variances in Gothic architecture are often associated with divisions in authority, such as parishes and what may be considered provincial domains of specialization. Scandinavian art sets a high standard since it largely maintained its Romanesque style even after the Gothic buildings became fashionable in Western Europe.

Historians in the 18th century used the term "Gothic" to describe the type of architecture that sprang from the Romanesque but quickly became more elaborate and intricate, suggesting strangeness and wildness in both spirit and specific performance (M. Hein, 2020). Like Romanesque, Gothic eventually became the dominant style in Europe. Different regions of the world's architecture also had their quirks: the Ile de France and northern France were known for their colossal magnificence and balanced ribbed vaults, while the Midlands and northern England were known for their slender arcade piers, which gave buildings a

sense of height, and southern Spain and southern France were known for the plainness that Gothic architecture gained from contact with Romanesque (Bianco, 2021). Also, the Latin Empire of Constantinople had some quite ornate plans.

Islamic Architecture

The Great Mosque of Cordova, in Cordova in Andalus Southern Spain, was established by the Umayyads and is one of the most renowned and revered Islamic architectural landmarks. Initially a modest Christian church, the post-8th-center-plaque mosque/cathedral displays multiple alterations in multi-block architecture while preserving comparable architectural symmetries. The addition of Islamic capitals to Roman capitals in the Ionic, Doric, and Purlic styles and the structural disruption caused by the double leplat give evidence of Muslim influence. Because of its multi-directional design and international influence, this mosque/cathedral's development spanned decades.

Laos lays the groundwork for Islamic architecture that could incorporate Romanesque elements. The Spanish islands of Cordova and Grenada are strongly linked to Moorish architecture and style. There is some evidence that Islamic architecture could benefit from the pato-style layouts popular in the Christian Renaissance. This only style of Islamic architecture emerged during the early Umayyad era; it resembles the floor plan of early Christian bartusi design and features external walls, hips, arches, and piers, and it faces the church of St. Eulalie with numerous parallel rows of columns, an arch, and a barrel vault. Regardless, the church in Toledo is a popular stylistic reference for baggage.

Islamic architecture, which encompasses the design of buildings, parks, and urban development, was shaped by the house of Prophet Mohammad, succeeding leaders of Islamic governments, and devout mosquegoers when Islam came into being (Sadegh et al., 2022). Modern audiences continue

to recognize Islamic architecture's lasting impact, combining Islamic principles with traditional building techniques (Jiang & Lin, 2022). By the verus of the Quran, Islamic architecture is designed by the juz of the Quran that deals with man's nature-based imperative (Shublaq et al., 2021).

Colonial Architecture in the Americas

Japanese, Rococo, Gothic, and Egyptian art forms were among the many foreign traditions brought to the Americas during colonialism, albeit they were mostly ignored during that time. Spanish and Portuguese styles were the most common for churches, and older colonies either consumed or simplified these elaborate structures to their most functional grandeur. The metal and stone artistry brought to the region during colonization greatly enhanced Latin American architecture. Because of the Andes Mountains and other geographical factors, the Americas are very different in temperature, building materials, and topography. Latin America is no exception. Colonial architecture was distinctively comprised of these components when colonial states were established.

Gothic (c. 1300–1600), Mudejar (c. 1200–1750), Byzantine, and Romanesque were some of the significant styles that impacted American colonial architecture (Vuong et al., 2019). The Islamic tradition played a significant role in shaping the Mudejar building style. Since Islamic law forbids the ornamentation of some parts of religious buildings, the Islamic conquerors would adorn internal walls with tile and roofs with loads, which are pointed stalks of tile that line a roof (Sundnes Løvlie et al., 2021). The dominant architectural styles that emerged as a result of local reactions to these styles included a domicile rhythm, a move toward double walls around the property's perimeter, and housing architecture that reflected the autonomy of newly independent nations as a result of political reforms and national governments following the end of colonization or

foreign rule. The affluent locals imitated the features of this collection of styles—like tile roofs and "white paint and elegant balconies"—influenced by European architecture to show their ambition and riches.

Modernist Architecture

As mentioned, building materials that resemble bricks, stone, or wood have played a significant role in construction for a long time. On the other hand, modern concrete was a game-changer in the modernist movement, enabling a wide range of expressive formal possibilities. In the time after, other groundbreaking developments in concrete construction, including the Canberra, showcased the material's potential and emphasized form. Reinterpretations in the latter part of the last century allowed the style, thriving in various contexts across diverse cultures and geographies, to continue existing. It is crucial to planning modernist-era architectural features, preserving their nuances, and assessing them as cultural and creative products.

As a result, the city's visual quality and the remarkable history of the last two centuries comparable to ours have been severed by the modernist style, which architects and architectural historians despise. When it comes to preserving cultural heritage, the construction industry plays a key role, particularly in metropolitan settings. According to the authors (M. et al., 2023), one approach to heritage preservation is to use historic materials and details while retaining the building's original form and function. However, the historic loss problem in urban and non-urban settings can be managed, and resources can be maximized through the open and methodical application of modernist architectural components at appropriate sites and periods.

It soon became apparent that only some metropolitan settings or climates were well-suited to the modernist style of architecture as it evolved.

As the author pointed out (Lanci, 2013), mechanical systems play a significant role while focusing mainly on the building's front, courtyard, and other non-functional components. Consequently, it has received a great deal of criticism. Worries over the inefficient use of Earth's finite natural resources are also rising. People could use many materials and natural resources quickly and inefficiently because of the industrial revolution that started in the 1800s. Conversely, as stated by (Haile et al., 2022), the decline of cultural memory is exacerbated by substituting artificial and industrialized goods for natural ones, leading to the loss of traditional knowledge and practices.

Preservation and Conservation of Cultural Heritage

Cultural heritages sustain and protect the continuity of identity and lineage. An integrated strategy is required to preserve cultural heritage in light of the many factors and the changing status of metropolitan regions and populations. Urban cultural heritage aims to unite and strengthen social bonds among city dwellers. Like outdoor museums, they shape a city's character while providing a holistic view of the area, expressing its collective memory, and establishing meeting spots for discussing the past, present, and future. The cultural, social, and economic benefits that accrue from legacy investments have a multiplicative effect on the value that other cities, communities, and socioeconomic groups reap.

Recognizing the rich variety of our past allows us better to comprehend the many different groups and the cultural traditions passed down through them. This comprehension necessitates an all-encompassing strategy incorporating the local landscape and community history. Design and development in urban areas should adhere to physical patterns, structure, architectural heritage, traditional dwellings, urban streets, and parks to develop them according to their history and

cultural heritage (Barbati et al., 2018).

A growing body of research has shown that intangible and tangible cultural heritage aspects are equally crucial to the growth of cities, urban settings, and communities, serving as both a resource for progress and a means of self-expression [17]. Historic Landmark recognition and physical component conservation are thus common goals of heritage regulations and policies (Shublaq et al., 2021). Otero (2021) argues that, despite their differences, traditional urban areas and historic cities face continued danger from modernist social value-based, broadly-based laws and definitions.

Architectural Heritage Sites

Cultural artifacts hold immense spiritual, historical, cultural, and monetary value, and they also serve as a vital link for indigenous people to their ancestry (Sadegh et al. Del et al., 2022).

There are four main categories of cultural artifacts: intangible, constructed, natural, and world heritage. Heritage sites can also include infrastructures designed by architects and planners as long as they are significant culturally and historically. Museum experts agree that a heritage site is more than just a piece of art; it also represents the indigenous peoples' collective memory of a given time and place. It is a vital part of cultural variety and society's growth, and it also serves as a cultural and informational resource that encourages distinctive traits and the improvement of collective memory. These perspectives align with the ethical obligation to safeguard cultural artifacts for future generations, which is particularly pressing in an era when communal morality and ethics are shifting, and societies are straying from their original principles, practices, and ways of life.

Various architectural styles, designs, decorations, and material processes contribute to a city's

character (Wang, 2022). Heritage sites are more than tourist attractions; they are repositories of invaluable indigenous knowledge and history. So, due to their significance, they are the unique aspects of indigenous culture that have been celebrated and discussed for generations. However, these features will gradually disappear as architecture becomes more diverse (M. et al., 2023). There are several nations where these locations dire need repair facilities but also have room to grow.

Restoration Techniques

Historic buildings require special attention during restoration to ensure that the original, historically built materials, applied using time-honored methods, retain their enduring beauty and function as intended. It calls for meticulous preparation, familiarity with the current structures' sizes and operations, and a keen eye for the methods that have helped solve construction issues. 'The building secrets' can be uncovered by studying old buildings with attention, which often reveals the materials' inherent qualities and how they were constructed. Such examination also sheds insight into the building's history, innovations, and interventions. Minimal interference and the pursuit of the Board's purpose form the basis of optimal conservation; optimum conservation strategies are developed through the widespread sharing of know-how for all local materials and traditional techniques. The expert builds partnerships with people with traditional and local knowledge, skills, and resources and steps in when necessary and practical. An investigation of methods of conservation that draw on time-tested expertise, tools, and supplies to direct ongoing upkeep and preservation. Enhancing the function and condition of buildings by interventions grounded in traditional local technology, materials, and knowledge not only transmits local culture and traditions but also awakens society to the need for

territorial custodianship and historical valuation.

During restoration, interventions are made to prevent further deterioration of historic structures, mitigate existing deterioration, and make them safe to occupy without significant structural changes (Gustafsson & Ripp, 2022). Building preservation, historical artifact preservation, and avoiding the loss of one-of-a-kind artifacts are all primary goals of the procedure. However, due to the ever-changing nature of society, old buildings need to be repurposed to keep existing and adapt to the modern world (Sadegh et al. Del et al., 2021). Sustainable development through adaptive reuse of historic structures is at the heart of restoration strategies (Wang, 2022).

Challenges in Preservation

Cultural heritage encompasses both the tangible manifestations of culture and the fundamental circumstances that permit the preservation of cultural artifacts over generations. Societal constructs, including but not limited to institutions and structures, modes of communication, belief systems, customs and traditions, and geographical areas, make up a people's way of life. The following is a summary of the primary goal of conservation efforts: To ensure that future generations can inherit works that reflect the building methods and materials used in bygone cultural periods, it is necessary to preserve these artifacts.

By preserving the building as it is and refusing to let it alter, we can see its undisturbed past preserved for future generations. Restoring a building within its original bounds helps to guarantee that it serves its intended function as it did when it was constructed. It preserves and reuses the original building materials to the greatest extent possible while making room for modern technology. Through revision, the original structure can be drastically altered to meet modern requirements. According to Haile et al. (2022), the

goal is to uncover different tables that have been made, destroyed, or repaired over time, which will expose layers of time.

In order to create and maintain building adjustments that are in harmony with culture and heritage, architects and other architecture experts play a crucial role (Arvanitis, 2021). To improve the aesthetic quality of living space, it is vital to solve problems through social engagement, respect for property, research, and innovation in this field. The foundation of any society's historical, ecological, and cultural accumulation is its heritage, passed down from generation to generation. Zacharopoulou (2021) argues that a global perspective and an interdisciplinary approach are necessary for comprehending the dimension of heritage and its conservation.

Contemporary Approaches to Incorporating Culture and Heritage

By incorporating new cultural practices, each culture influences and adapts to the other. Therefore, it is critical to honor the traditions of all cultures through the values and practices that are unique to them. It is impossible to distinguish between culture and architecture because of the deep, existential relationship between the two. Click on the mouse.

Architectural education should include research into the curriculum and current methods for integrating cultural and historical elements into building designs, and it should foster an environment where students can hone their professional knowledge, creativity, and communication abilities, among other things. As a field that reflects the global world in all its social, economic, political, technical, and moral complexity, architecture education has taken place against the backdrop of dramatic shifts in the last several decades. To illustrate the point, there is a global push to alter production methods, decrease emissions of greenhouse gases, control global

warming, and prepare for a more sustainable future; this is happening simultaneously as urbanization is rising, as is neoliberalism and cross-cultural communication.

Due to the growing influence of globalization, there has been a dramatic shift in recent decades in the style of modern architecture and methods used to include cultural and historical elements in its designs (Consigliari & Consigliari, 2013). A higher understanding and appreciation of architectural styles, behaviors, livelihoods, and numerous other regionally-based characteristics of human variation have been brought about by globalization, which has also enhanced cultural contact (Sundnes Løvlie et al., 2021). Another way of looking at it is by highlighting the significance of place; heritage is typically situated within the context of place and belonging. At the same time, discussions in architecture have shifted their focus away from the dominant twentieth-century narratives, which focused on either growth or collapse, disaster or progress, globalization or localization. Like the political science community, the field of architectural studies is currently reevaluating its critical theory framework and its own ethical and political stances. In all European Union (EU) member states, architectural schools and, more specifically, the architectural brief play a significant role in contemporary university and professional training programs.

Adaptive Reuse of Historic Buildings

The best way to preserve historic buildings' impact while reducing the likelihood of demolition is to find new uses for them. LeInsider (Rapaport, 2008) stresses the need to reuse and renew old structures using modern techniques and concepts if they are to last for more than 200 years. Heritage sites must be revitalized by socially meaningful measures before they can be reused, according to Stojanovi et al. (2013). In order to preserve and enhance historic locations responsively, it is essential to

adopt modern idioms and procedures, argues Bulduk and Arslan (2014). The historic building's physical value can better engage with its social virtues, leading to proposals for new roles or uses. According to Bulduk and Arslan (2014), there are several effective ways to collaborate with local properties to provide the necessary funds and personnel for the adaptive reuse of historic structures. These include tourism, commerce, private ownership, volunteering, and management (Zacharopoulou, 2021).

According to Zacharopoulou (2017), the social sciences, architecture, and tourism are all potentially involved in the adaptive reuse process of old buildings. Buildings with architectural and sociocultural value can be repurposed in various ways, depending on how well their cultural, artistic, and historical components have been preserved (M. et al., 2023). Although some scholars, like McDonald and Rush, emphasize the artistic and historical dimensions of adaptive reuse, others emphasize the demographic and social ones. The emotional connection evoked by a historic building's direct connection to its past makes it suitable for reuse. Renovating a building's historic, social, and cultural features creatively and conservatively can increase their worth and make them a more integral part of the cityscape. However, new users, communities, and investors may reject a site due to its poorly preserved history, sometimes resulting from lousy administration.

Cultural Centers and Museums

Our current priorities are improving the museum's exhibits, interactive gadgets, and organizational processes to boost visitor involvement. What we found and how we linked data to ideas (the gadget and the social interactions happening in real-time), Ladygin and colleagues, yes. In addition to the results, it is essential to be contextually connected with the broader museum's collection of

interactive displays. According to Garzotto et al., "tangible interaction" works best when it is formed into "loosely-coupled installations" consisting of numerous interactive exhibits. This contrasts the "single digital-outlier" that Zucker et al. have addressed. It was decided to keep visitors at a safe distance here for several reasons. One of them is that the actual room might already be packed with all the interactive equipment. For instance, there could be numerous exhibitions in the exact location. One possible follow-up is a system that uses geographical analytics to showcase a "rent-a-device" service driven by user requests, facilitating more accessible access to social experiences across devices. However, when we go over the present state of loosely federated installations, scheduling such shows becomes a complicated issue.

A marriage of interaction technology within the physical space might alleviate challenges associated with digitizing cultural assets, especially for museums, as proposed by Schwartz (Muxoll et al., 2020). Using these digital technologies as agents for interactive museums could solve the time and travel limits that prevent people from physically visiting museums. This would allow distant visitors to engage with physical displays more naturally. Levy et al. (Arora et al., 2023) discussed Museums and technological interaction and emphasized the importance of user research in a natural environment to develop interactive displays that visitors would find interesting and engaging. The goal here is to encourage participation with the exhibits as an integral aspect of the museum installation experience, simulating an actual museum setting with the added complexities of tracking the movements of visitors and exhibits and the relative lack of connectivity between the physical and virtual worlds.

Public Art and Sculptures

Many people and groups may assign different interpretations to public art and sculpture

displayed in public spaces. Communities' cultural origins, as well as their history and heritage, can be reflected in public sculpture and art. Cultural and historic preservation and the stated goals and intended use should be central to the decision-making process for public sculpture and art. Sculpture and public art have the power to embody the values, beliefs, traditions, and heritage of the people who create them (Huang & C. S. Liem, 2022). Public sculpture and art can serve as a platform for shared ideals in a public setting, fostering development, cultural enrichment, and intellectual capacity. Sculpture and public art can serve as both a community gathering place and a means of preserving our rich cultural legacy.

Zacharopoulou (2021) argues that public sculpture and art are integral to any city. Since public art improves the surrounding environment by making it more appealing, welcoming, and enriching people's quality of life, planners, architects, and others who oversee the construction of a place should consider its aesthetic importance. People of many backgrounds and origins can come together in public sculpture and art installations to celebrate and learn from one another's cultural practices. Public spaces allow individuals of many cultural backgrounds to interact through the universal language of art, according to research by Gertrude Hurwitz (1992).

Works of art that are shown or placed in public spaces where anybody can see them are known as public art and sculpture. Works of art can range in size from very small to very large, and they can be constructed from a wide variety of materials, including but not limited to metal, wood, ceramics, glass, and so on (Di, 2022). It could be realistic and depict real people or abstract and consist of geometric shapes. The subject matter of public art can range from depictions of historical figures or locations to more abstract representations of landscapes or natural settings. Indoor or outside,

interactive or not, public art can have a short lifespan.

Sustainable Design and Cultural Identity

Regarding sustainability, there is a tense dynamic between local environmental needs and universal social norms. Cultural identity can be defined as the as-if results generated by the representation process in time, which includes a sense of location, local memory, and environmental knowledge. The relational nature of it makes it interested in the symmetry and tension that arises from the interplay of material and immaterial things, as well as the local and the global. Identity as a fully integrative notion defends the variety of the individual groups living at a manifold, and cultural identity can be cracked open to multiple identities based on the relations themselves.

Sustainable design is the main criterion for determining what can be modified and what cannot. The term "sustainable design" is meant to imply a space bounded by human values and composed of non-human elements; it draws on religious, ecological, technological, and scientific domains (Wu et al., 2021). Contextual and intuitive solutions that arise from traditional and imaginative resources avoiding colonial forms and procedures, are necessary for crisis survival. For example, it may take the form of an urban infrastructure that uses recycling to bolster local economies, a system that uses micro traditions accessible to narrations to collect metrics and a sense of place, or a system that uses recycling to build ecosystems. Hence, sustainable design should not be associated with social or professional standing or represented by an external brand. With energy consumption as its primary concern, it should only reflect the real environmental and institutional possibilities at the specified site.

According to Gustavsson and Ripp (2022), cultural heritage should catalyze both the present and the future, particularly when considering the influence

of iconic and symbolic resources in cities and territories from an intergenerational viewpoint. In the Global Postcolonial era, when human rights, climate catastrophe, and technological interdependence are existing features of time and space boundaries, architects and urban planners must develop their processes while they seek to redefine their principles, practices, and routines. (Pappas & Jones, 2023).

Globalization and Homogenization of Architectural Design

Improving the quality of cultural experiences, lowering material inequities, and helping to raise the standard of living are all outcomes of global market shifts and financial volatility. However, the main problems stem from the fact that there are disagreements on how to maintain cultural heritage in a uniform, normative, and globally homogeneous form. There is an argument for universal patterns that take cultural values into account, with proponents of this view arguing that they should be able to apply complex architectural elements that reflect cultural norms while simultaneously reflecting a fusion of choices that reveal a single traditional, long-term facade. However, in order to preserve evidence and cultural inheritance that are separate from the global background from the intrusion of foreign-patterned objects—which frequently results in superfluous values and long, precise, and top-down maintenance activities—cultural artifacts inside some nations must be meticulously preserved according to their cultural code.

Globalization has played a crucial role in architectural design from the earliest stages of cultural transformation. It has allowed for incorporating external cultural elements into architectural components and has contributed to developing new architectural characteristics, such as post-modern and deconstructivist styles (Zort et al., 2023). Many modern building styles are rooted

in the global dissemination and promotion of Western-style architectural motifs that have evolved through many eras and tastes (Wei et al., 2018). Developers and experts in cultural interactions are at a political, economic, and technological disadvantage, in contrast to the widely held belief that architects and designers from Western Europe and North America are the ultimate arbiters of architectural power and wealth. Nevertheless, prominent commercial groups and well-known architectural firms have reaped the benefits of globalization, allowing them to build megaprojects and cash in on their "trademarks" (Chen & Liu, 2023).

Impact of Global Trends

Some cultural factors, such as cultural impairment, are used in the cultural design. In the framework of cultural heritage, the global digital divide was widened by the entrance of digital technologies and their significant acceleration due to the pandemic, which was already a problem for the multicultural, diversified, and polysemy-reflecting planet. In attaining SDG 10, which is the reduction of inequality, there is a significant disparity between the digital allocation of cultural heritage and worldwide trends. It has presented cultural designers with a crucial dilemma: how to accommodate a diverse and inclusive digital legacy? Community members are also encouraged to preserve their SoC history in the following scenario, which pertains to emergencies or situations of concern. Digital ethics in terms of inclusivity and recodification of the multiple realities, addressing the scale problematics while digitalizing the heritages, inaccuracies, and presentation biases; cultural taxonomies and cultural valorization; cultural stigma; neocolonialism; and identification of micro and macro digital cultures as heritage are all aspects of these challenges that necessitate a multi-leveled discussion.

Cultural heritage is profoundly affected by the worldwide tendency to enhance user experience and accessibility to digital spaces (Wu et al., 2021). The heritage research and management communities are utilizing new and innovative ways through websites, mobile applications, digital interfaces, and social media applications. These tools encompass various virtual representations and digital realities (Niccolucci et al., 2022). There has been a tremendous worldwide penetration of these platforms. As an example, there are hundreds upon thousands of websites that cater to clients all over the world (W. Tigwell et al., 2021). Virtual gaming and heritage management systems emphasizing games are two examples of the many cloud-based functionalities that are seeing increased pluralism to either increase their user base or attract more investors from around the world. In light of this situation and the rapid digitization of world cultural materials, together with an expanding user base, many people who discriminated against heritage, especially those who manifested it digitally, are now becoming brands associated with legacy on digital platforms. The indigenous and marginalized communities' cultural manifestations on these platforms take elements from well-known Western traditions and give them their digital spin. Throughout the world, countless digital legacy elements and materials have been digitized as part of heritage. However, methods for digital preservation and international curating have remained the same. Digital preservation is mandated by some of the most prominent heritage preservation legislative bodies, and many smaller authorities have also implemented digital preservation rules.

Loss of Cultural Identity

One common explanation for culture shock among international visitors is the need to adapt to different cultural and environmental norms due to

globalization. This phenomenon has plenty of documentation and may be analyzed through other phenomena such as makeup, women's status, traditional medicine, stronger preferences and tastes, and the percentage of people living in metropolitan areas. Some examples of groups that have used this notion are people who have attempted to study or find new jobs in a new city, migrated from rural to urban areas or were separated by natural calamities.

Consequently, changes in media and communication technologies and the internationalization of the economy constitute the bulk of globalization, with cultural impacts being a minor portion. Much focus is on how cultures spread more broadly and how popular culture becomes more globalized, which might mean local cultures must catch up. Rather than focusing on economics or policies, most scholarly literature delves into the symbolic, expressive, or identity-based significance of cultural commodities (Gustafsson & Ripp, 2022).

The term "globalization" refers to the rapid spread of ideas and practices over the globe, leading to a melting pot of cultures. According to Niccolucci et al. (2022), various schools of thought agree that if cultures become too similar, individuals who care about and work to maintain them may lose their cultural identity. There has been a lessening of cultural barriers all around the globe as a consequence of globalization, which has altered the pace of movement across societies and reshaped the planet.

Balancing Tradition and Modernity

The powers of transformation and renewal disproportionately impact urban areas since a city's very essence is its eagerness to adapt. Cities, particularly their capitals, have buildings with a wealth of history, ideas, and dreams. A larger community's plans need to balance the community's cultural and historical legacy and the

needs of modern society. At the same time, traditional areas' cultural legacy used to dictate how an area needed to be transformed; the current population's ruthlessness in the land, modern design, and planning has turned the tables (AlFadalat & Al-Azhari, 2022). The art form is currently in its early stages; hence, no tangible structures exist. Preserving cultural and historical areas requires ongoing city planning and architecture analysis. As long as the constant relocation to the same spot is blamed on changes brought about by contemporary lifestyles, the right strategy to improve this type of building will always be up for debate. The design and production of the schedule are guided by the extent to which progress in a particular location respects its cultural assets.

A society's cultural identity is reflected in its culture, which is formed by long-standing traditions. It sustains the soul and reveals our history, present, and future (Niccolucci et al., 2022). Culture is something that can change and adapt in response to both internal and external factors. There may be no codified laws or constitutions, but our cultural practices are preserved by being passed down from one generation to another. What we call "heritage" can refer to physical and immaterial cultural artifacts, monuments, and places of architecture that connect different eras. The best way to ensure culture is still relevant is to make sure people remember them and find ways to incorporate them into modern life. Tradition and culture substantially impact architectural design, which is unsurprising given the importance of culture and legacy in molding our consciousness.

CONCLUSION

The city preserves its historical assets in order to build a future urban environment that is both sustainable and livable. Contrarily, urban transformation destroys cultural heritage and

profoundly modifies the historical framework. Industrial cities, in particular, have seen tremendous transformations due to their social and physical environments; these iconic landmarks, which shape the city's character, are at risk of extinction. There are three distinct methods of restoration practices. In order to ensure the continuity of cultural traditions, it is essential to adhere to the standards set out for the conservation of historic urban tissues, which requires the use of time-tested methods and authentic materials to repair older buildings. Its unique characteristics should be protected so the city can continue benefiting from them. Reconstructing historically situated areas that have undergone transformation and lost their distinctive features is the goal of historical urban tissue replication. Alterations or additions can be made to where the street is either broader or narrower than the original. Reconstructing a place is bringing it back to its original state. Reply restoring historic structures is to convey their past as accurately as possible. Depending on the building's age, choose replacement materials accordingly. Lastly, traditional building processes and materials should be employed, and additives should be chosen based on the building's historical layer. To sum up, keeping the city's history and culture alive is crucial for future generations because it maintains many cities. Its cultural and symbolic features help unite people and make them feel safe. A primary goal of the metropolitan municipality is to ensure their continued existence and use them to advance the city's economy and social fabric. Architectural design is shaped by cultural heritage and other factors. According to Gustavsson and Ripp (2022), urban heritage plays a significant role in shaping the physical character of cities. Historic sites, residential architecture, and traditional crafts are all interdependent.

Additionally, promoting urban sustainability is a goal of heritage conservation. Facilitating savings

from various sources, including energy, can promote sustainable development. Proving urban transformation and sustainable development has relied heavily on restoring and repurposing historical structures using modern ways. Moreover, heritage tourism will inevitably introduce local and global communities to cultural heritage and urban identities. I am a significant factor in cities' expanding economic and social influence.

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